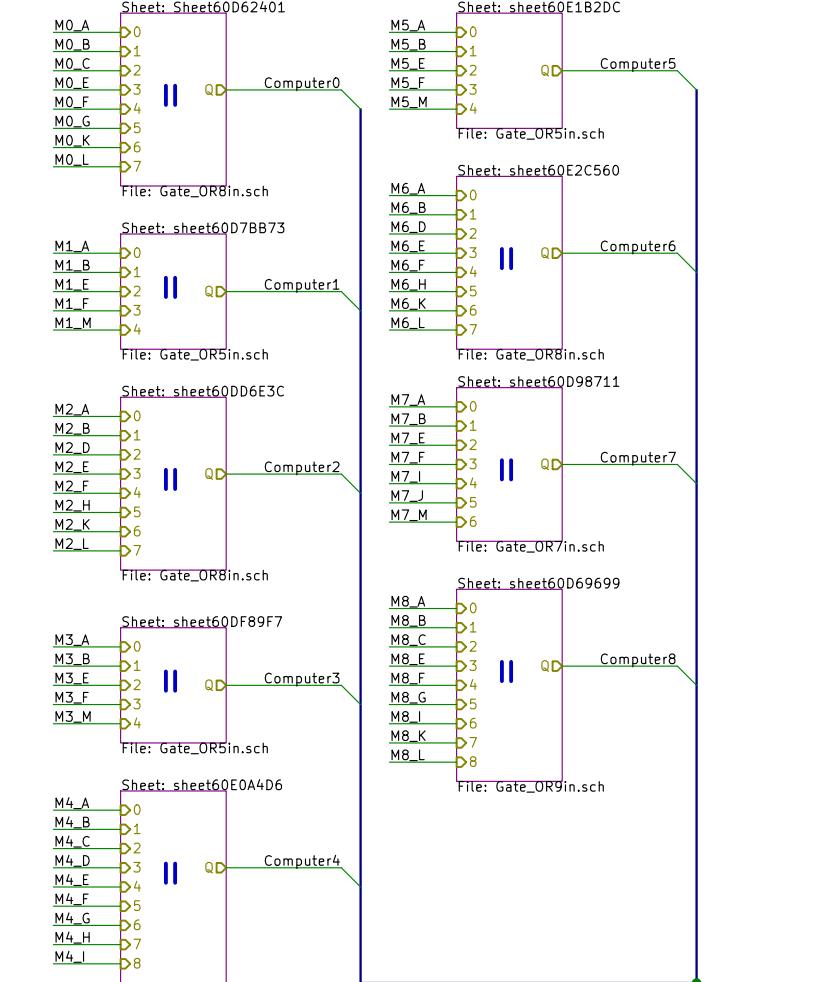


1 2 3 4 5 6 7 8



Computer8
Computer7
Computer6
Computer5
Computer4
Computer3
Computer2
Computer1
Computer0

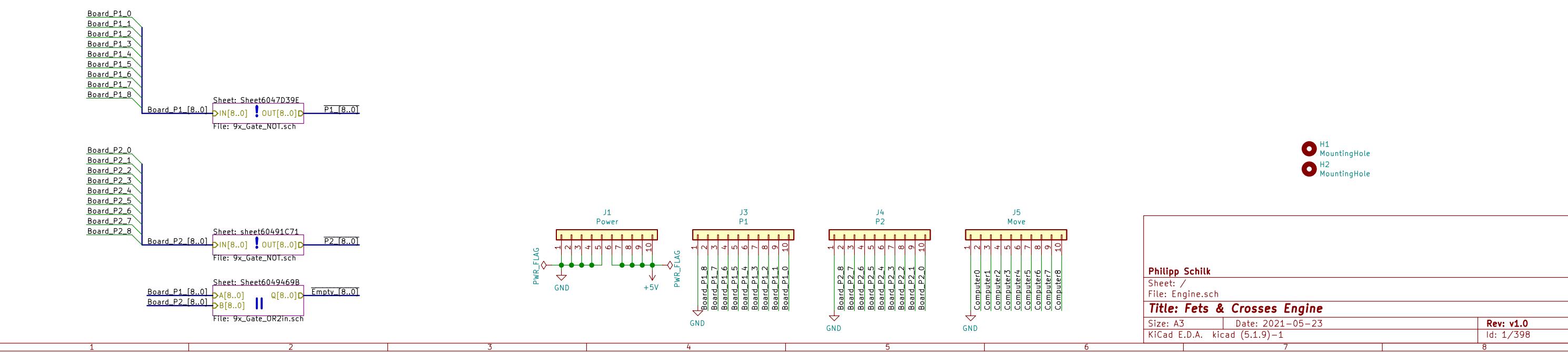


H1
Mounting Hole



H2
Mounting Hole

Philipp Schilk
Sheet: /
File: Engine.sch
Title: Fets & Crosses Engine
Size: A3 Date: 2021-05-23
KiCad E.D.A. kicad (5.1.9)-1 Rev: v1.0
Id: 1/398



A

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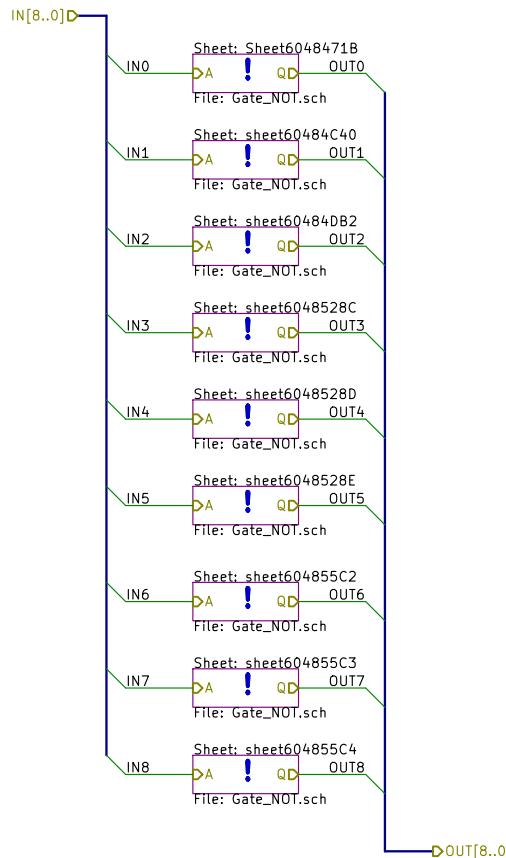
D

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**Philipp Schilk****Sheet: /Sheet6047D39E/**
File: 9x_Gate_NOT.sch**Title: Fets & Crosses Engine****Size: A4** **Date:**
KiCad E.D.A. kicad (5.1.9)-1**Rev: v1.0** **Id: 2/398**

A

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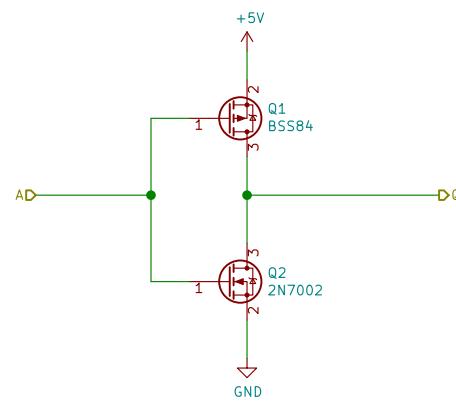
D

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet6047D39E/Sheet6048471B/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 3/398

A

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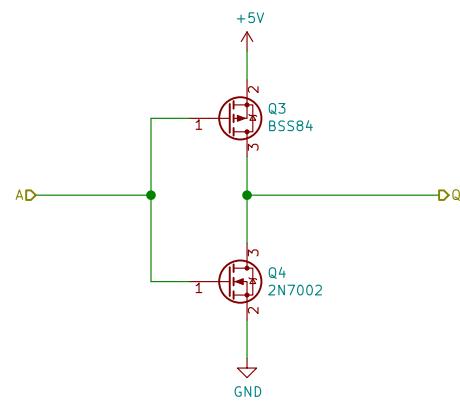
D

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet6047D39E/sheet60484C40/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 4/398

A

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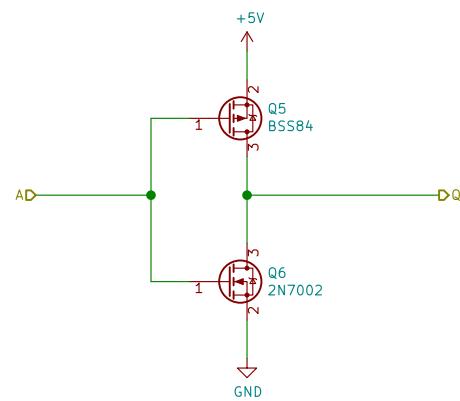
D

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet6047D39E/sheet60484DB2/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 5/398

A

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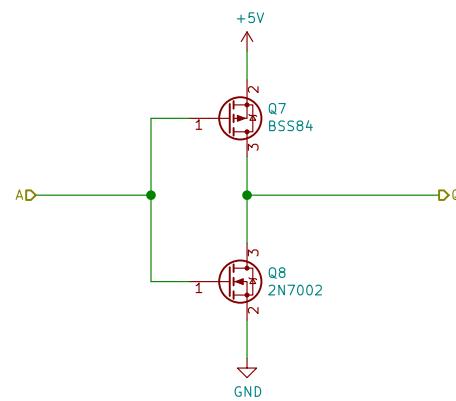
D

A

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet6047D39E/sheet6048528C/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 6/398

A

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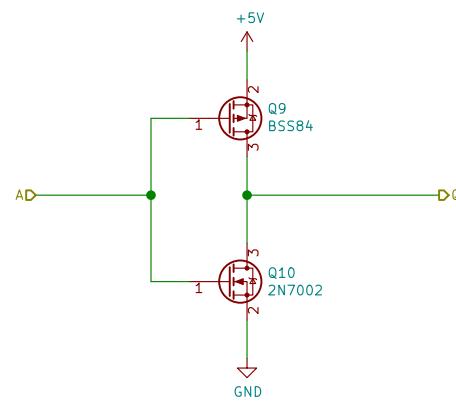
D

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet6047D39E/sheet6048528D/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 7/398

A

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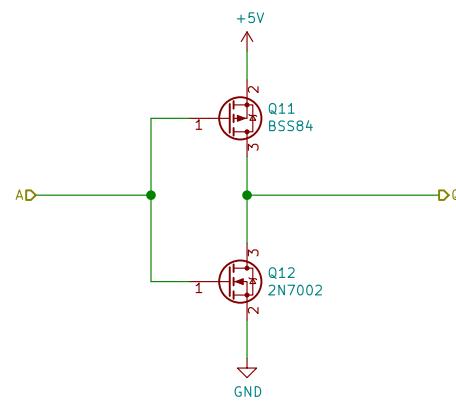
D

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet6047D39E/sheet6048528E/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 8/398

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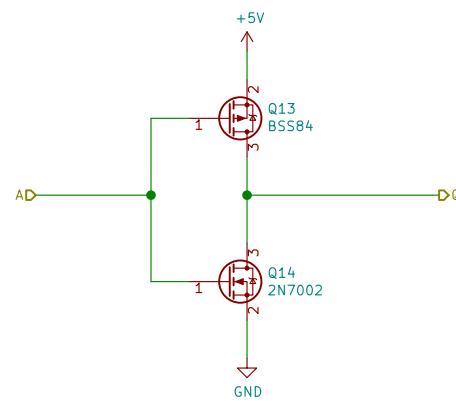
D

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet6047D39E/sheet604855C2/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 9/398

A

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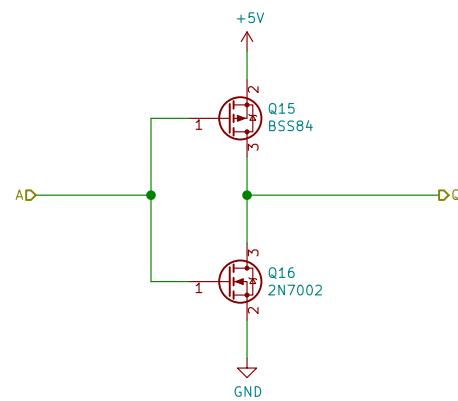
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet6047D39E/sheet604855C3/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 10/398

A

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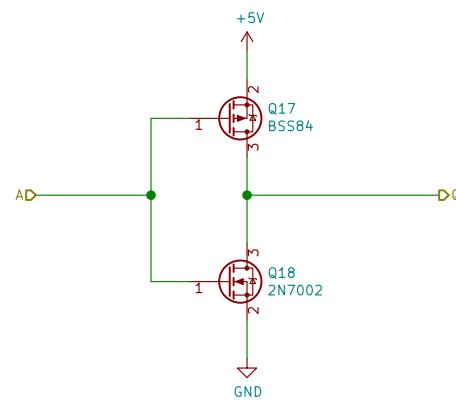
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet6047D39E/sheet604855C4/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 11/398

A

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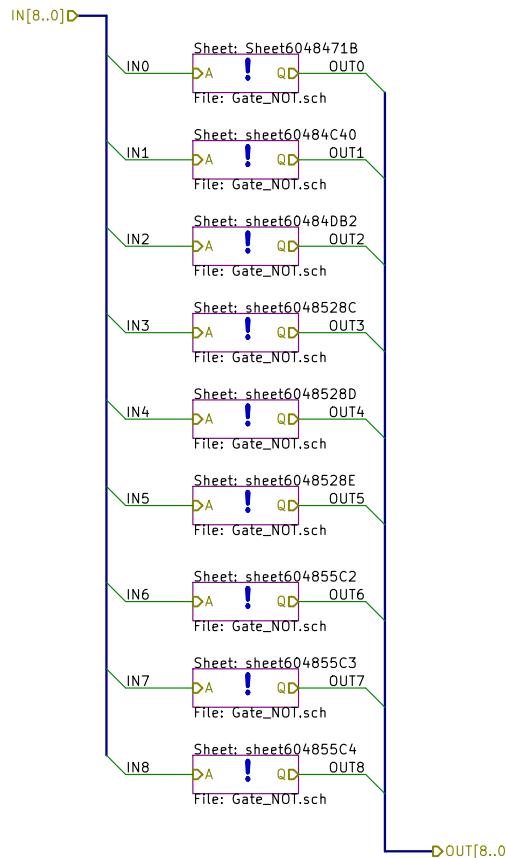
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**Philipp Schilk****Sheet: /sheet60491C71/**
File: 9x_Gate_NOT.sch**Title: Fets & Crosses Engine****Size: A4** **Date:**
KiCad E.D.A. kicad (5.1.9)-1**Rev: v1.0** **Id: 12/398**

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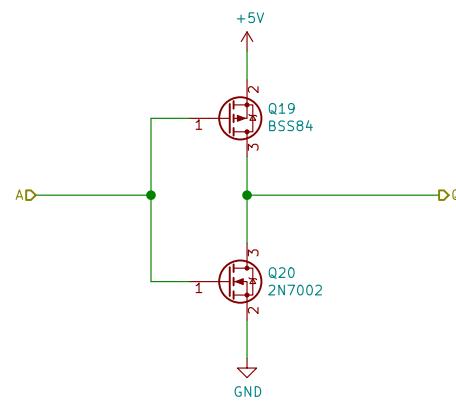
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet60491C71/Sheet6048471B/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 13/398

A

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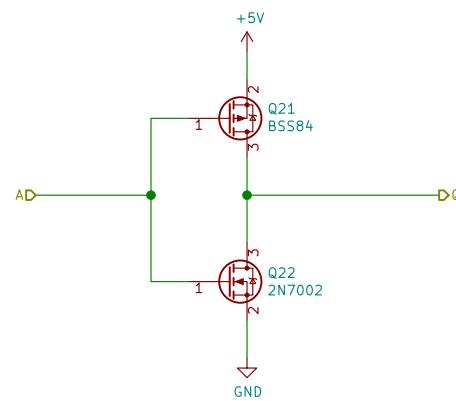
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet60491C71/sheet60484C40/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 14/398

A

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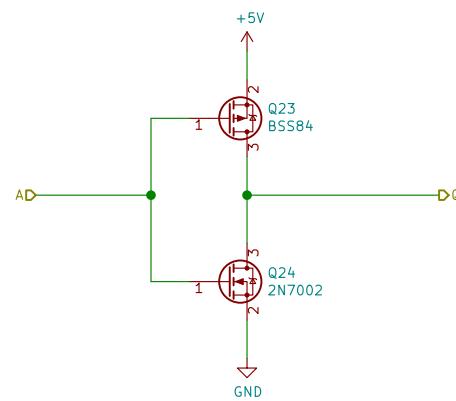
D

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet60491C71/sheet60484DB2/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 15/398

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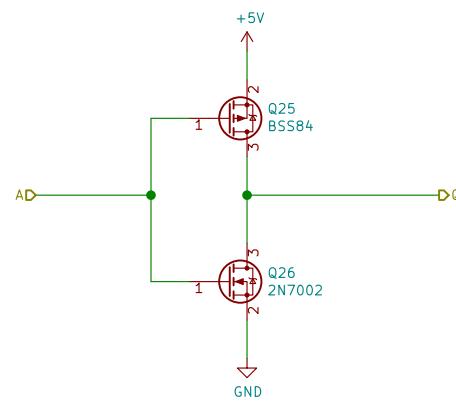
D

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet60491C71/sheet6048528C/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 16/398

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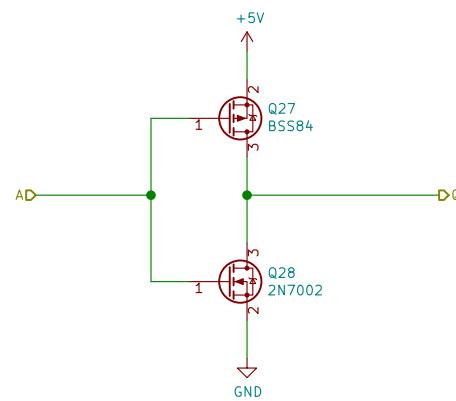
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet60491C71/sheet6048528D/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 17/398

A

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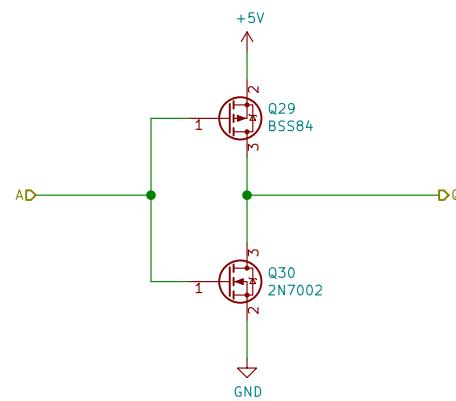
D

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet60491C71/sheet6048528E/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 18/398

A

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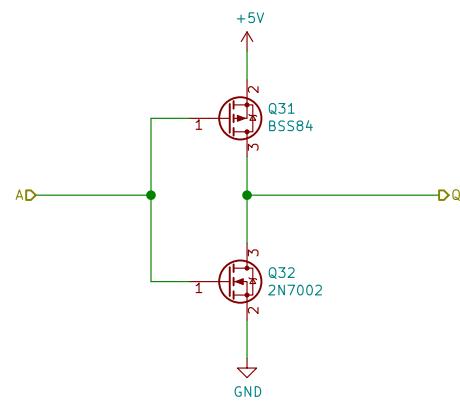
D

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet60491C71/sheet604855C2/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 19/398

A

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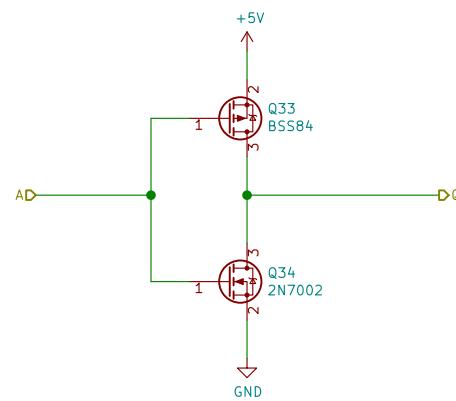
D

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet60491C71/sheet604855C3/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 20/398

A

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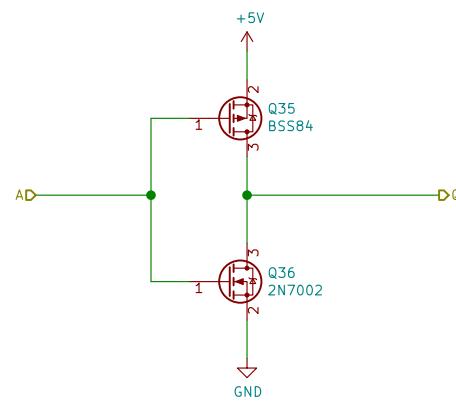
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet60491C71/sheet604855C4/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 21/398

A

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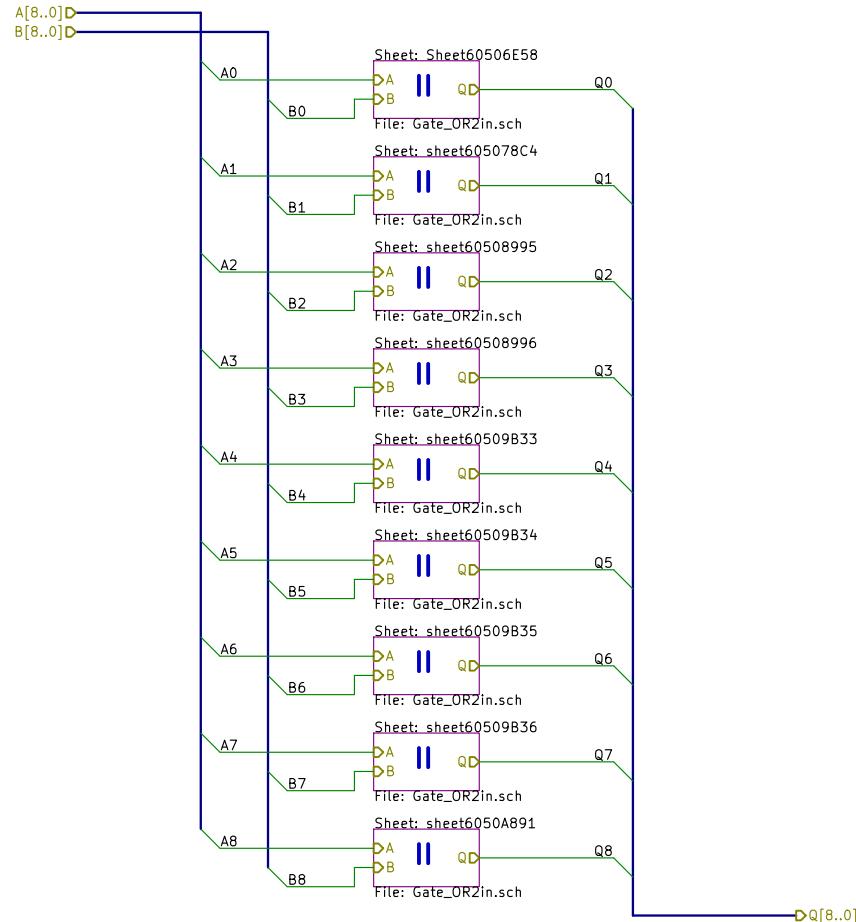
D

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**Philipp Schilk**Sheet: /Sheet6049469B/
File: 9x_Gate_OR2in.sch**Title: Fets & Crosses Engine**Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 22/398

A

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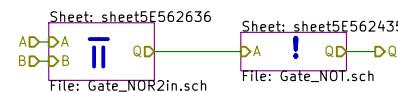
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic
Philipp Schilk
Sheet: /Sheet6049469B/Sheet60506E58/
File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 23/398

A

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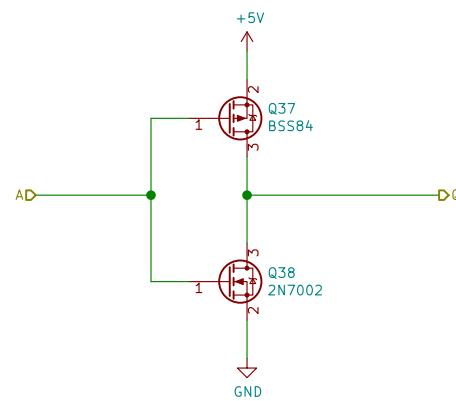
D

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet6049469B/Sheet60506E58/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 24/398

A

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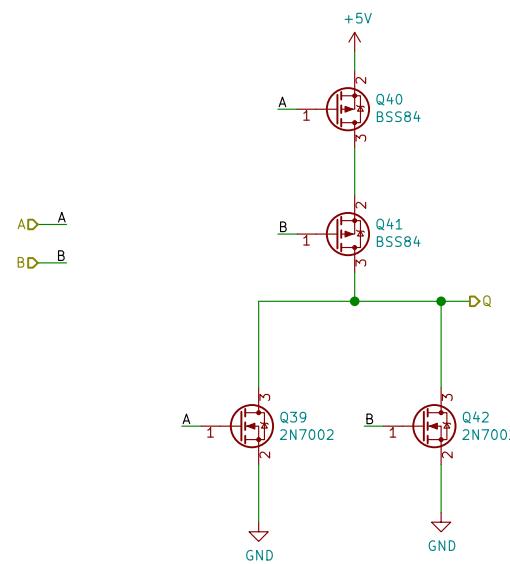
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet6049469B/Sheet60506E58/sheet5E562636/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 25/398

A

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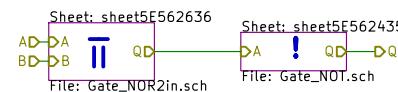
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet6049469B/sheet605078C4/

File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 26/398

A

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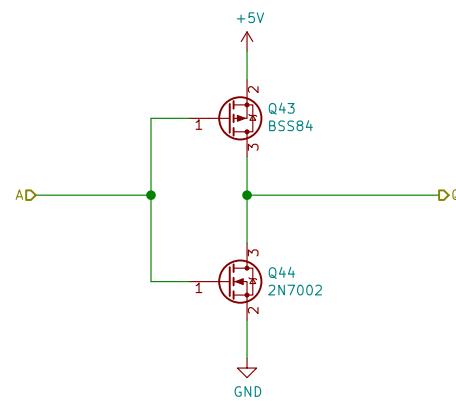
D

A

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet6049469B/sheet605078C4/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 27/398

A

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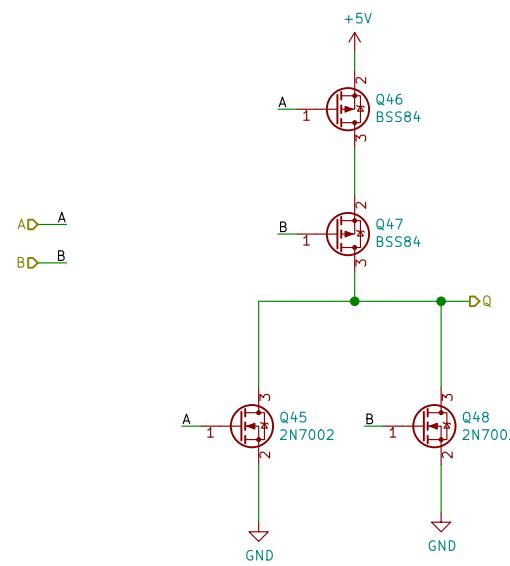
B

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet6049469B/sheet605078C4/sheet5E562636/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 28/398

A

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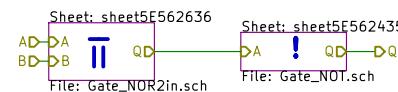
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet6049469B/sheet60508995/

File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 29/398

A

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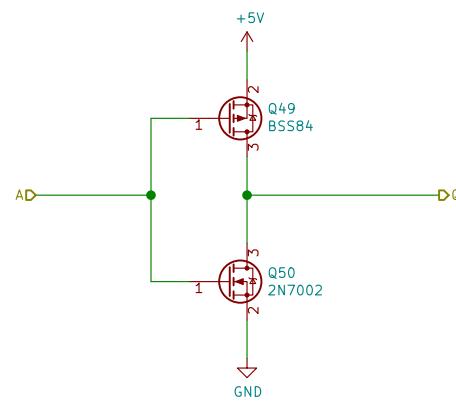
D

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet6049469B/sheet60508995/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 30/398

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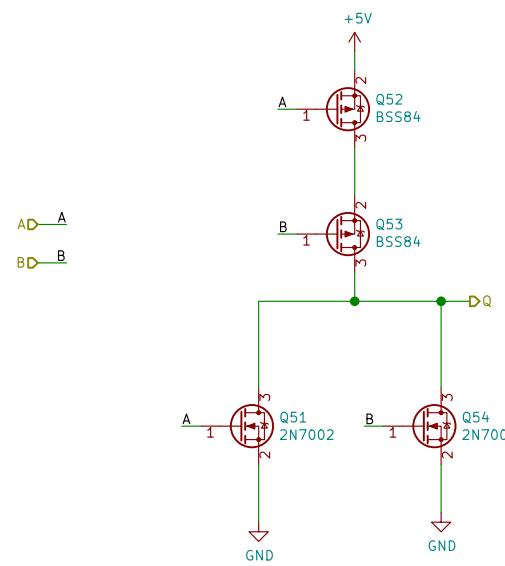
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet6049469B/sheet60508995/sheet5E562636/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 31/398

A

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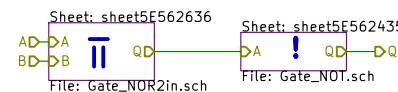
B

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet6049469B/sheet60508996/

File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 32/398

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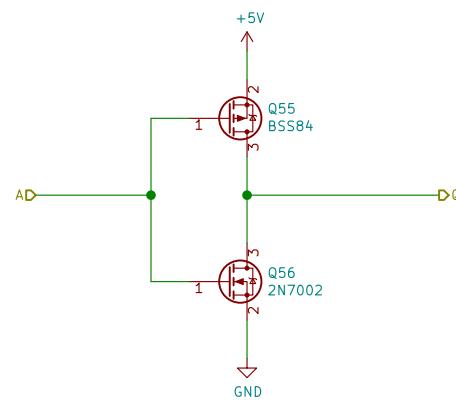
D

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet6049469B/sheet60508996/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 33/398

A

A

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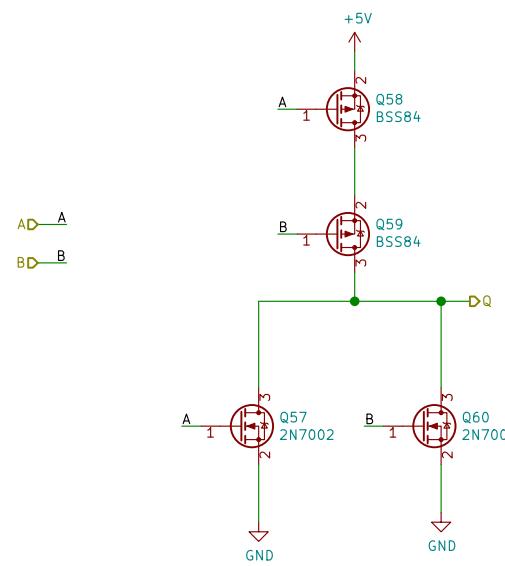
B

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet6049469B/sheet60508996/sheet5E562636/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 34/398

A

A

B

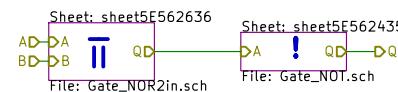
B

C

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D

https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet6049469B/sheet60509B33/

File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 35/398

A

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C

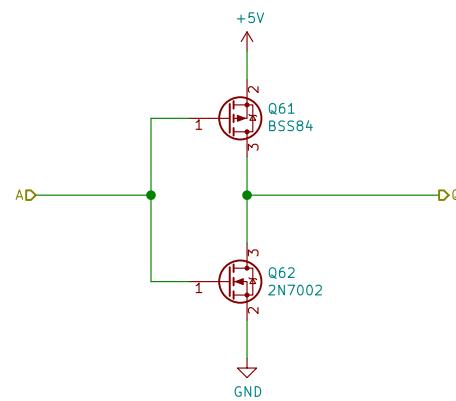
D

A

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet6049469B/sheet60509B33/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 36/398

A

A

B

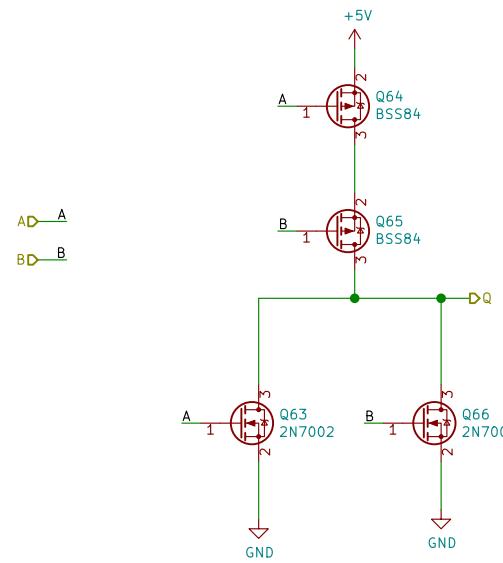
B

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet6049469B/sheet60509B33/sheet5E562636/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 37/398

A

A

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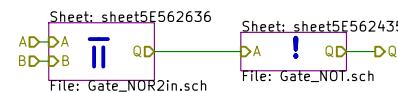
B

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet6049469B/sheet60509B34/

File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 38/398

A

B

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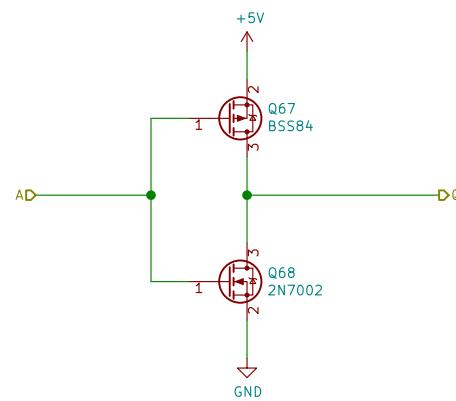
D

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet6049469B/sheet60509B34/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 39/398

A

A

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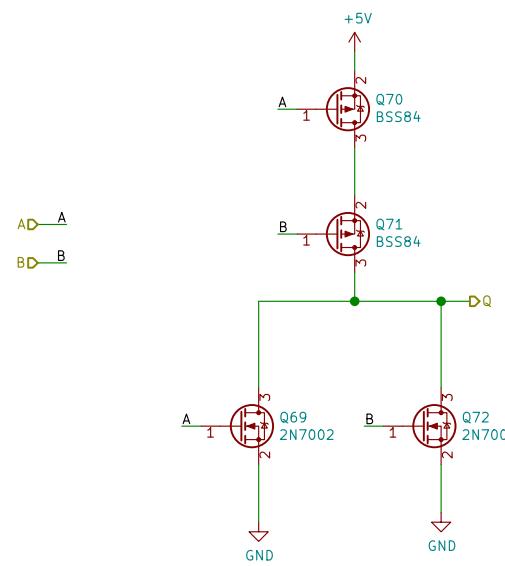
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet6049469B/sheet60509B34/sheet5E562636/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 40/398

A

A

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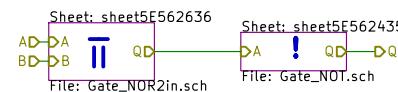
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet6049469B/sheet60509B35/

File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 41/398

A

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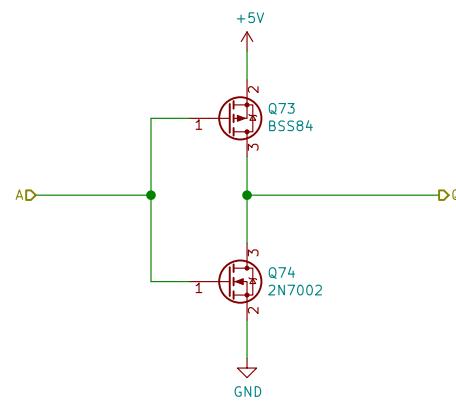
D

A

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet6049469B/sheet60509B35/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 42/398

A

A

B

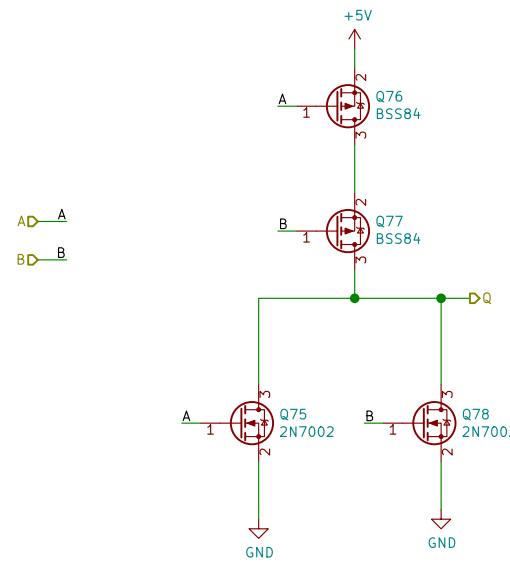
B

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet6049469B/sheet60509B35/sheet5E562636/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 43/398

A

A

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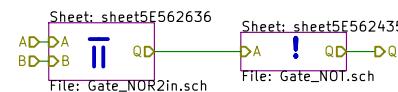
B

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D

https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet6049469B/sheet60509B36/

File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 44/398

A

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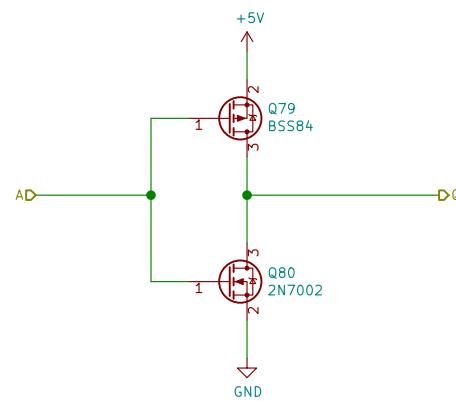
D

A

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet6049469B/sheet60509B36/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 45/398

A

A

B

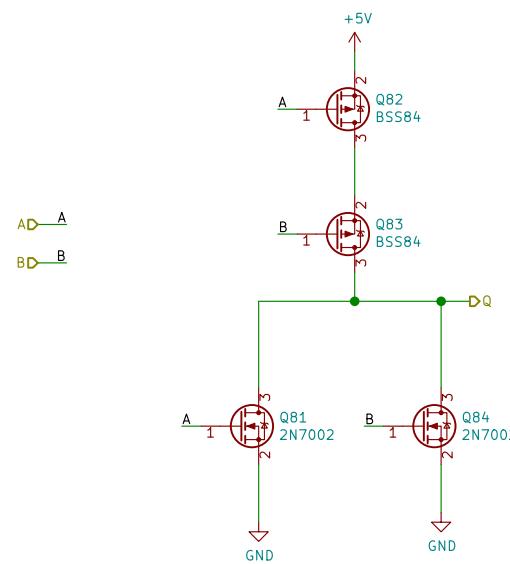
B

C

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D



https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet6049469B/sheet60509B36/sheet5E562636/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 46/398

A

A

B

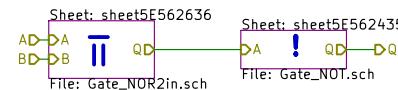
B

C

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic
Philipp Schilk
 Sheet: /Sheet6049469B/sheet6050A891/
 File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 47/398

A

B

C

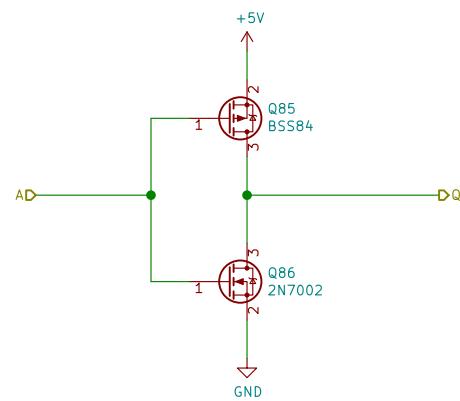
D

A

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D

https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet6049469B/sheet6050A891/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 48/398

A

A

B

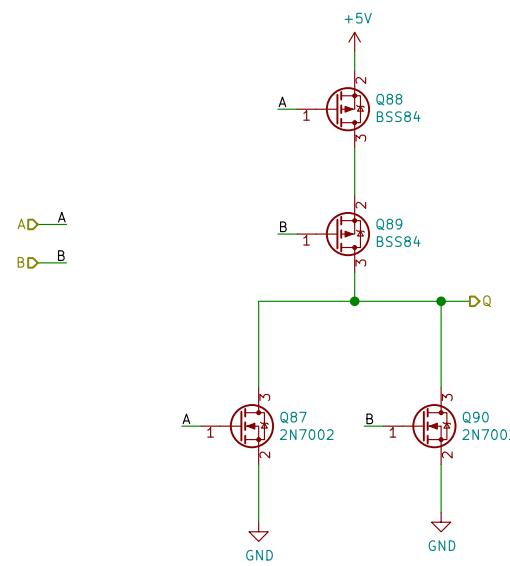
B

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet6049469B/sheet6050A891/sheet5E562636/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 49/398

A

A

B

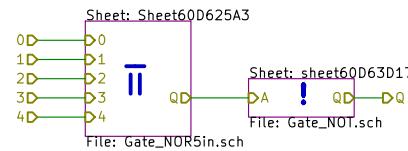
B

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D

**Philipp Schilk**Sheet: /sheet60E1B2DC/
File: Gate_OR5in.sch**Title: Fets & Crosses Engine**Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 50/398

1 2 3 4 5 6

A

A

B

B

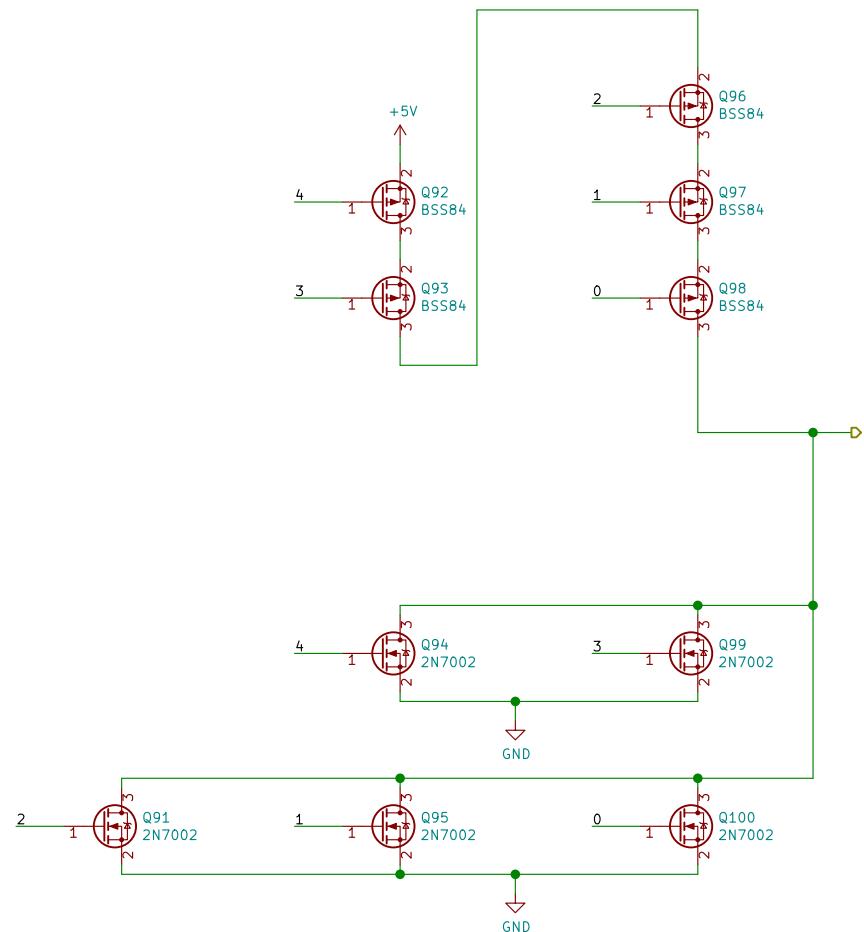
C

C

D

D

0D 0
1D 1
2D 2
3D 3
4D 4



https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet60E1B2DC/Sheet60D625A3/

File: Gate_NOR5in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 51/398

1 2 3 4 5 6

A

B

C

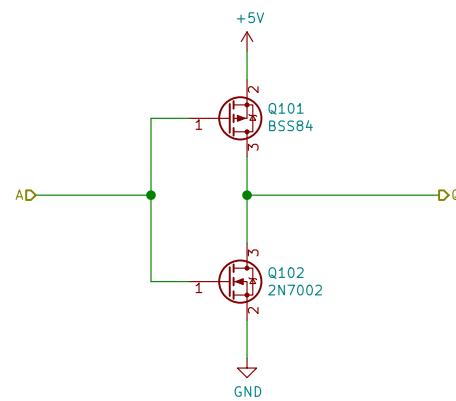
D

A

B

C

D

https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet60E1B2DC/sheet60D63D17/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 52/398

A

A

B

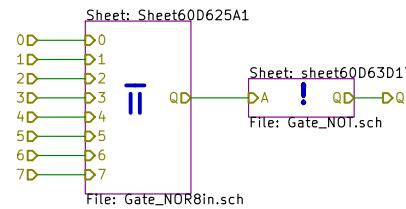
B

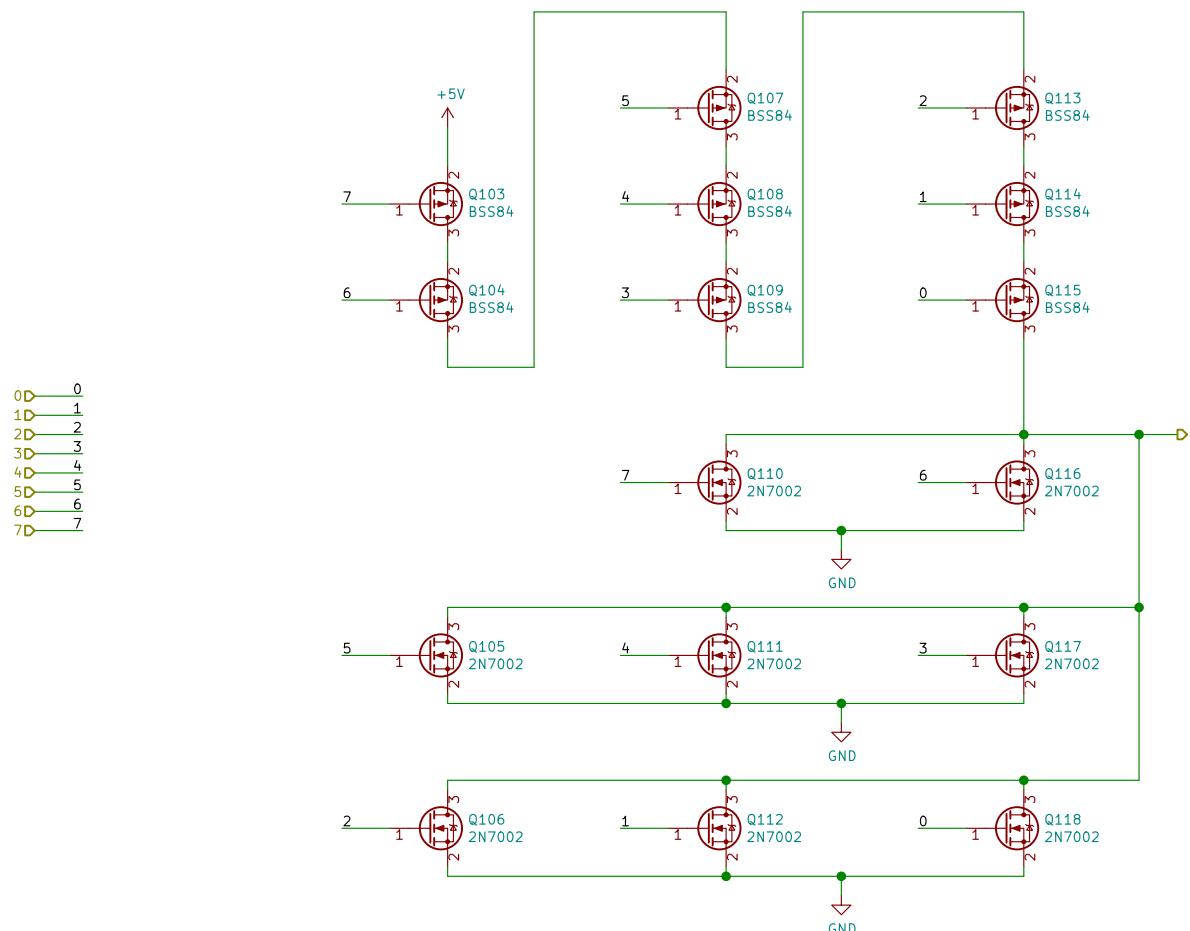
C

C

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D

**Philipp Schilk**Sheet: /sheet60E2C560/
File: Gate_OR8in.sch**Title: Fets & Crosses Engine**Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 53/398



https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet60E2C560/Sheet60D625A1/

File: Gate_NOR8in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 54/398

A

B

C

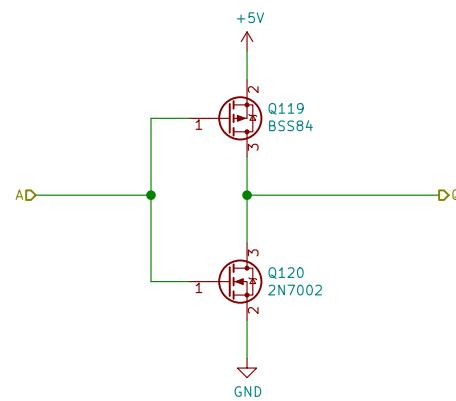
D

A

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C

D

https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet60E2C560/sheet60D63D17/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 55/398

A

A

B

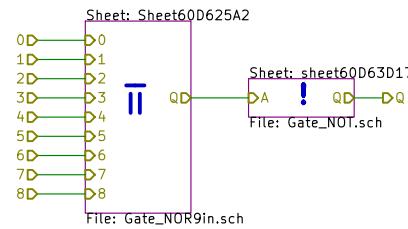
B

C

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D

**Philipp Schilk**

Sheet: /sheet60E0A4D6/
File: Gate_OR9in.sch

Title: Fets & Crosses Engine

Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 56/398

A

B

C

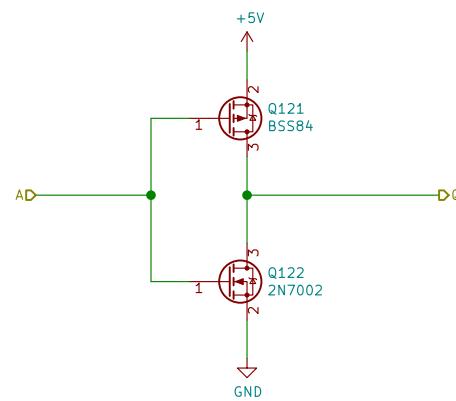
D

A

B

C

D

https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet60E0A4D6/sheet60D63D17/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

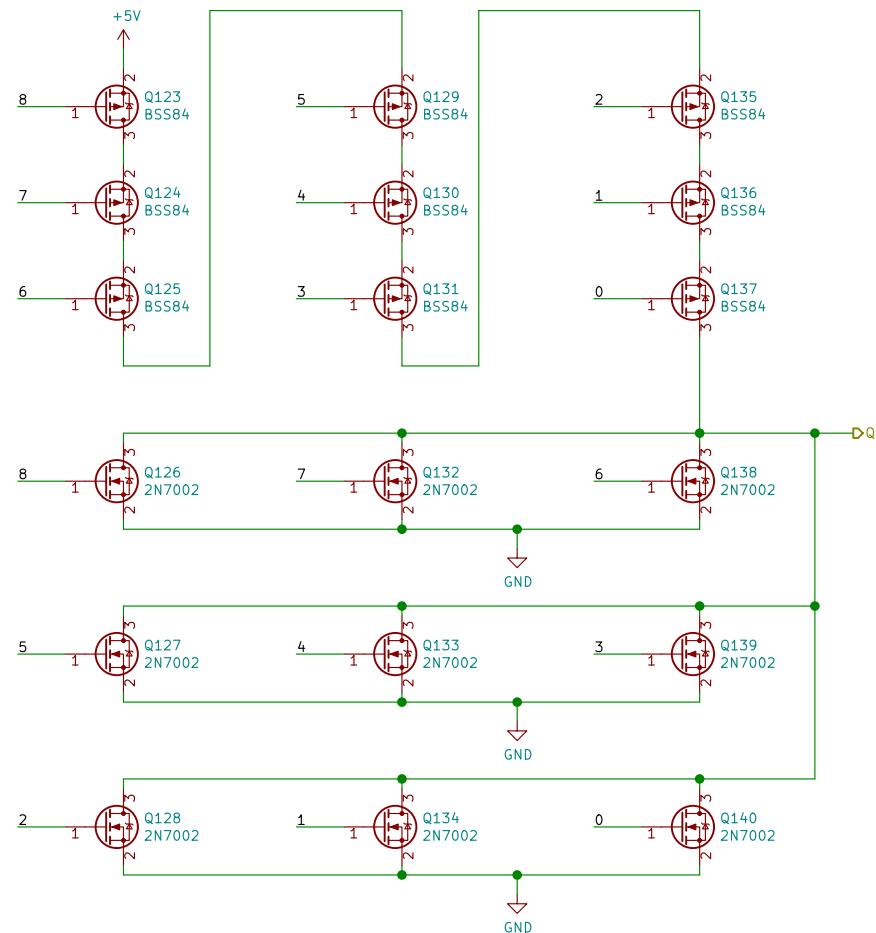
Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 57/398

A



B

C

D

https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet60E0A4D6/Sheet60D625A2/

File: Gate_NOR9in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 58/398

A

A

B

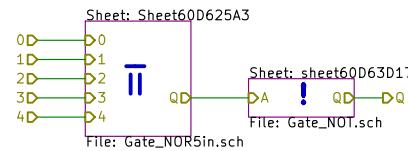
B

C

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D

**Philipp Schilk**Sheet: /sheet60DF89F7/
File: Gate_OR5in.sch**Title: Fets & Crosses Engine**Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 59/398

1 2 3 4 5 6

A

A

B

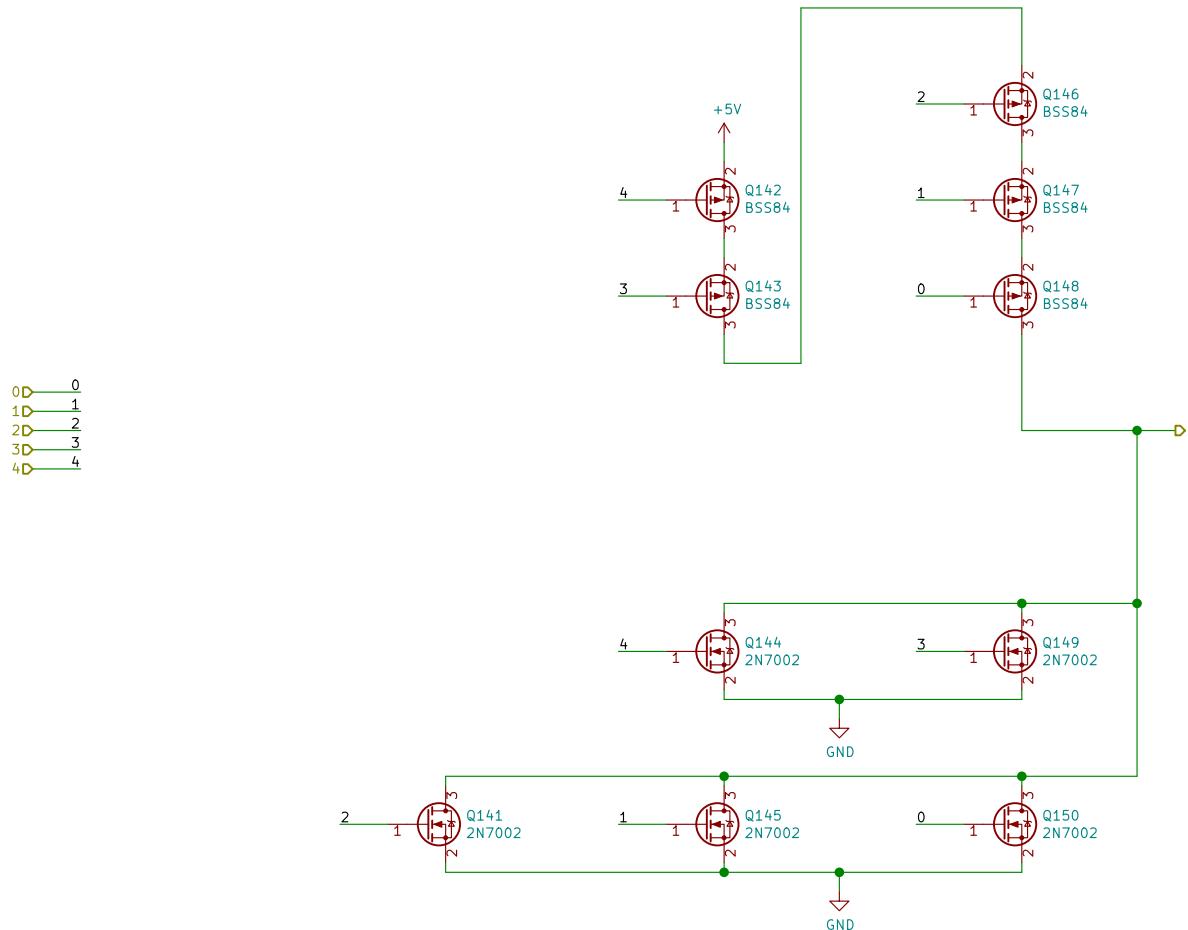
B

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D

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet60DF89F7/Sheet60D625A3/

File: Gate_NOR5in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 60/398

1 2 3 4 5 6

A

B

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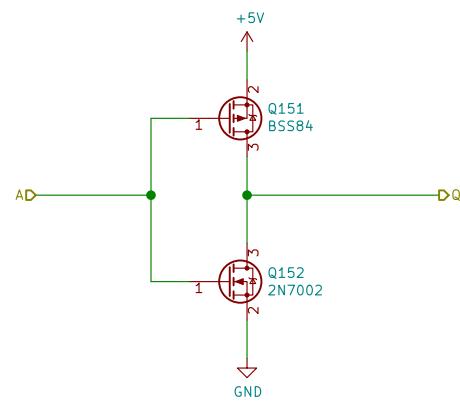
D

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet60DF89F7/sheet60D63D17/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 61/398

A

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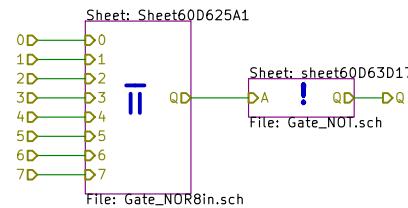
B

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D

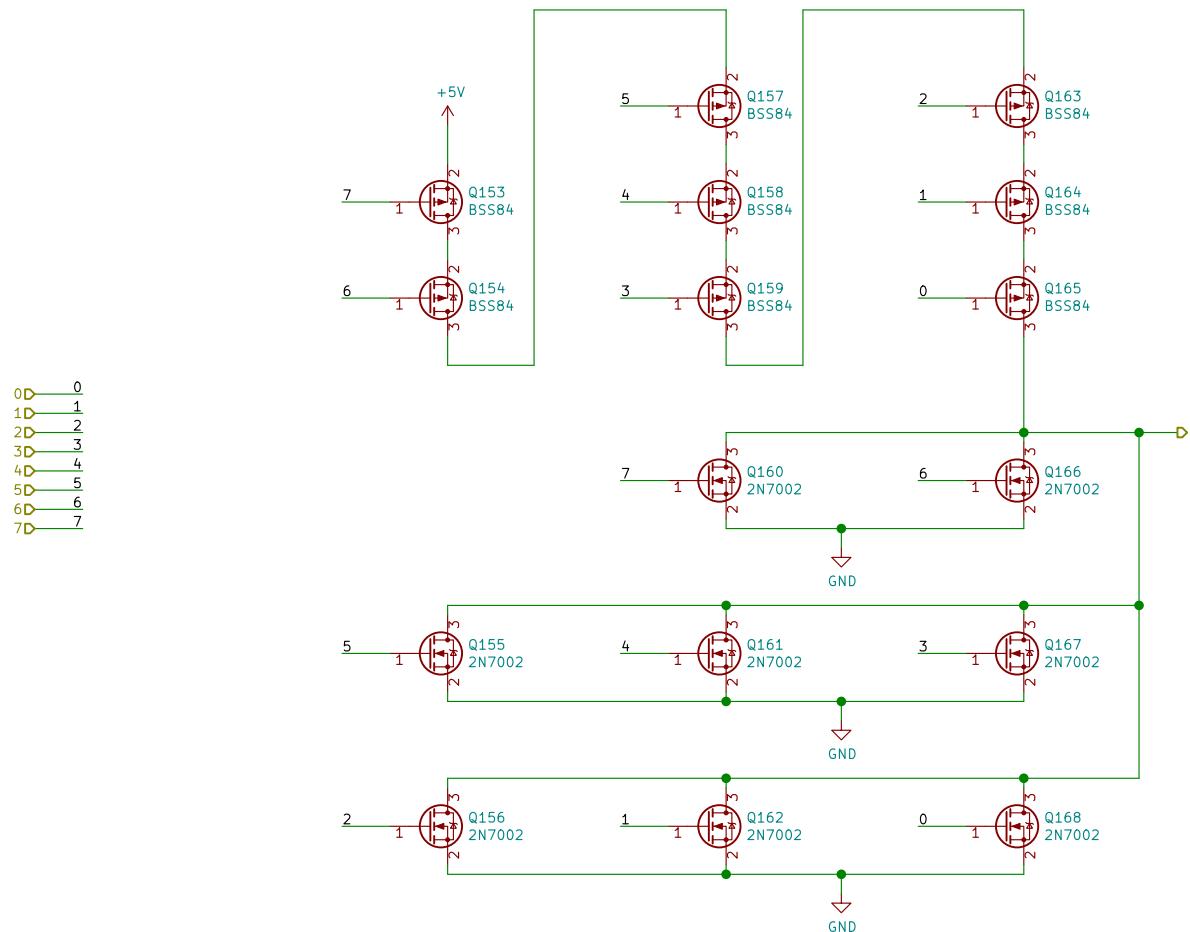
**Philipp Schilk**

Sheet: /sheet60DD6E3C/
File: Gate_OR8in.sch

Title: Fets & Crosses Engine

Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 62/398



https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet60DD6E3C/Sheet60D625A1/

File: Gate_NOR8in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 63/398

A

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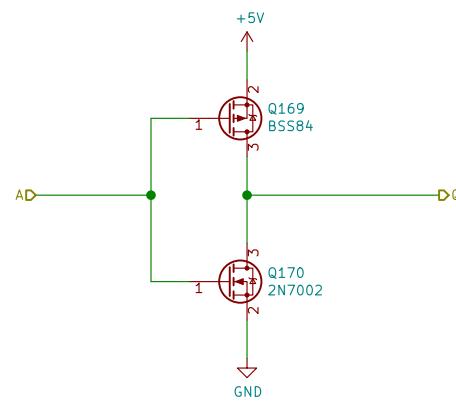
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet60DD6E3C/sheet60D63D17/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 64/398

A

A

B

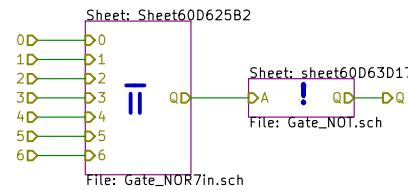
B

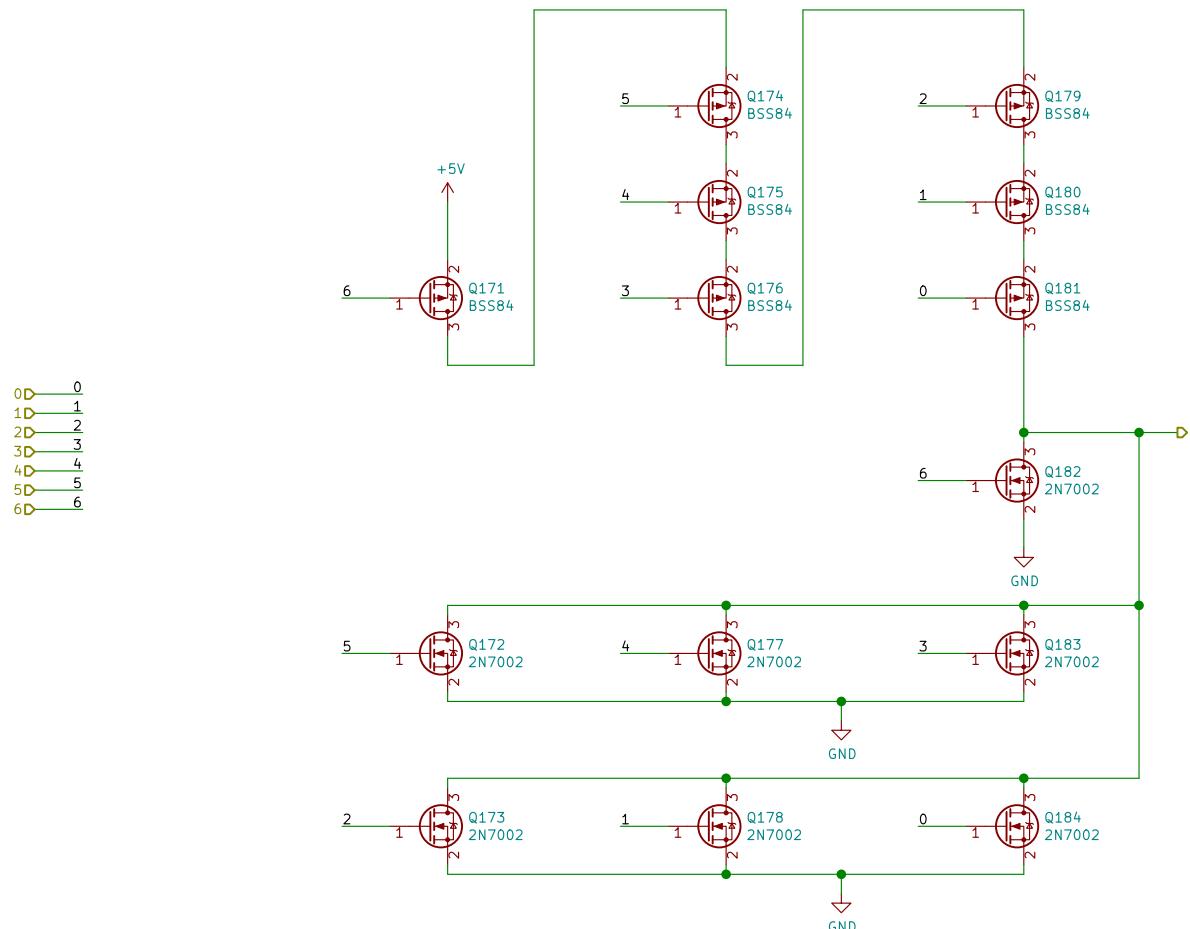
C

C

D

D

**Philipp Schilk**Sheet: /sheet60D98711/
File: Gate_OR7in.sch**Title: Fets & Crosses Engine**Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 65/398



https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet60D98711/Sheet60D625B2/

File: Gate_NOR7in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 66/398

A

B

C

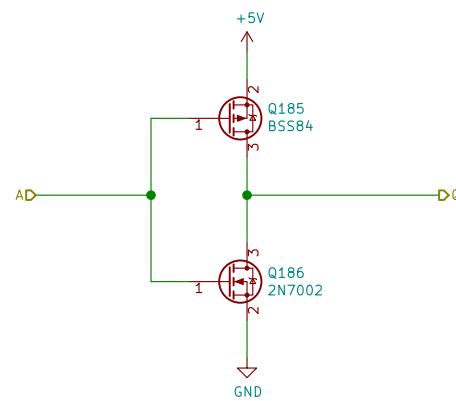
D

A

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet60D98711/sheet60D63D17/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 67/398

A

A

B

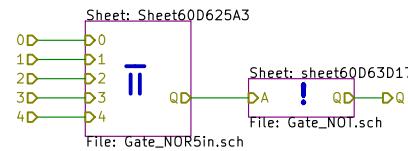
B

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**Philipp Schilk**

Sheet: /sheet60D7BB73/
File: Gate_OR5in.sch

Title: Fets & Crosses Engine

Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 68/398

1 2 3 4 5 6

A

A

B

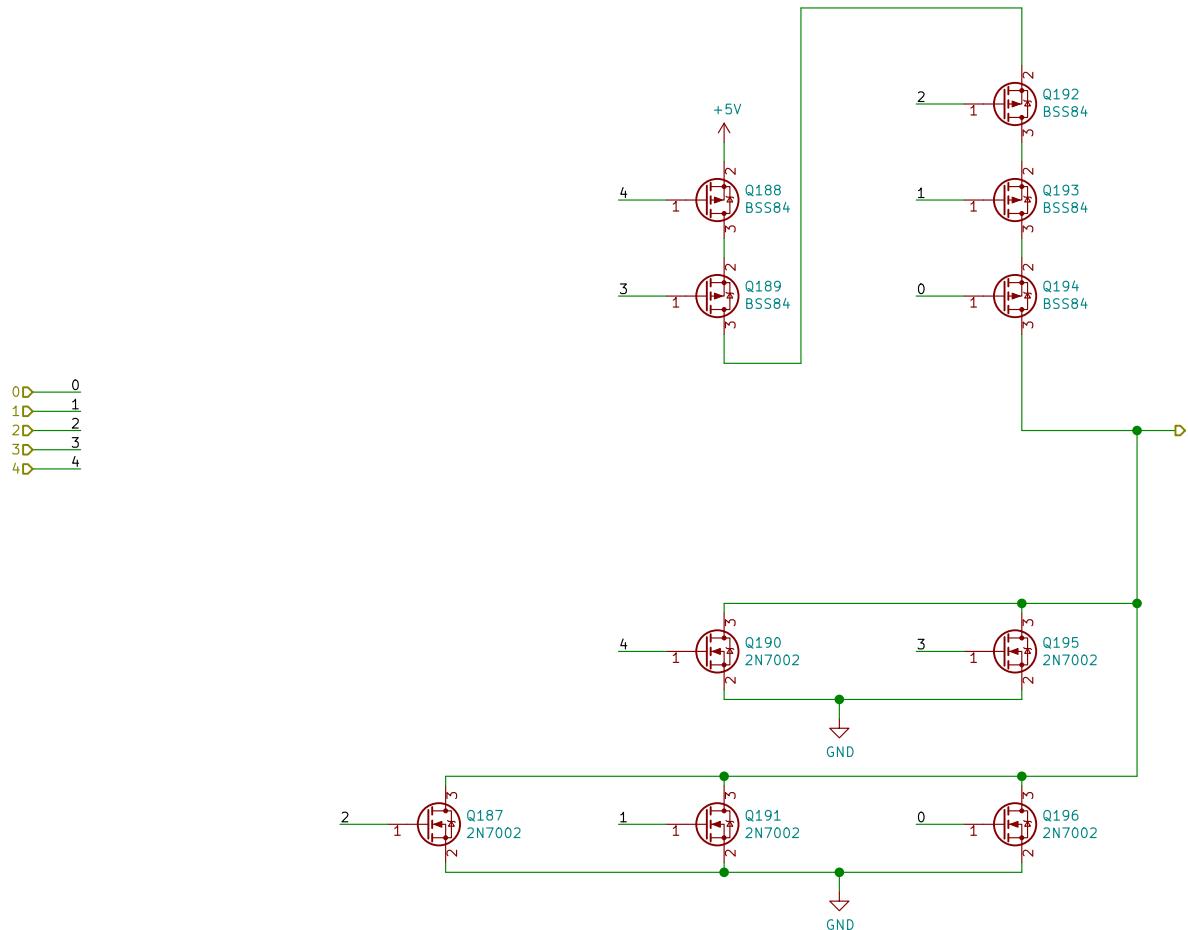
B

C

C

D

D



https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet60D7BB73/Sheet60D625A3/

File: Gate_NOR5in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 69/398

1 2 3 4 5 6

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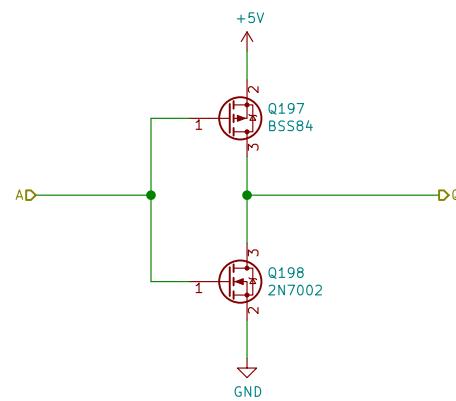
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet60D7BB73/sheet60D63D17/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 70/398

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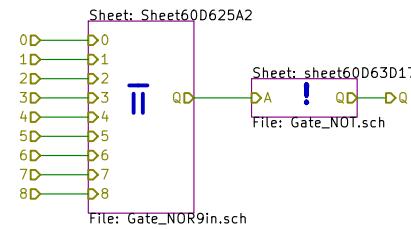
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Philipp Schilk

Sheet: /sheet60D69699/
File: Gate_OR9in.sch

Title: Fets & Crosses Engine

Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 71/398

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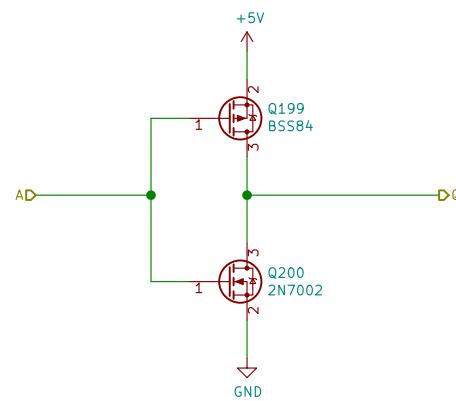
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet60D69699/sheet60D63D17/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

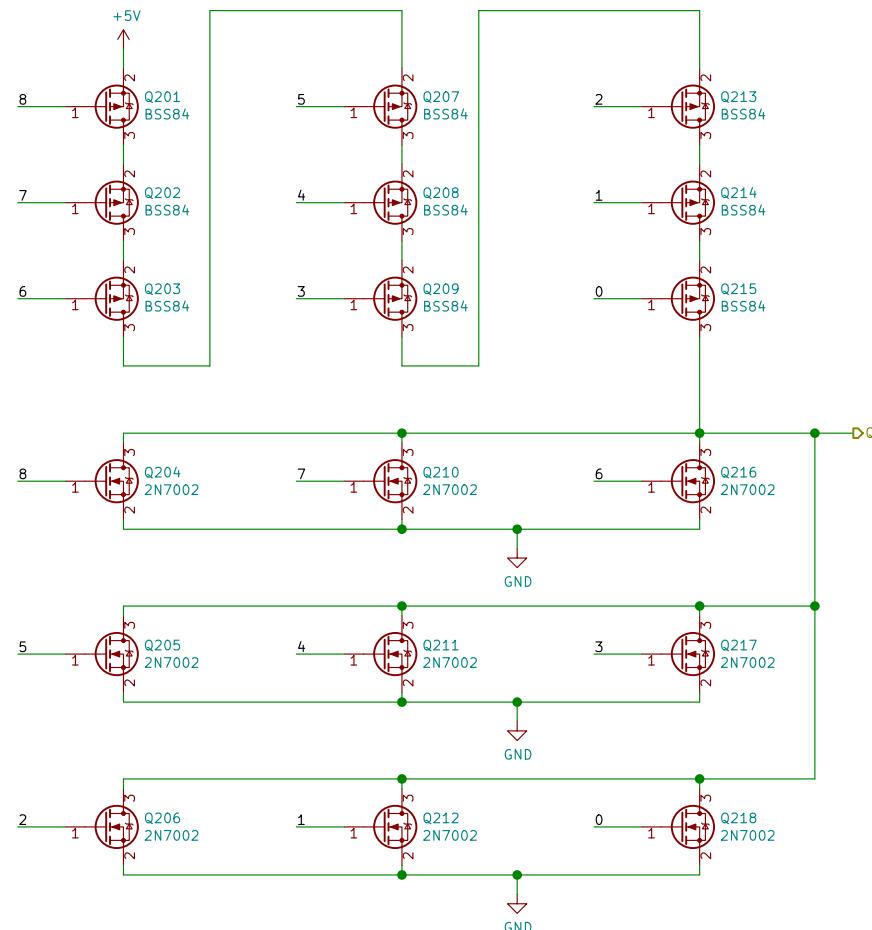
Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 72/398

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet60D69699/Sheet60D625A2/

File: Gate_NOR9in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 73/398

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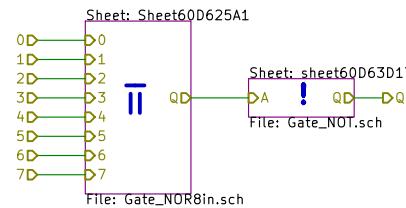
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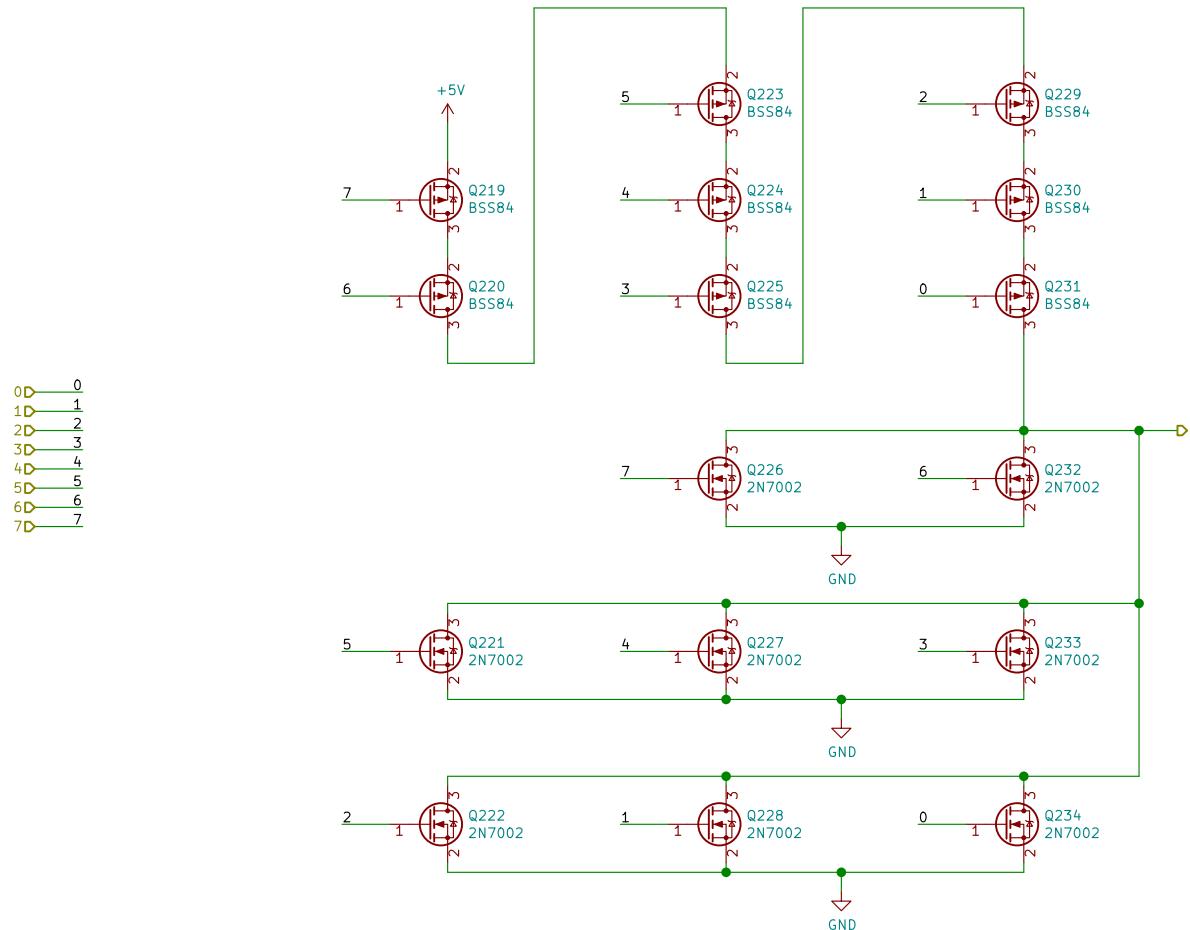
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File: Gate_OR8in.sch**Title: Fets & Crosses Engine**Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 74/398



https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet60D62401/Sheet60D625A1/

File: Gate_NOR8in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 75/398

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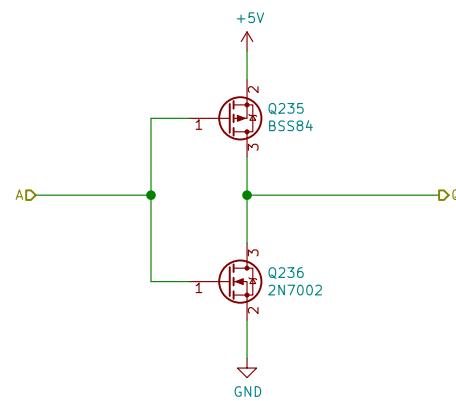
D

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

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File: Gate_NOT.sch

Title: Fets & Crosses Engine

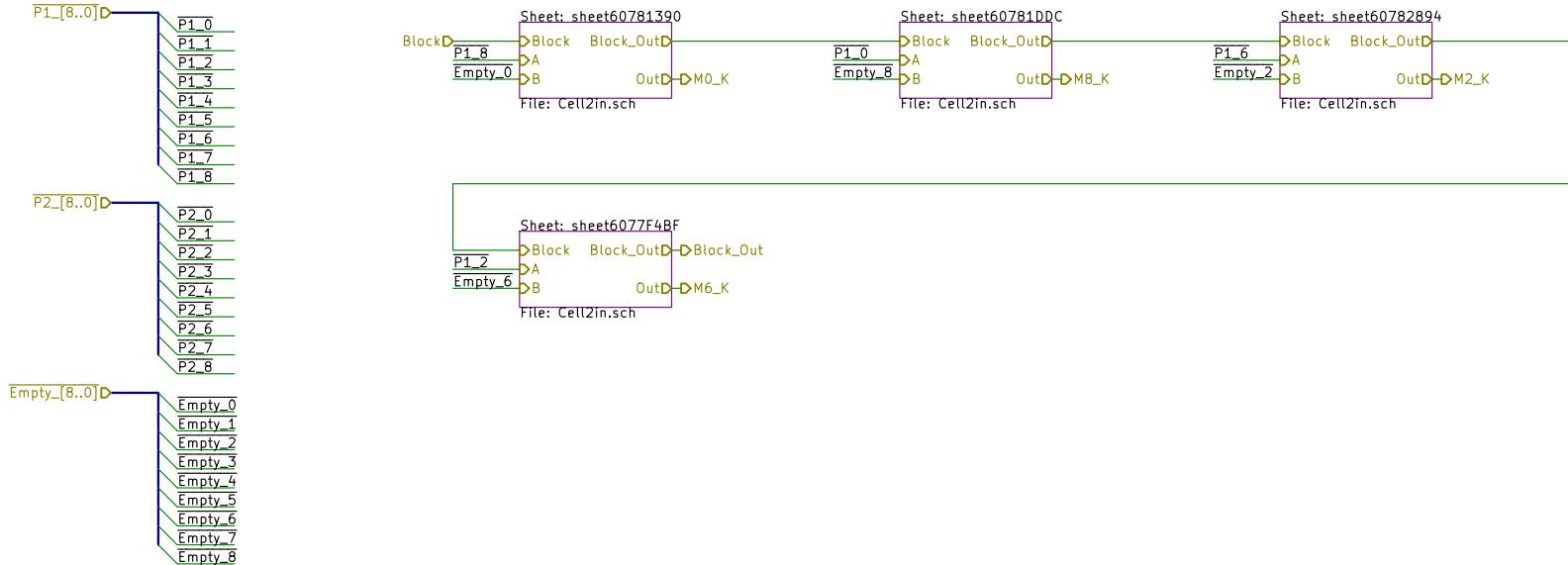
Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 76/398

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Philipp Schilk

Sheet: /sheet60779195/
 File: Engine_OPPOSITE_CORNERS.sch

Title: Fets & Crosses Engine

Size: A4	Date:
KiCad E.D.A. kicad (5.1.9)-1	Rev: v1.0

Id: 77/398	Rev: v1.0
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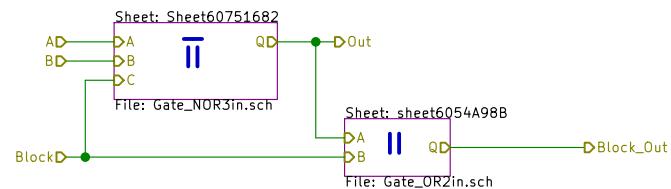
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**Philipp Schilk**Sheet: /sheet60779195/sheet6077F4BF/
File: Cell2in.sch**Title: Fets & Crosses Engine**Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 78/398

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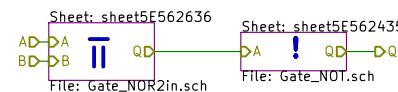
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet60779195/sheet6077F4BF/sheet6054A98B/

File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 79/398

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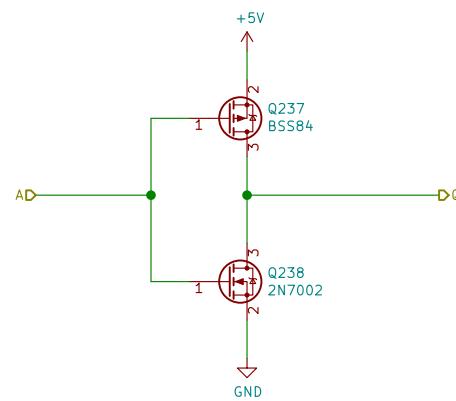
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet60779195/sheet6077F4BF/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 80/398

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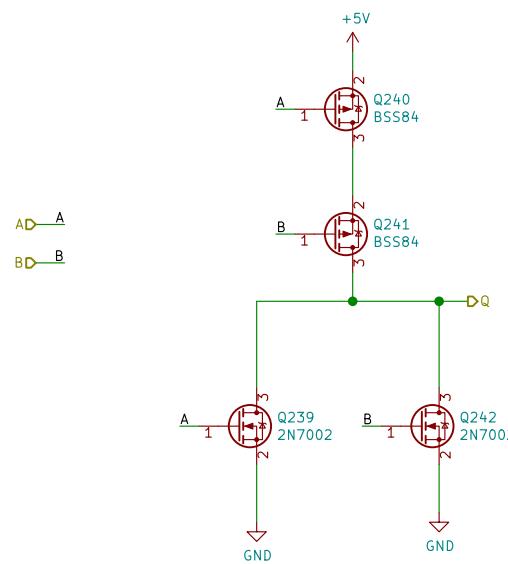
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet60779195/sheet6077F4BF/sheet6054A98B/sheet5E562636/

File: Gate_NOR2in.sch

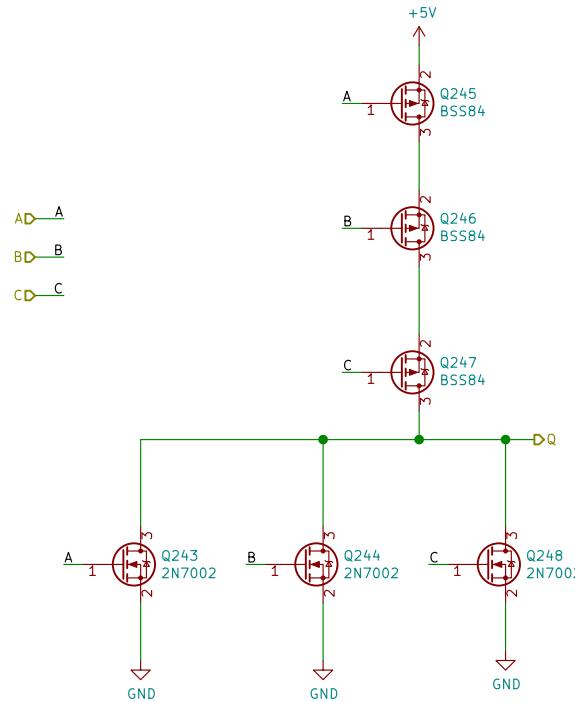
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Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 81/398



https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet60779195/sheet6077F4BF/Sheet60751682/

File: Gate_NOR3in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 82/398

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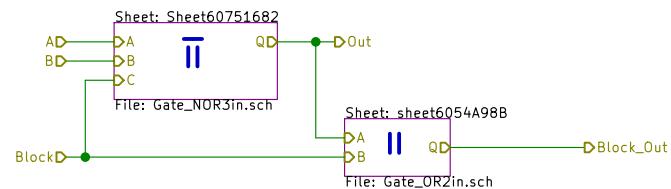
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**Philipp Schilk**Sheet: /sheet60779195/sheet60781390/
File: Cell2in.sch**Title: Fets & Crosses Engine**Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 83/398

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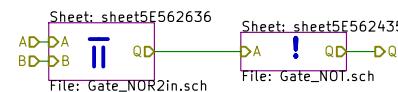
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet60779195/sheet60781390/sheet6054A98B/

File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 84/398

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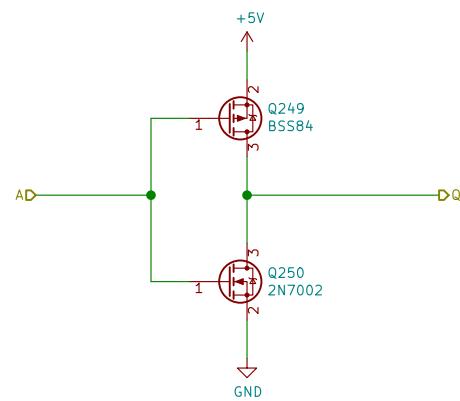
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet60779195/sheet60781390/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 85/398

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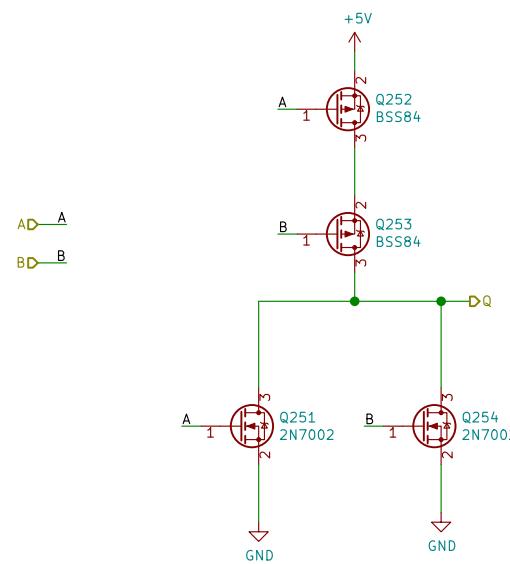
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

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File: Gate_NOR2in.sch

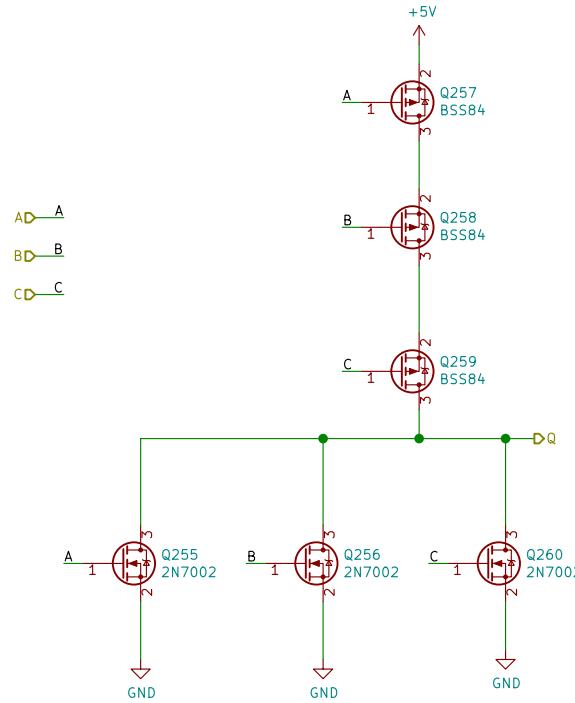
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Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 86/398



https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet60779195/sheet60781390/Sheet60751682/

File: Gate_NOR3in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 87/398

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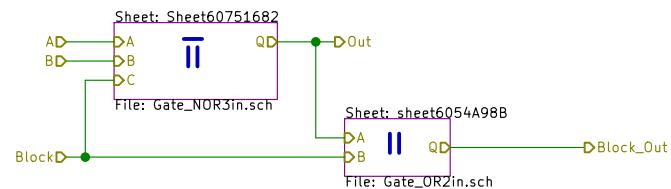
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**Philipp Schilk**Sheet: /sheet60779195/sheet60781DDC/
File: Cell2in.sch**Title: Fets & Crosses Engine**Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 88/398

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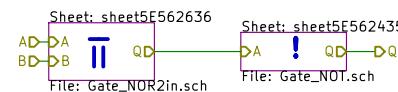
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet60779195/sheet60781DDC/sheet6054A98B/

File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 89/398

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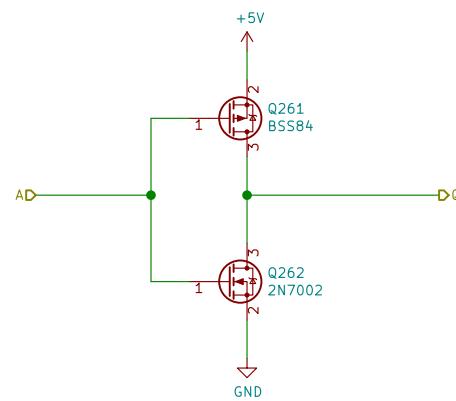
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet60779195/sheet60781DDC/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 90/398

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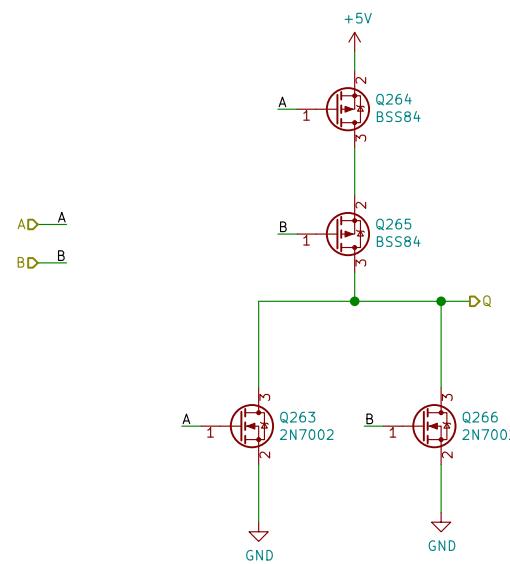
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

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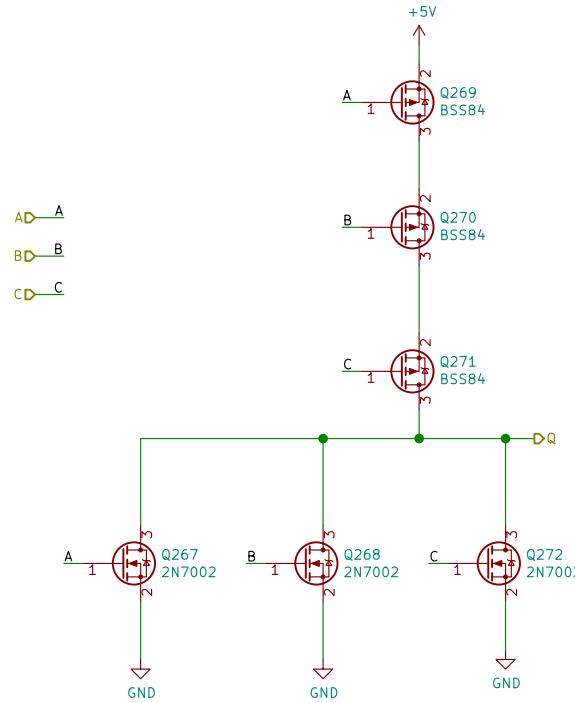
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Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 91/398



https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet60779195/sheet60781DDC/Sheet60751682/

File: Gate_NOR3in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 92/398

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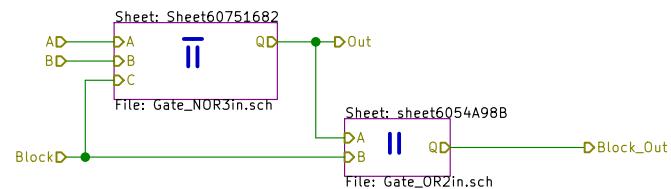
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File: Cell2in.sch**Title: Fets & Crosses Engine**Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 93/398

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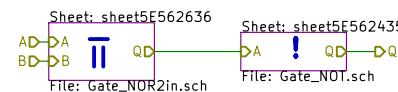
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet60779195/sheet60782894/sheet6054A98B/

File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 94/398

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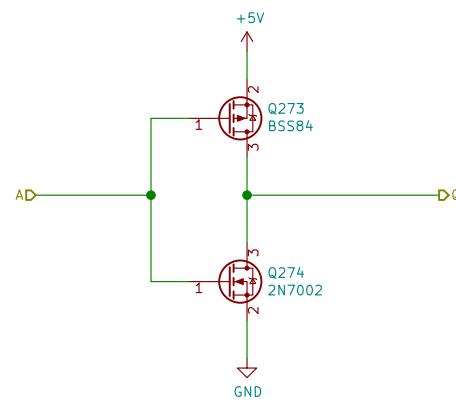
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet60779195/sheet60782894/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 95/398

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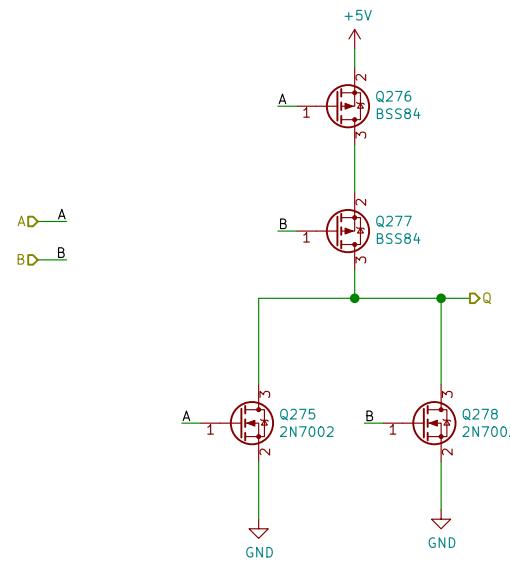
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet60779195/sheet60782894/sheet6054A98B/sheet5E562636/

File: Gate_NOR2in.sch

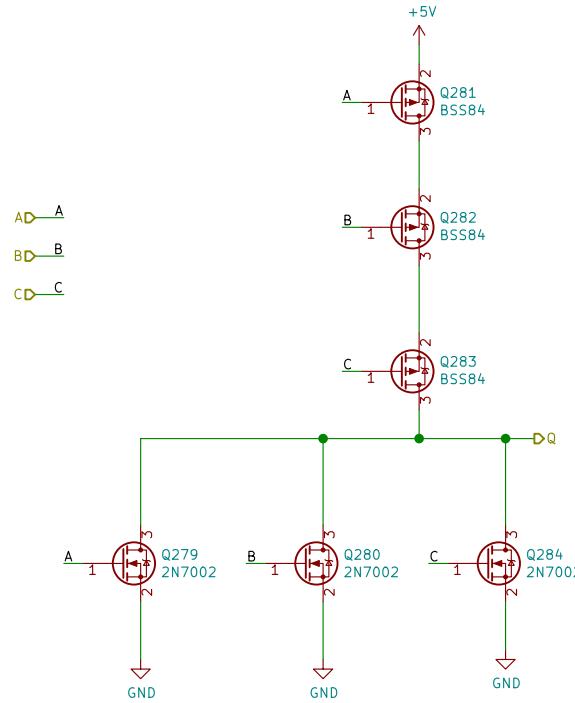
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Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 96/398



https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet60779195/sheet60782894/Sheet60751682/

File: Gate_NOR3in.sch

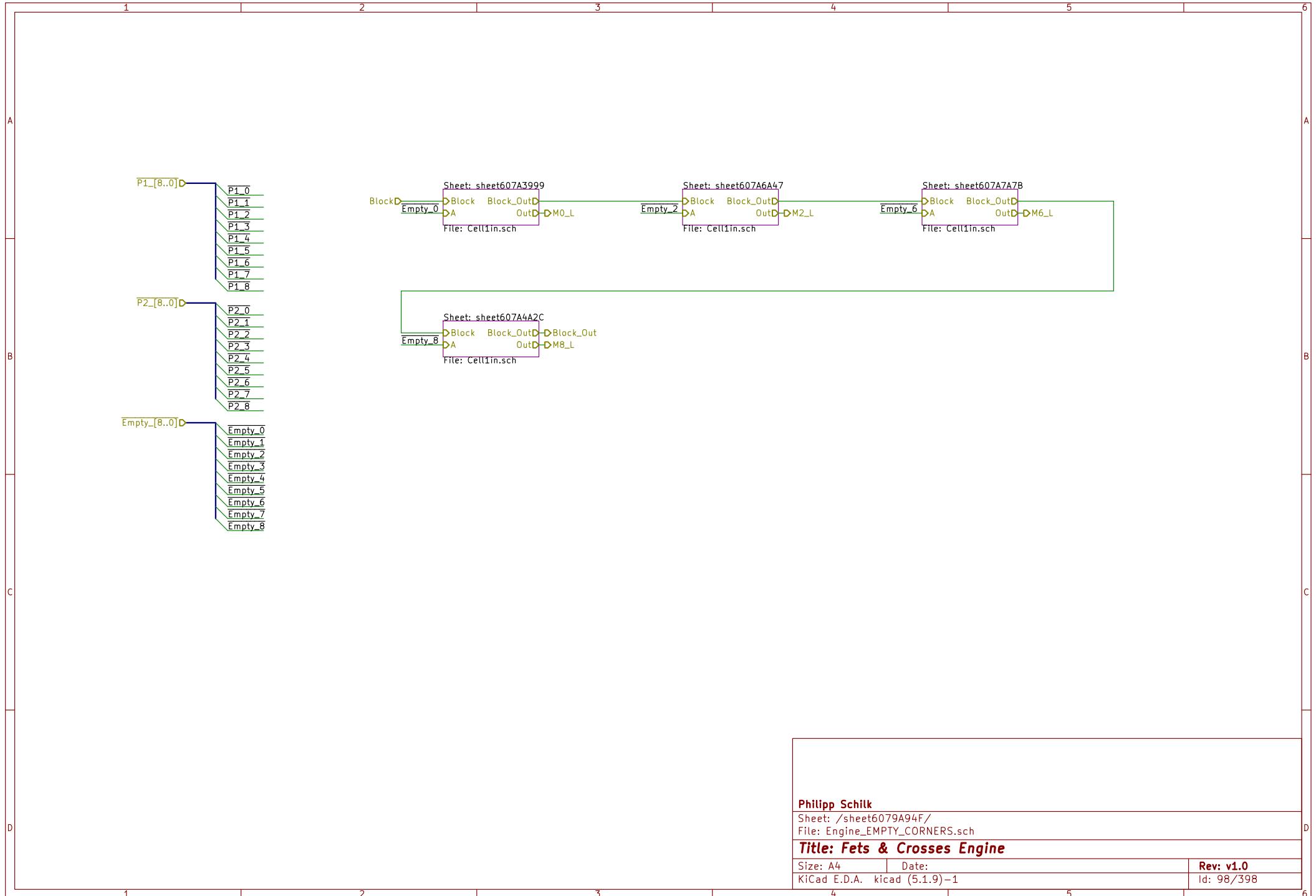
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Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 97/398



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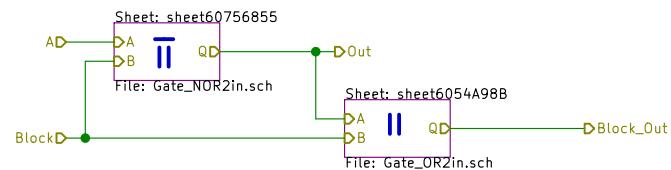
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**Philipp Schilk**Sheet: /sheet6079A94F/sheet607A3999/
File: Cell1in.sch**Title: Fets & Crosses Engine**Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 99/398

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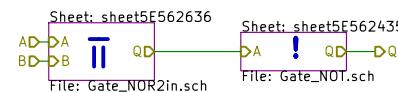
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic
Philipp Schilk
Sheet: /sheet6079A94F/sheet607A3999/sheet6054A98B/
File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 100/398

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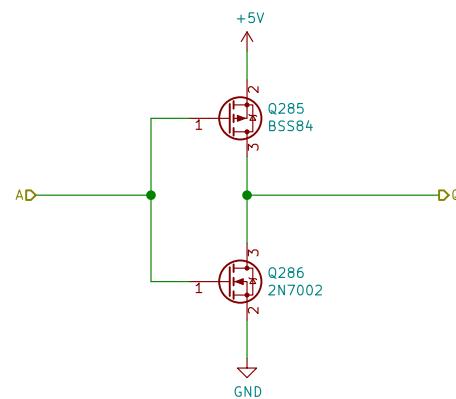
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet6079A94F/sheet607A3999/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 101/398

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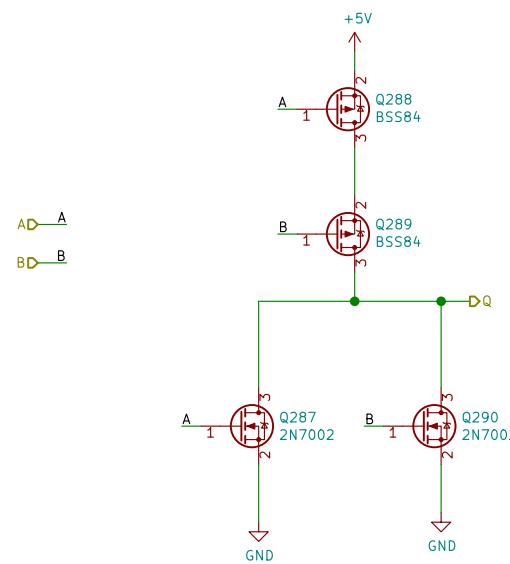
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet6079A94F/sheet607A3999/sheet6054A98B/sheet5E562636/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 102/398

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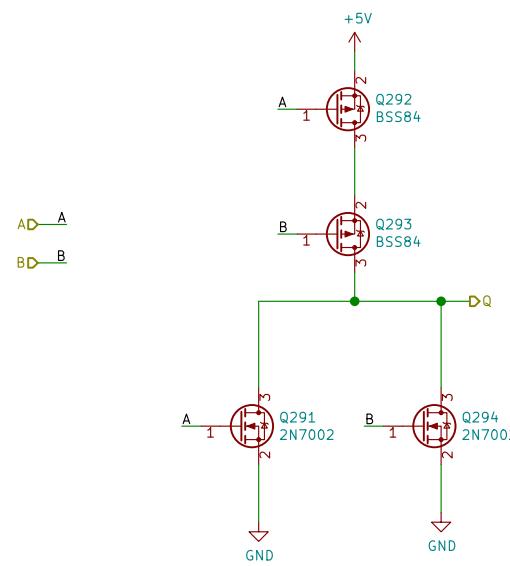
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet6079A94F/sheet607A3999/sheet60756855/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 103/398

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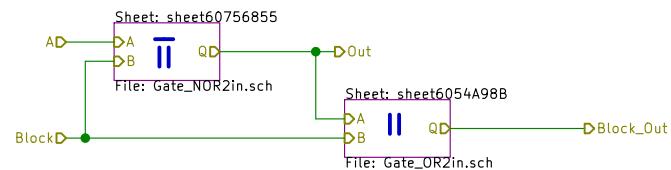
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**Philipp Schilk**Sheet: /sheet6079A94F/sheet607A6A47/
File: Cell1in.sch**Title: Fets & Crosses Engine**Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 104/398

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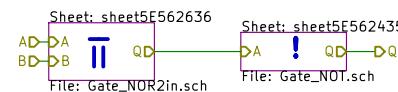
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet6079A94F/sheet607A6A47/sheet6054A98B/

File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 105/398

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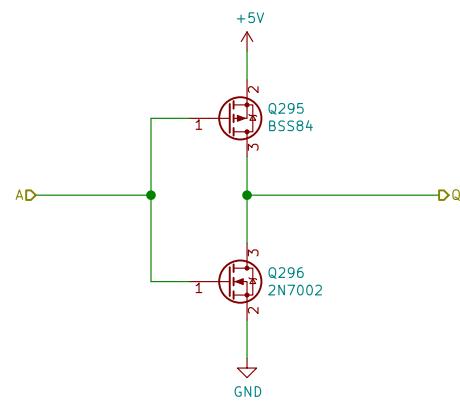
D

A

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet6079A94F/sheet607A6A47/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 106/398

A

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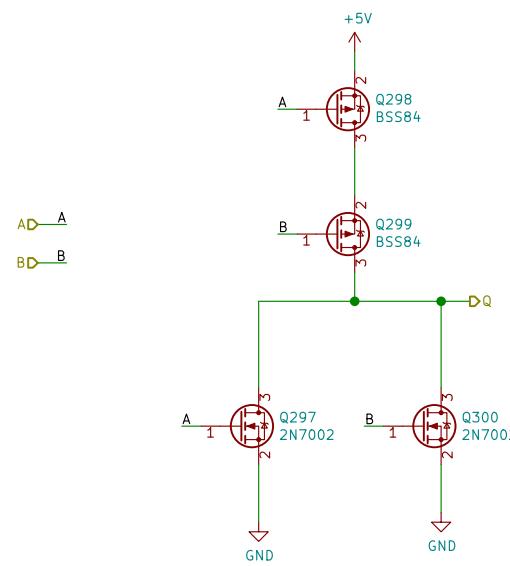
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet6079A94F/sheet607A6A47/sheet6054A98B/sheet5E562636/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 107/398

A

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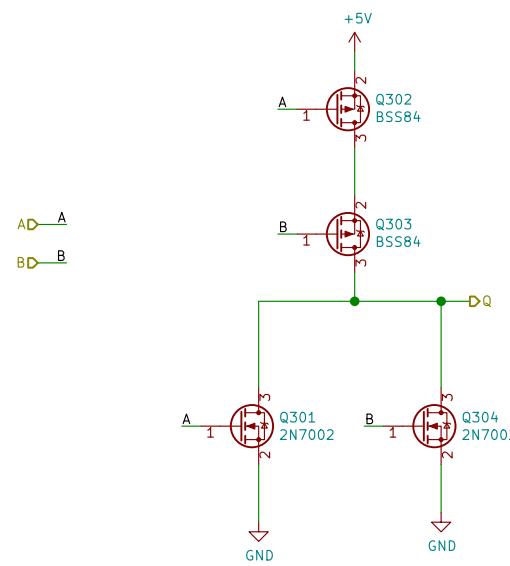
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet6079A94F/sheet607A6A47/sheet60756855/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 108/398

A

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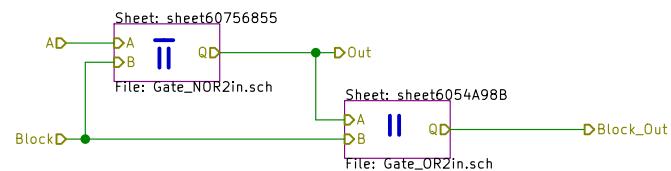
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**Philipp Schilk**Sheet: /sheet6079A94F/sheet607A7A7B/
File: Cell1in.sch**Title: Fets & Crosses Engine**Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 109/398

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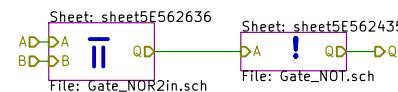
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet6079A94F/sheet607A7A7B/sheet6054A98B/

File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 110/398

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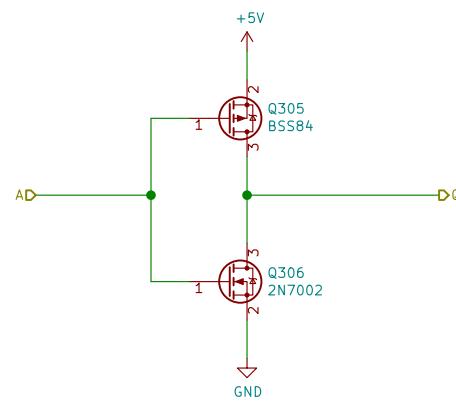
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet6079A94F/sheet607A7A7B/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 111/398

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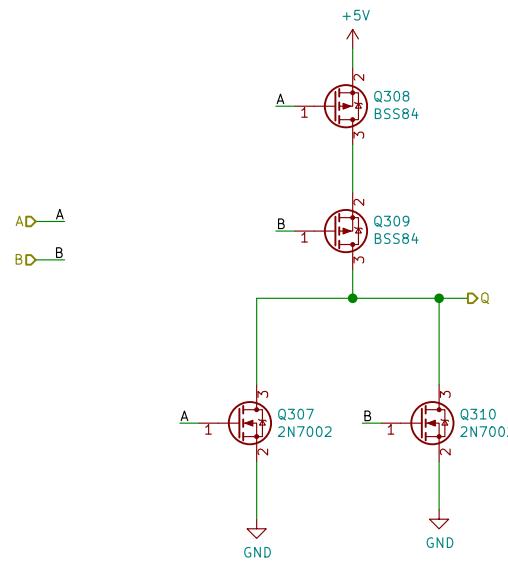
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet6079A94F/sheet607A7A7B/sheet6054A98B/sheet5E562636/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 112/398

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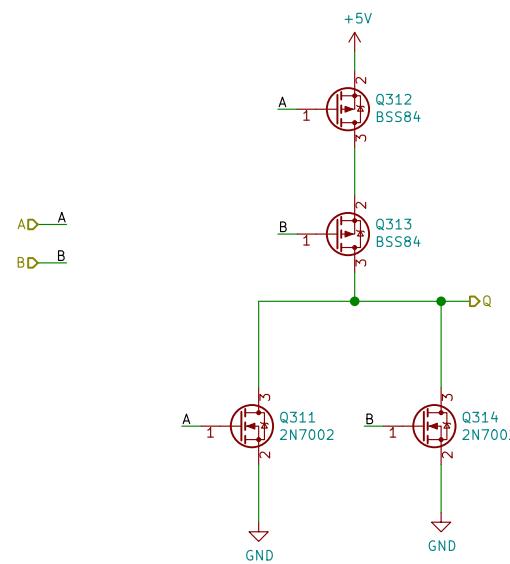
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet6079A94F/sheet607A7A7B/sheet60756855/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 113/398

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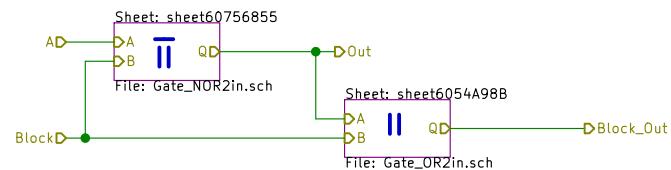
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File: Cell1in.sch**Title: Fets & Crosses Engine**Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 114/398

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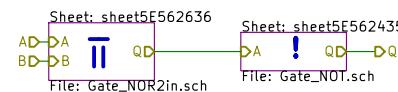
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic
Philipp Schilk
Sheet: /sheet6079A94F/sheet607A4A2C/sheet6054A98B/
File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 115/398

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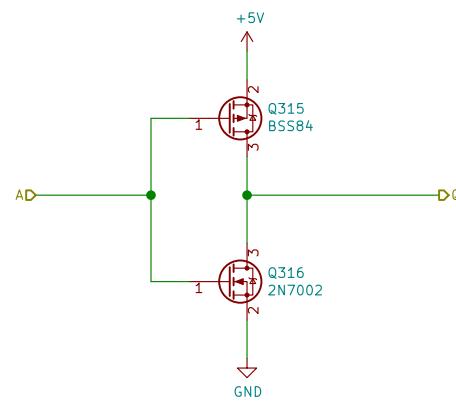
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet6079A94F/sheet607A4A2C/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 116/398

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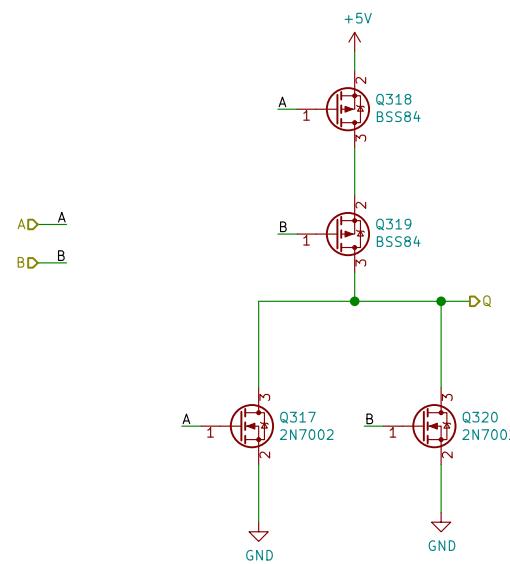
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet6079A94F/sheet607A4A2C/sheet6054A98B/sheet5E562636/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 117/398

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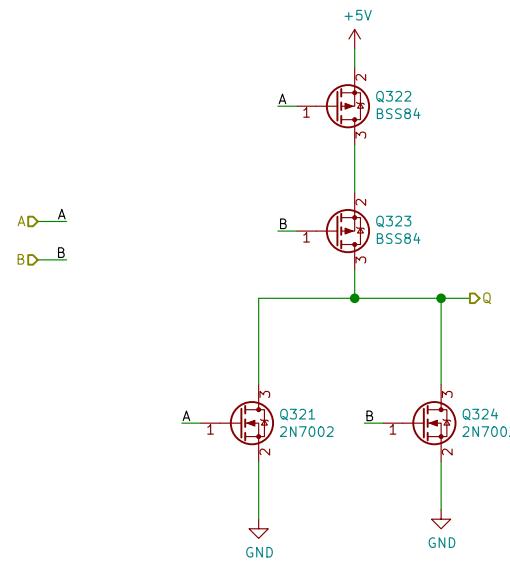
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet6079A94F/sheet607A4A2C/sheet60756855/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

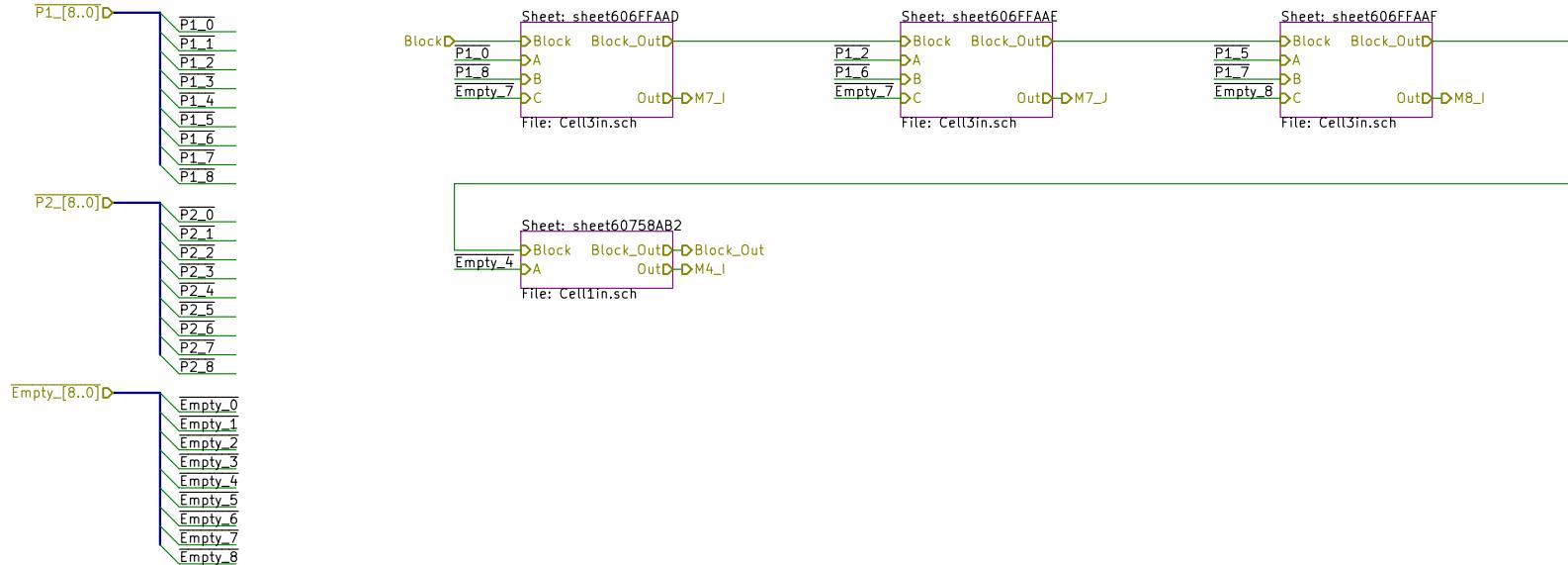
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KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 118/398

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Philipp Schilk

Sheet: /sheet6073F2C8/
File: Engine_FORKS_CENTER.sch

Title: Fets & Crosses Engine

Size: A4	Date:
KiCad E.D.A. kicad (5.1.9)-1	

Rev: v1.0
Id: 119/398

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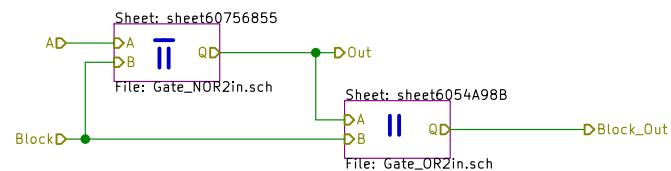
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**Philipp Schilk**Sheet: /sheet6073F2C8/sheet60758AB2/
File: Cell1in.sch**Title: Fets & Crosses Engine**Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 120/398

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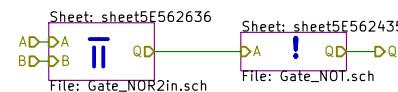
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet6073F2C8/sheet60758AB2/sheet6054A98B/

File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 121/398

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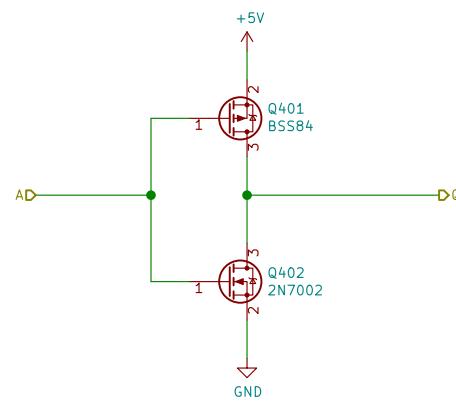
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet6073F2C8/sheet60758AB2/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 122/398

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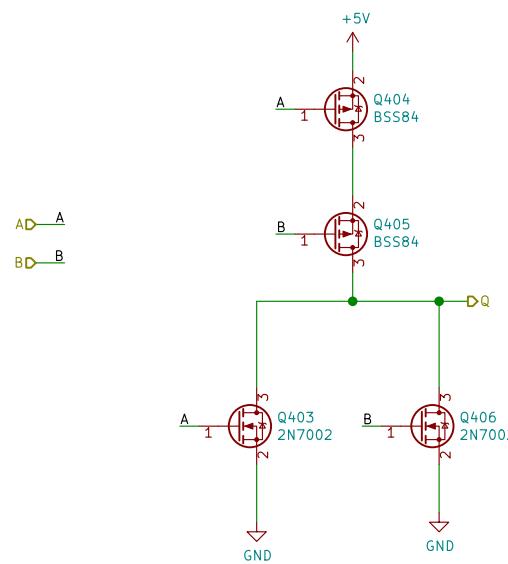
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet6073F2C8/sheet60758AB2/sheet6054A98B/sheet5E562636/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 123/398

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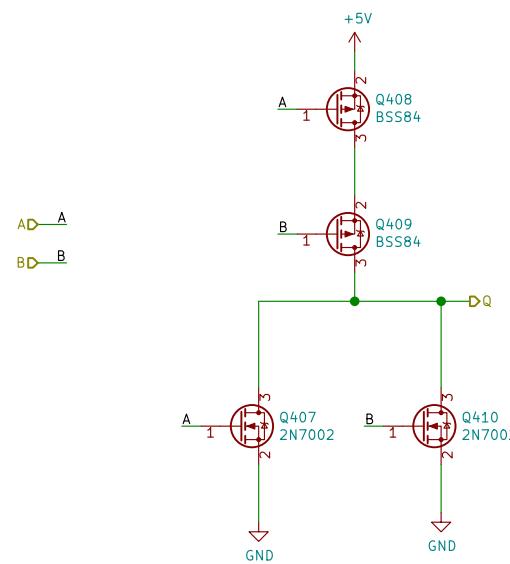
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet6073F2C8/sheet60758AB2/sheet60756855/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 124/398

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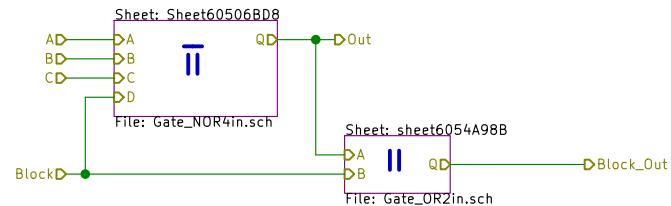
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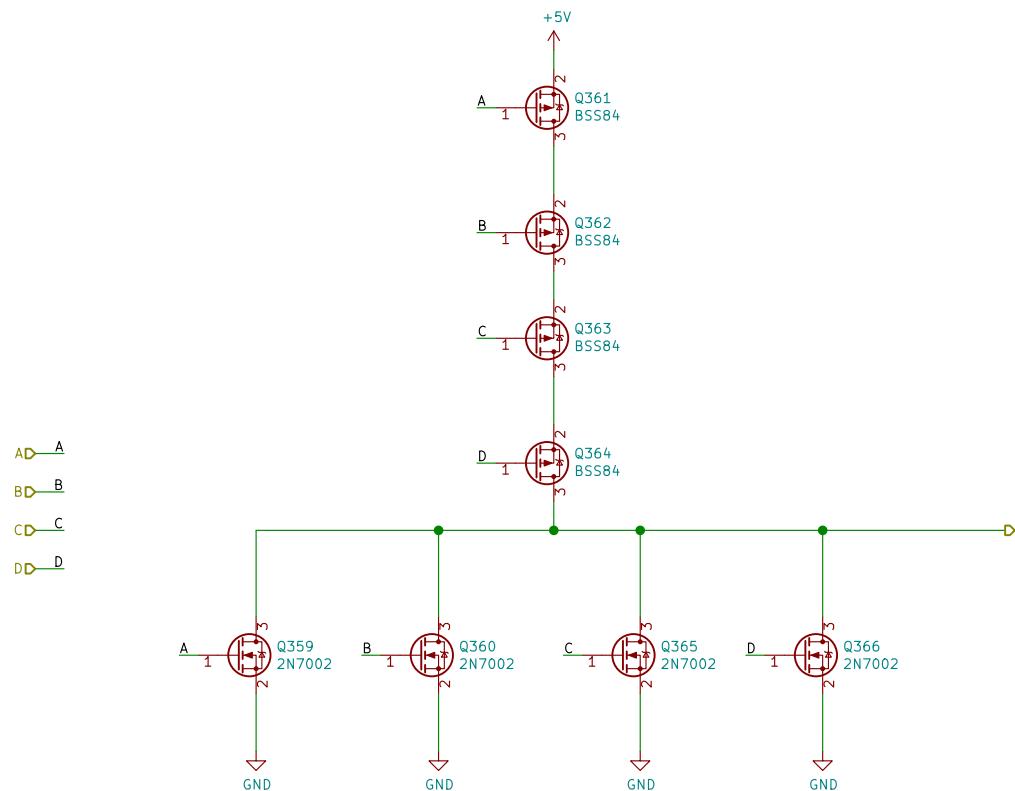
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KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 125/398



Philipp Schilk

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Title: Fets & Crosses Engine

Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 126/398

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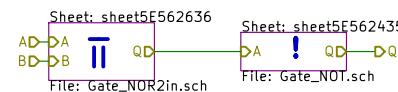
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet6073F2C8/sheet606FFAAD/sheet6054A98B/

File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 127/398

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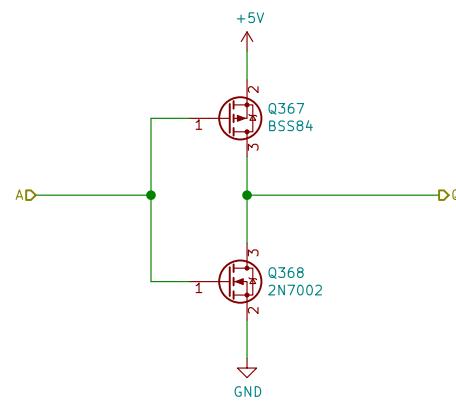
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet6073F2C8/sheet606FFAAD/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 128/398

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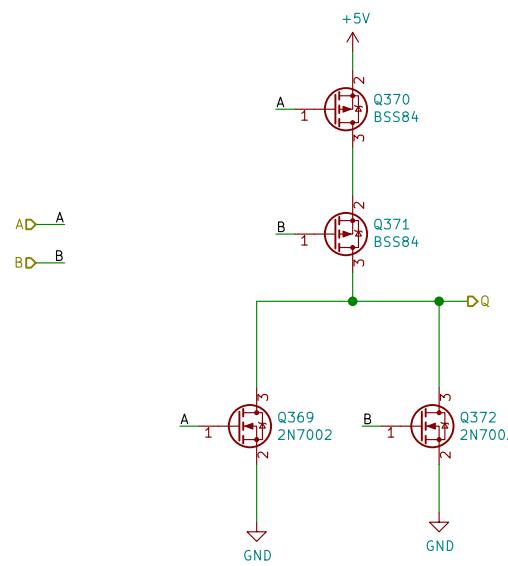
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet6073F2C8/sheet606FFAAD/sheet6054A98B/sheet5E562636/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 129/398

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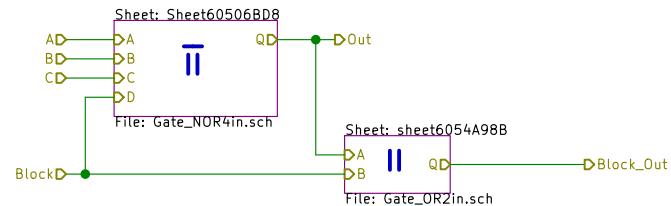
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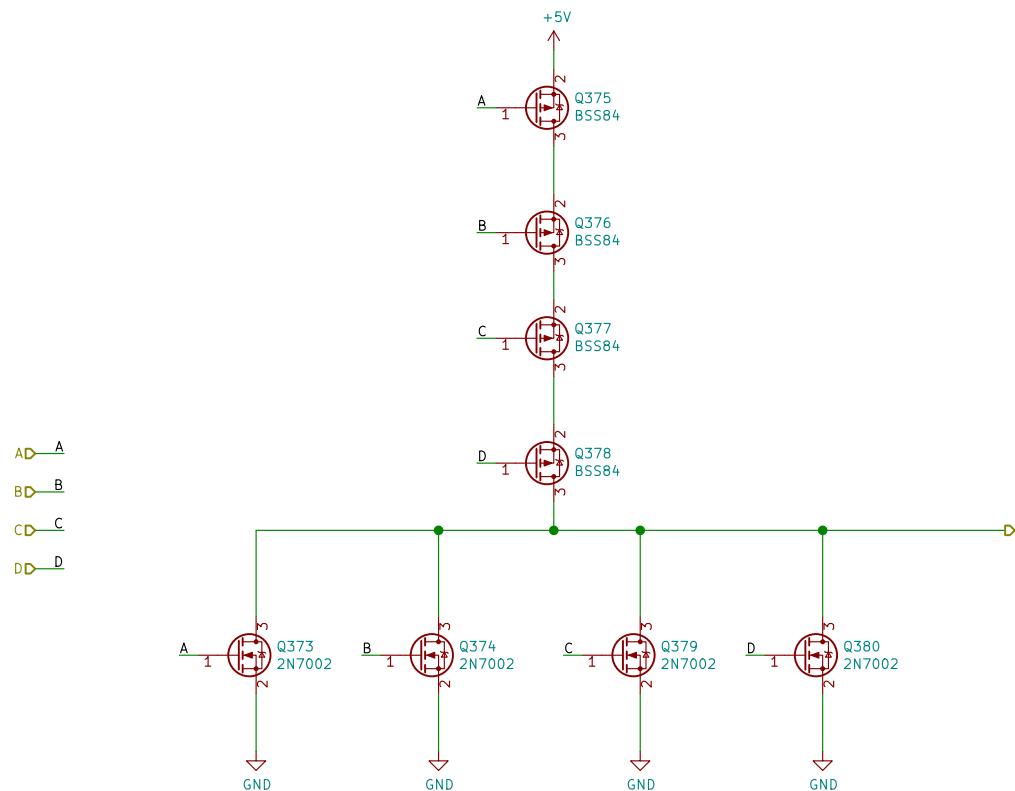
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File: Cell3in.sch**Title: Fets & Crosses Engine**Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 130/398



Philipp Schilk

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File: Gate_NOR4in.sch

Title: Fets & Crosses Engine

Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 131/398

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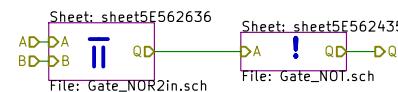
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic
Philipp Schilk
Sheet: /sheet6073F2C8/sheet606FFAAE/sheet6054A98B/
File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 132/398

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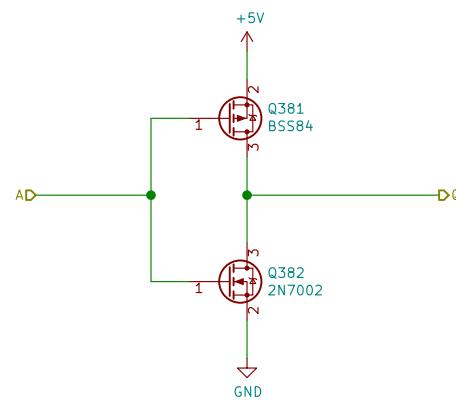
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet6073F2C8/sheet606FFAAE/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 133/398

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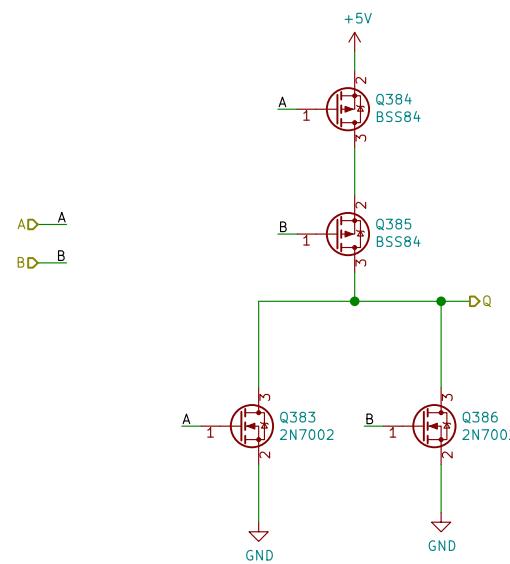
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet6073F2C8/sheet606FFAAE/sheet6054A98B/sheet5E562636/

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Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 134/398

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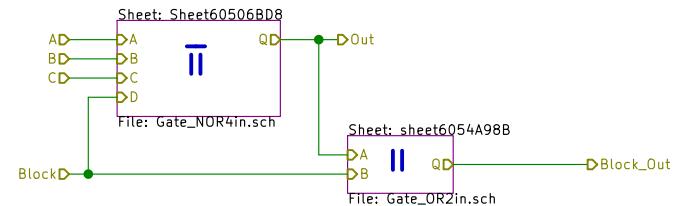
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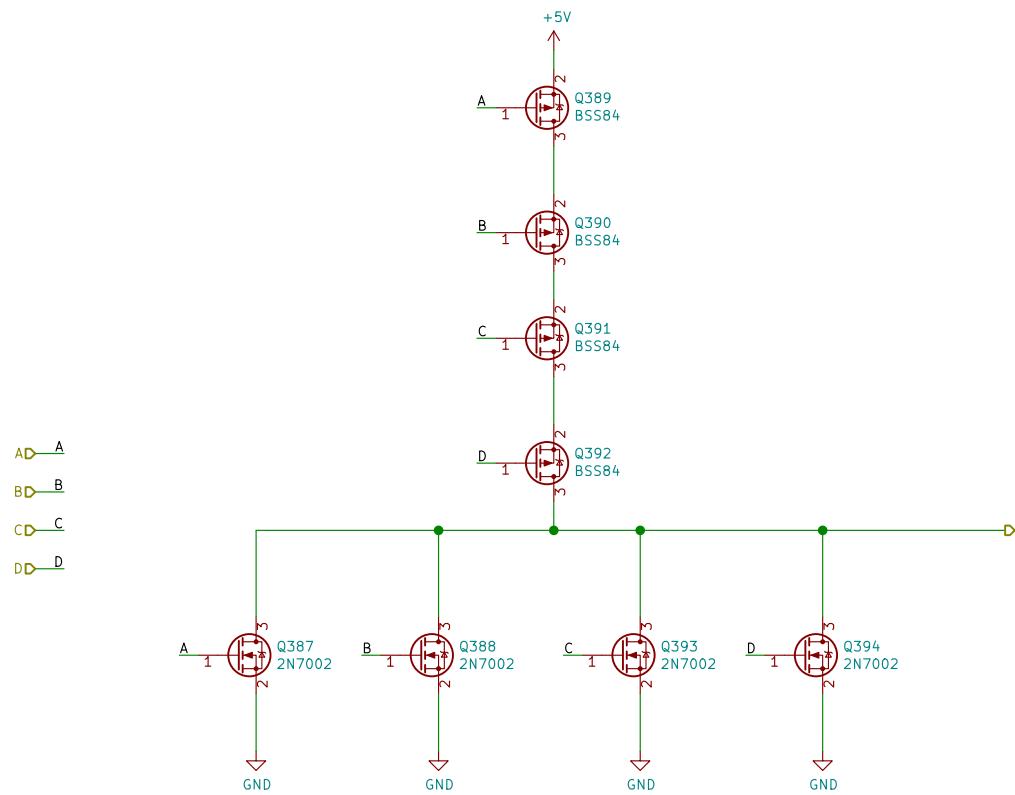
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KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 135/398



Philipp Schilk

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Title: Fets & Crosses Engine

Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 136/398

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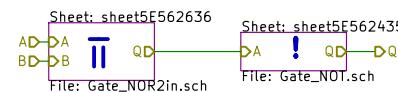
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet6073F2C8/sheet606FFAAF/sheet6054A98B/

File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 137/398

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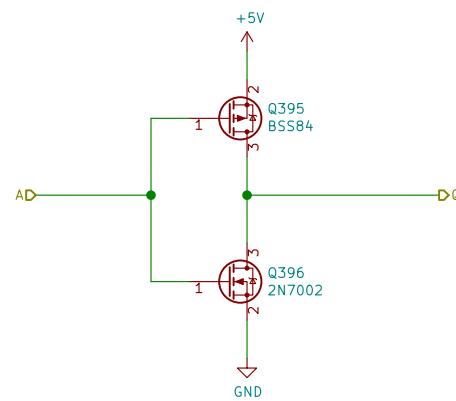
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet6073F2C8/sheet606FFAAF/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 138/398

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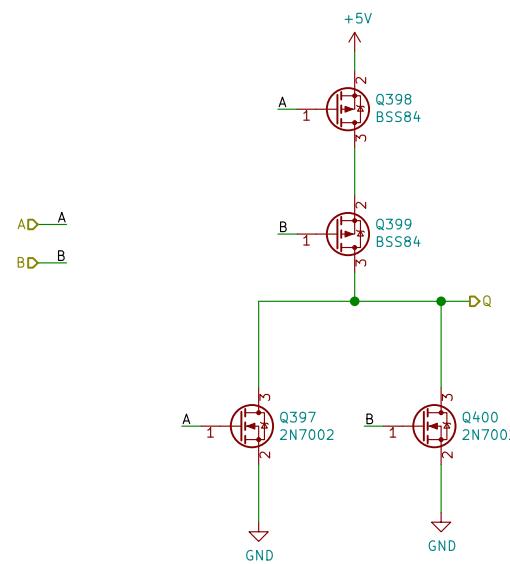
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet6073F2C8/sheet606FFAAF/sheet6054A98B/sheet5E562636/

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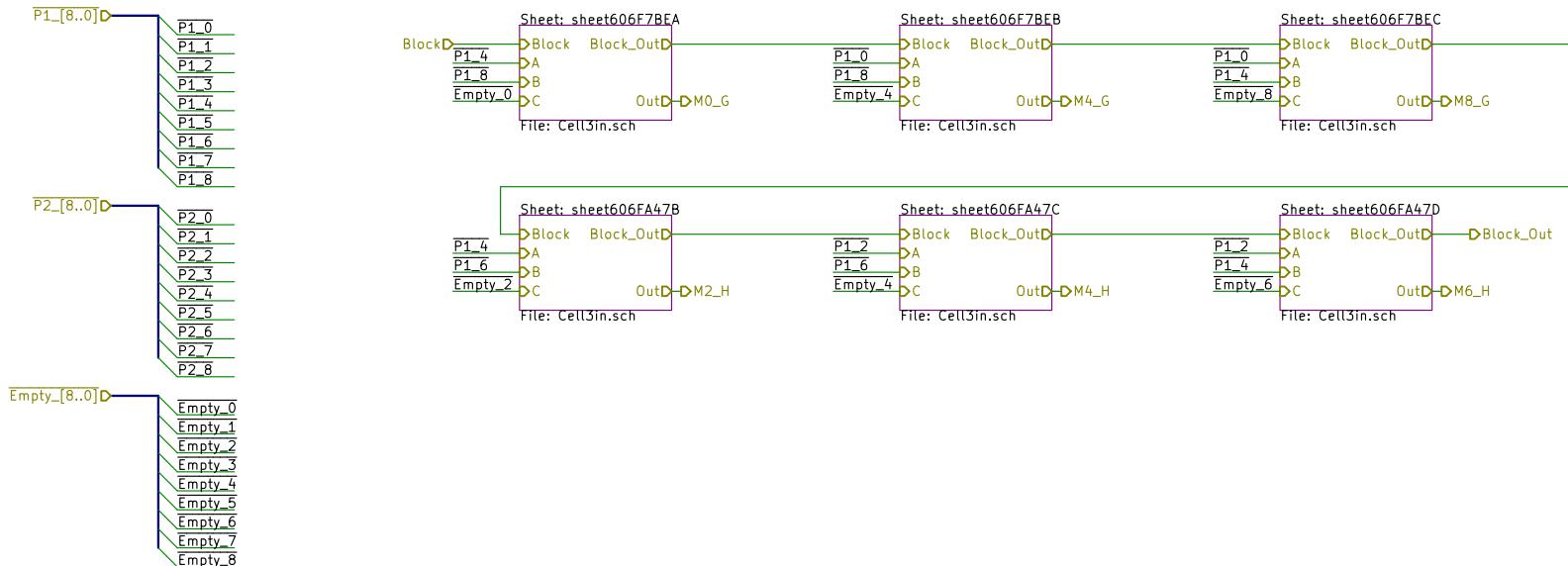
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KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 139/398

A



B

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A

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C

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Philipp Schilk

Sheet: /sheet606933A1/
 File: Engine_BLOCK_DIAG.sch

Title: Fets & Crosses Engine

Size: A4	Date:
KiCad E.D.A.	kicad (5.1.9)-1

Rev: v1.0
Id: 140/398

A

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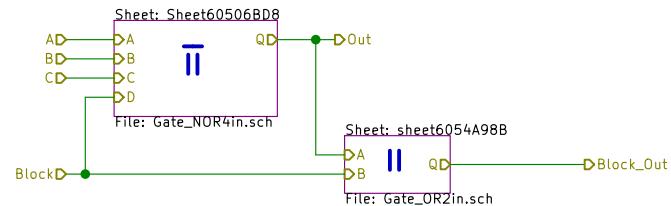
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**Philipp Schilk**Sheet: /sheet606933A1/sheet606F7BEA/
File: Cell3in.sch**Title: Fets & Crosses Engine**Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 141/398

1 2 3 4 5 6

A

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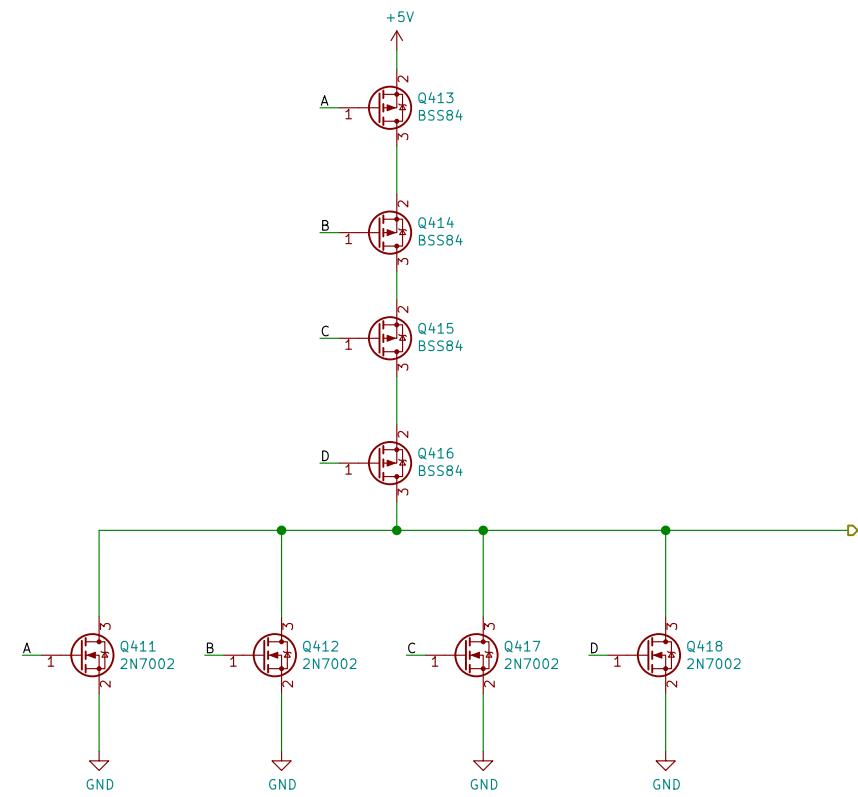
C

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AD—A
BD—B
CD—C
DD—D



Philipp Schilk

Sheet: /sheet606933A1/sheet606F7BEA/Sheet60506BD8/
File: Gate_NOR4in.sch

Title: Fets & Crosses Engine

Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 142/398

1 2 3 4 5 6

A

A

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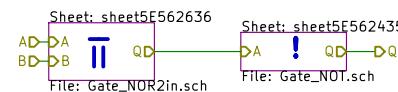
B

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet606933A1/sheet606F7BEA/sheet6054A98B/

File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 143/398

A

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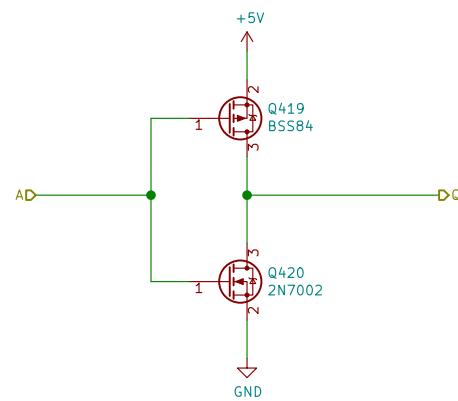
D

A

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet606933A1/sheet606F7BEA/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 144/398

A

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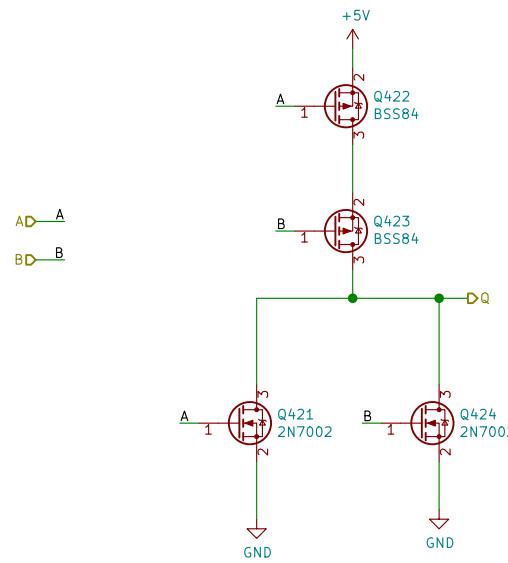
B

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet606933A1/sheet606F7BEA/sheet6054A98B/sheet5E562636/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 145/398

A

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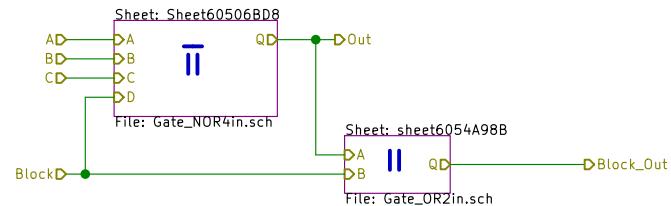
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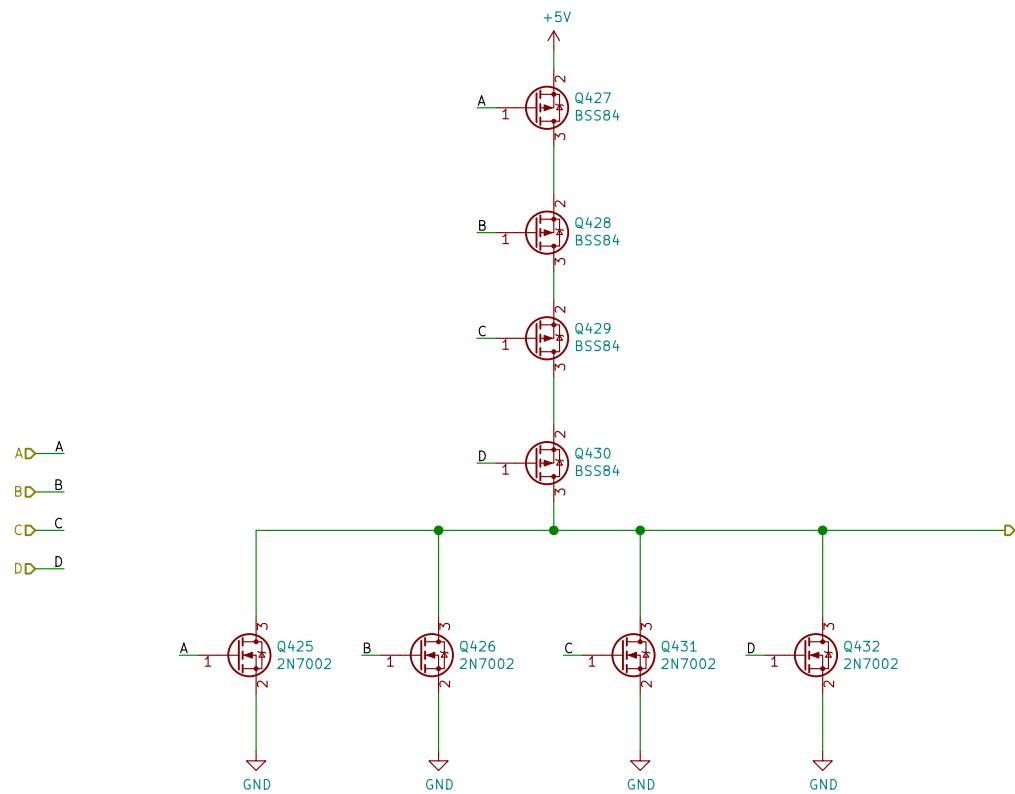
C

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**Philipp Schilk**Sheet: /sheet606933A1/sheet606F7BEB/
File: Cell3in.sch**Title: Fets & Crosses Engine**Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 146/398



Philipp Schilk

Sheet: /sheet606933A1/sheet606F7BEB/Sheet60506BD8/
File: Gate_NOR4in.sch

Title: Fets & Crosses Engine

Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 147/398

A

A

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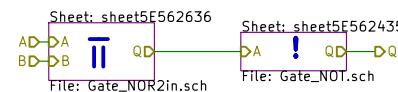
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic
Philipp Schilk
Sheet: /sheet606933A1/sheet606F7BEB/sheet6054A98B/
File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 148/398

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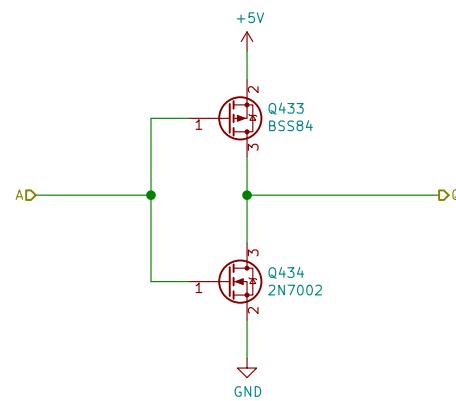
D

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet606933A1/sheet606F7BEB/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 149/398

A

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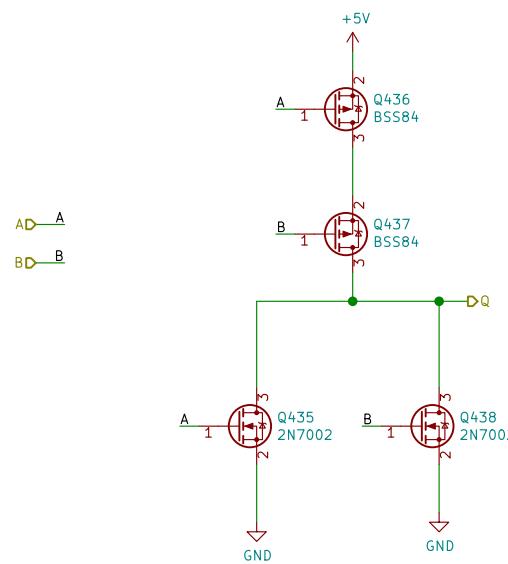
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet606933A1/sheet606F7BEB/sheet6054A98B/sheet5E562636/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 150/398

A

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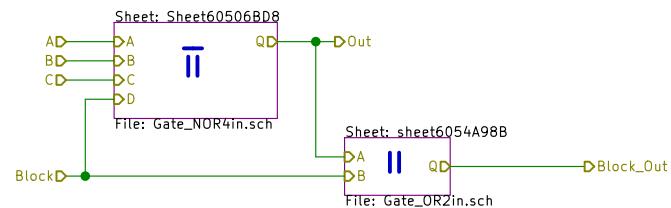
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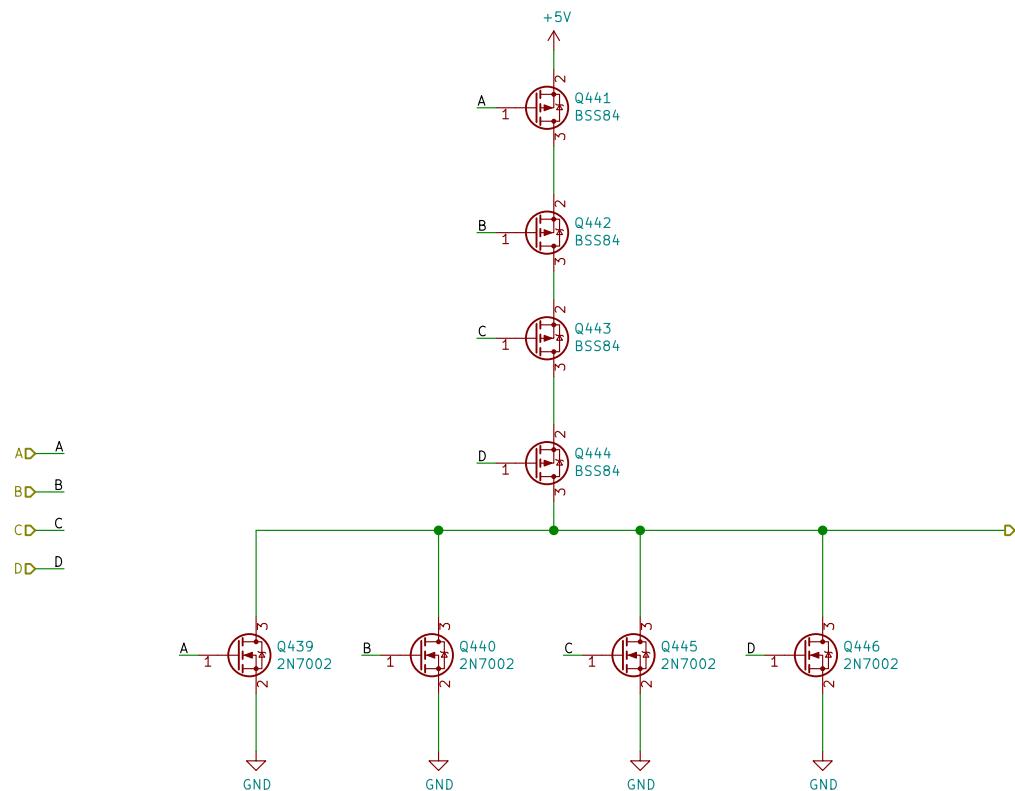
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**Philipp Schilk**Sheet: /sheet606933A1/sheet606F7BEC/
File: Cell3in.sch**Title: Fets & Crosses Engine**Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 151/398



Philipp Schilk

Sheet: /sheet606933A1/sheet606F7BEC/Sheet60506BD8/
File: Gate_NOR4in.sch

Title: Fets & Crosses Engine

Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 152/398

A

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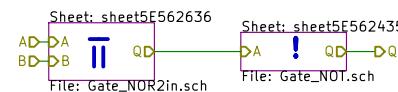
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet606933A1/sheet606F7BEC/sheet6054A98B/

File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 153/398

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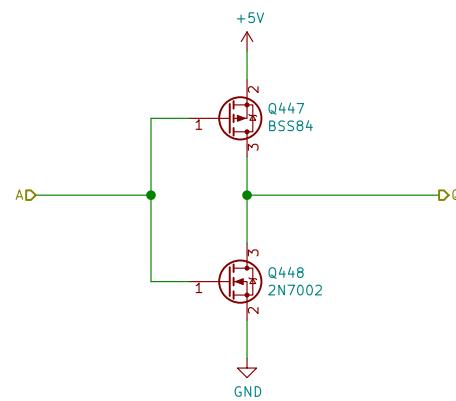
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A

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet606933A1/sheet606F7BEC/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 154/398

A

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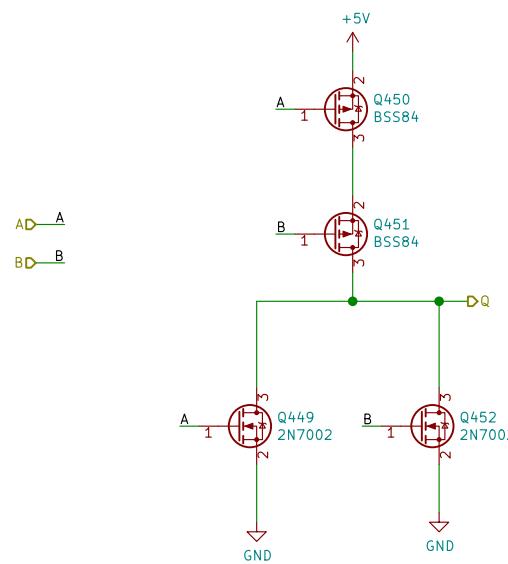
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet606933A1/sheet606F7BEC/sheet6054A98B/sheet5E562636/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 155/398

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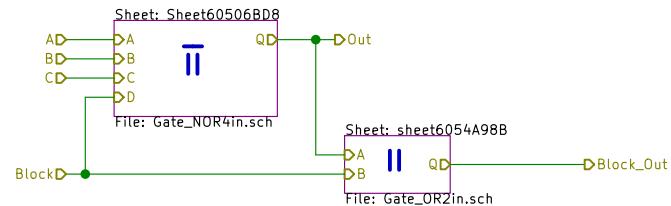
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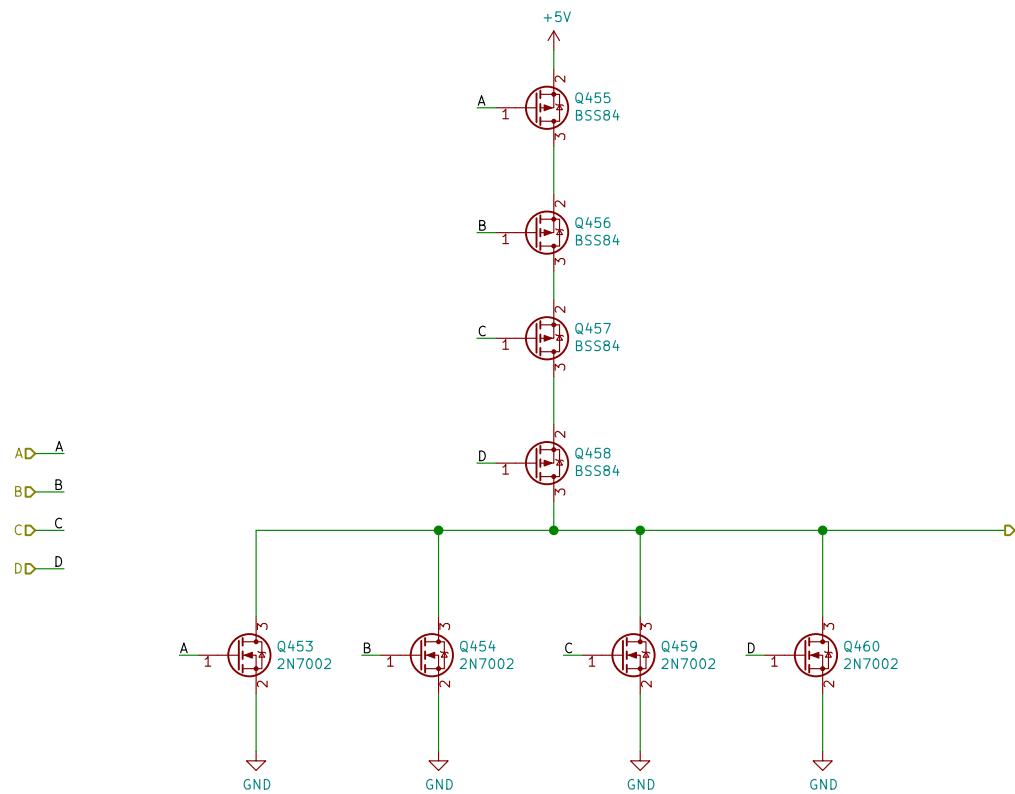
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**Philipp Schilk**Sheet: /sheet606933A1/sheet606FA47B/
File: Cell3in.sch**Title: Fets & Crosses Engine**Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 156/398



Philipp Schilk

Sheet: /sheet606933A1/sheet606FA47B/Sheet60506BD8/
File: Gate_NOR4in.sch

Title: Fets & Crosses Engine

Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 157/398

A

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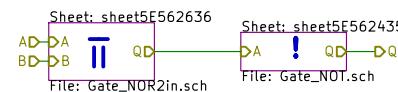
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet606933A1/sheet606FA47B/sheet6054A98B/

File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 158/398

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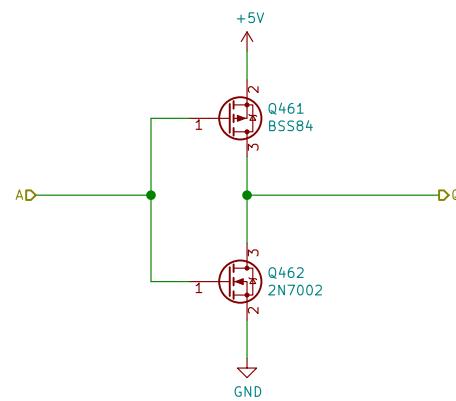
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet606933A1/sheet606FA47B/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 159/398

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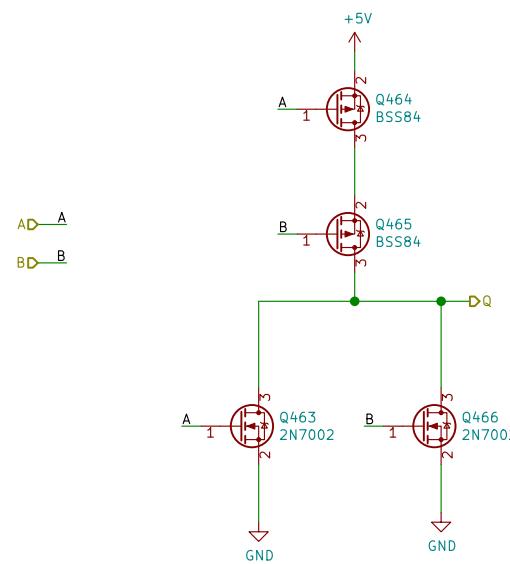
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet606933A1/sheet606FA47B/sheet6054A98B/sheet5E562636/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 160/398

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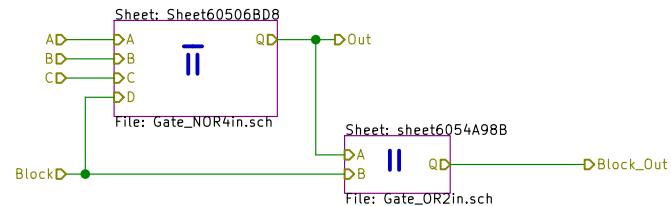
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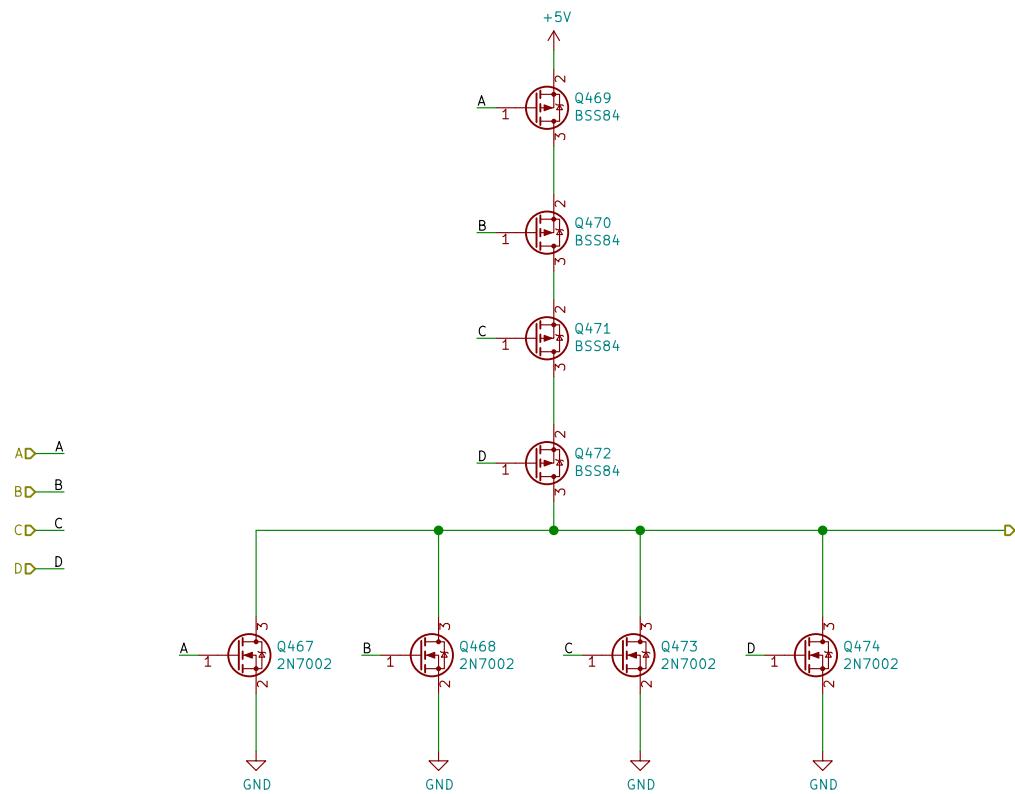
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**Philipp Schilk**Sheet: /sheet606933A1/sheet606FA47C/
File: Cell3in.sch**Title: Fets & Crosses Engine**Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 161/398



Philipp Schilk

Sheet: /sheet606933A1/sheet606FA47C/Sheet60506BD8/
File: Gate_NOR4in.sch

Title: Fets & Crosses Engine

Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 162/398

A

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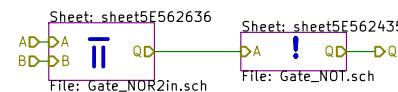
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet606933A1/sheet606FA47C/sheet6054A98B/

File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 163/398

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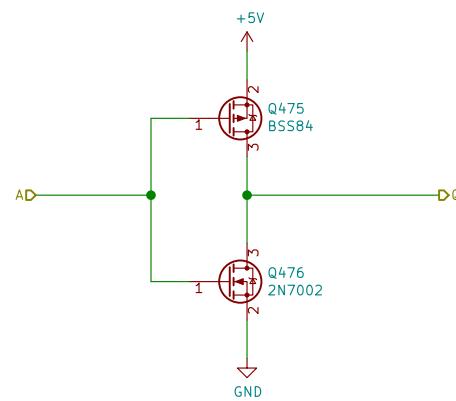
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet606933A1/sheet606FA47C/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 164/398

A

A

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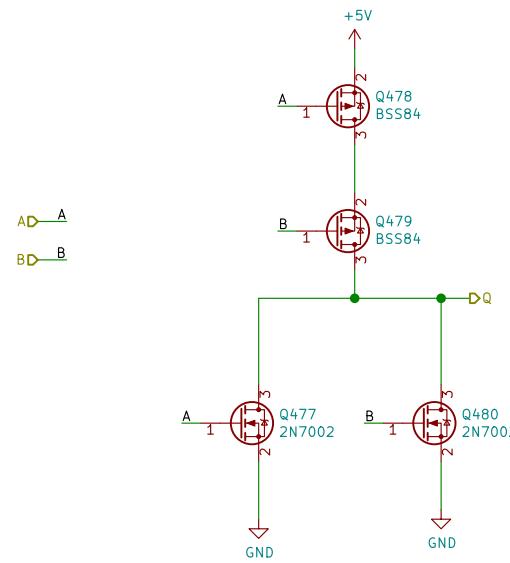
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Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet606933A1/sheet606FA47C/sheet6054A98B/sheet5E562636/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 165/398

A

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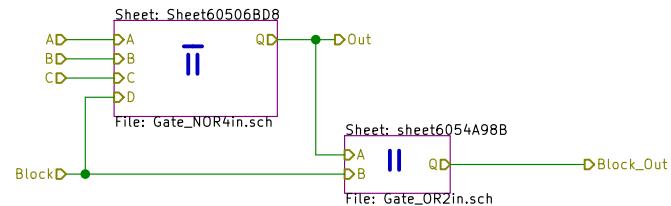
B

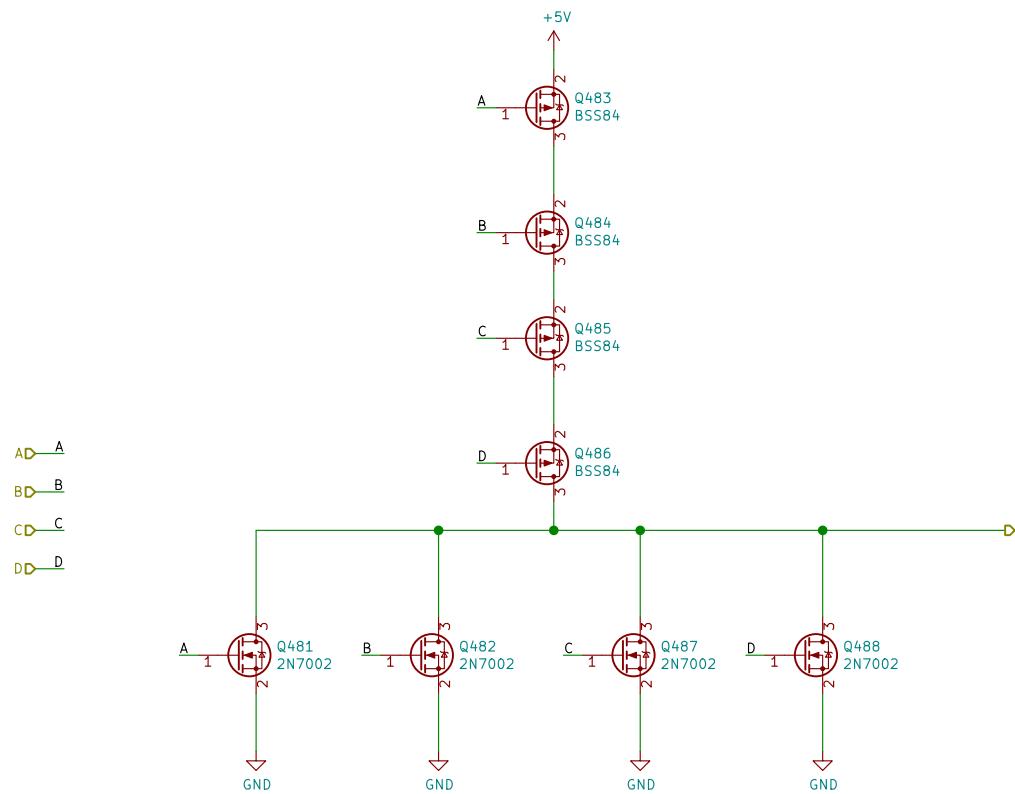
C

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**Philipp Schilk**Sheet: /sheet606933A1/sheet606FA47D/
File: Cell3in.sch**Title: Fets & Crosses Engine**Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 166/398



Philipp Schilk

Sheet: /sheet606933A1/sheet606FA47D/Sheet60506BD8/
File: Gate_NOR4in.sch

Title: Fets & Crosses Engine

Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 167/398

A

A

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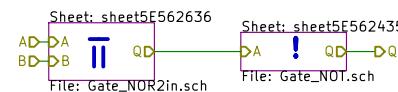
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet606933A1/sheet606FA47D/sheet6054A98B/

File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 168/398

A

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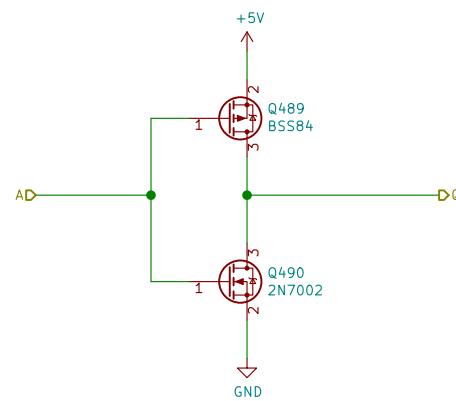
D

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet606933A1/sheet606FA47D/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 169/398

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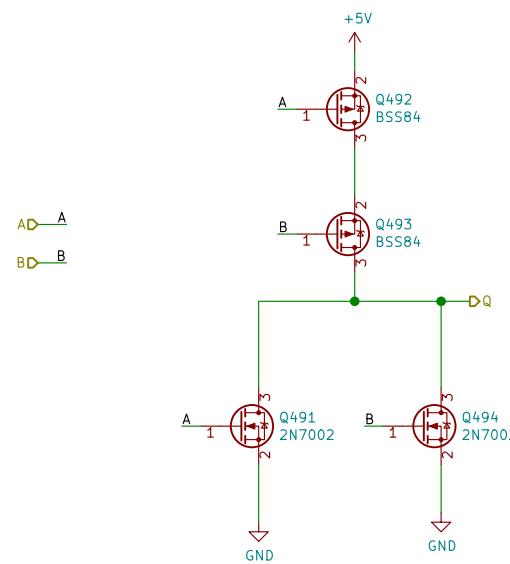
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet606933A1/sheet606FA47D/sheet6054A98B/sheet5E562636/

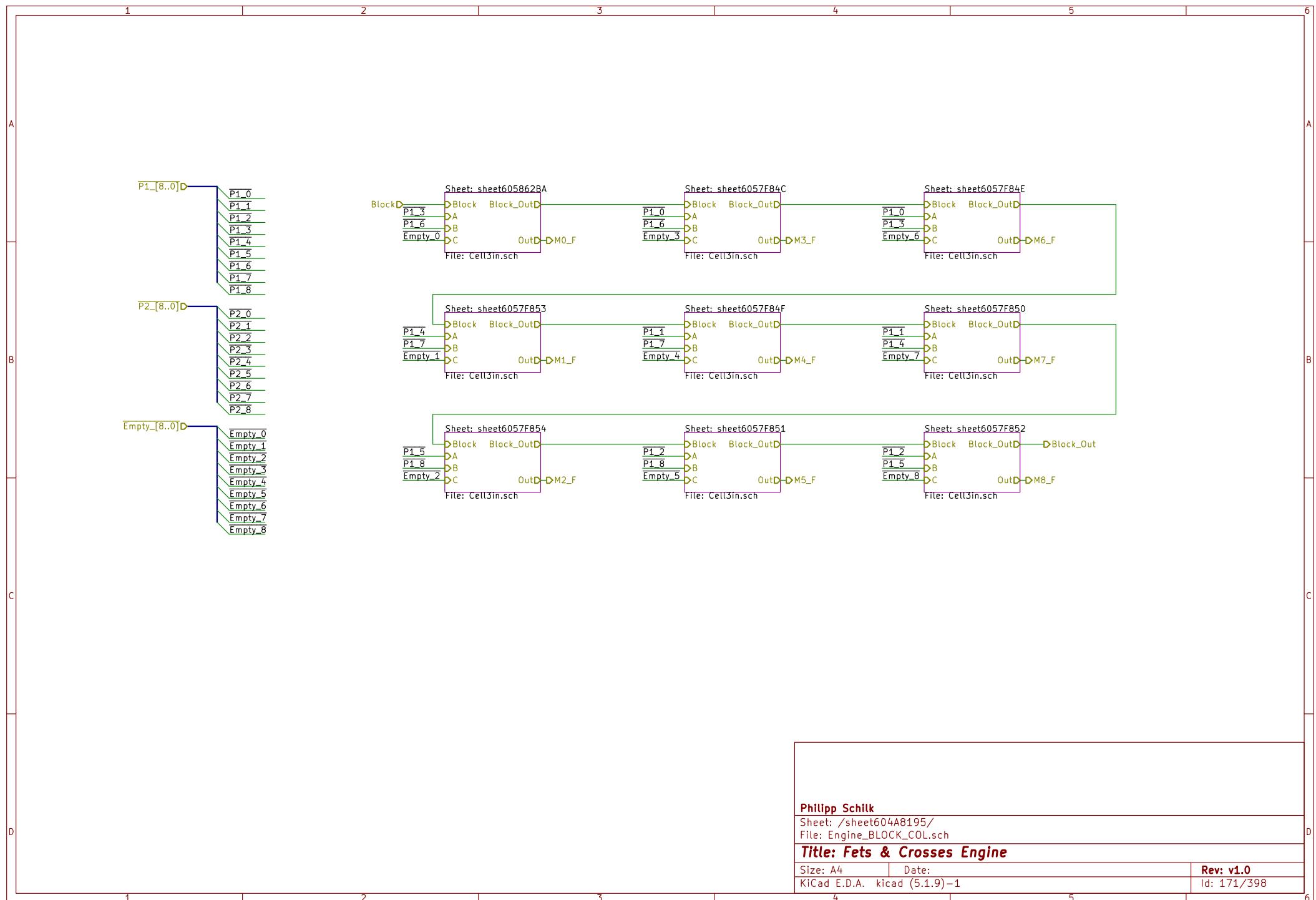
File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 170/398



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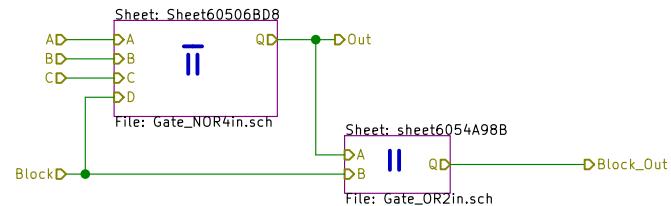
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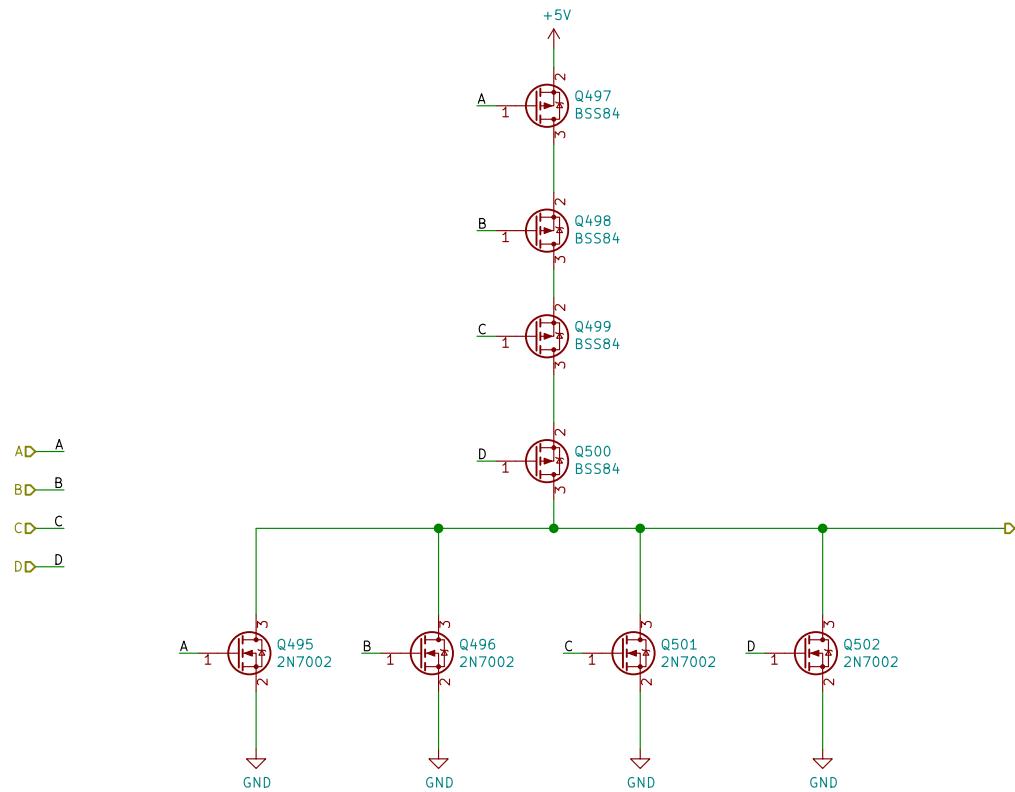
C

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**Philipp Schilk**Sheet: /sheet604A8195/sheet6057F84C/
File: Cell3in.sch**Title: Fets & Crosses Engine**Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 172/398



Philipp Schilk

Sheet: /sheet604A8195/sheet6057F84C/Sheet60506BD8/
File: Gate_NOR4in.sch

Title: Fets & Crosses Engine

Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 173/398

A

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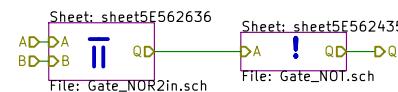
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic
Philipp Schilk
Sheet: /sheet604A8195/sheet6057F84C/sheet6054A98B/
File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 174/398

A

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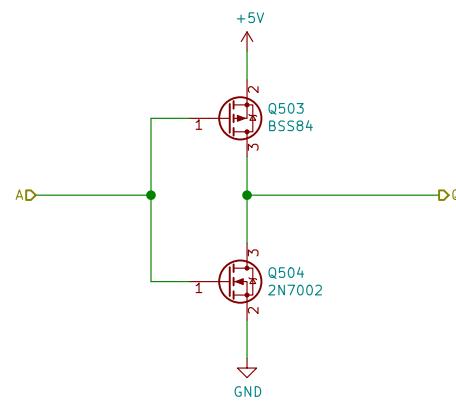
D

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet604A8195/sheet6057F84C/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 175/398

A

A

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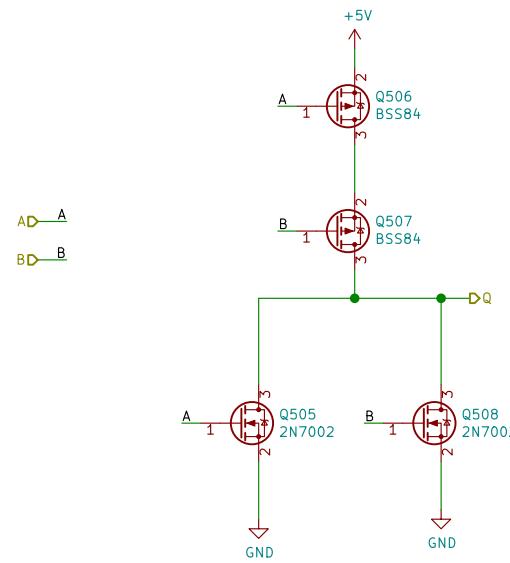
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet604A8195/sheet6057F84C/sheet6054A98B/sheet5E562636/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 176/398

A

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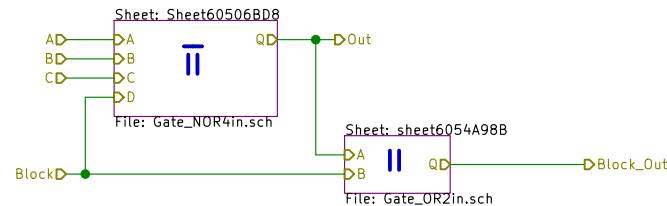
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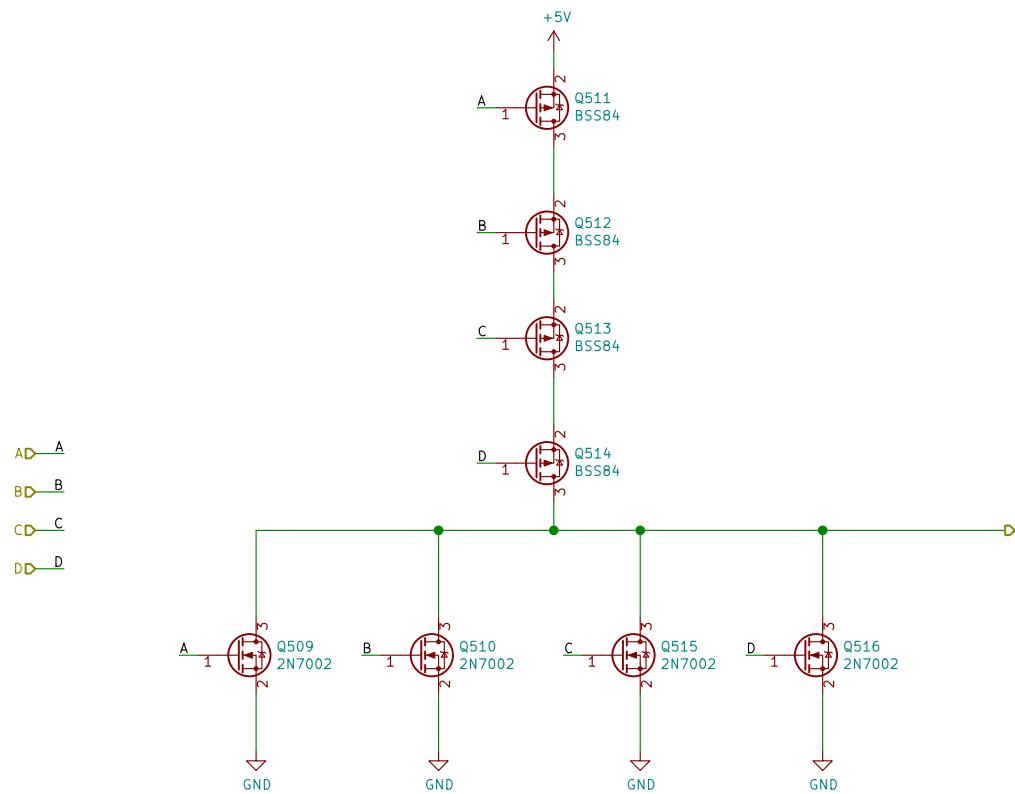
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**Philipp Schilk**Sheet: /sheet604A8195/sheet6057F84E/
File: Cell3in.sch**Title: Fets & Crosses Engine**Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 177/398



Philipp Schilk

Sheet: /sheet604A8195/sheet6057F84E/Sheet60506BD8/
File: Gate_NOR4in.sch

Title: Fets & Crosses Engine

Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 178/398

A

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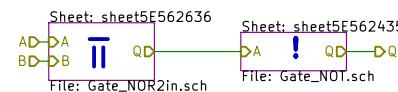
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic
Philipp Schilk
 Sheet: /sheet604A8195/sheet6057F84E/sheet6054A98B/
 File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 179/398

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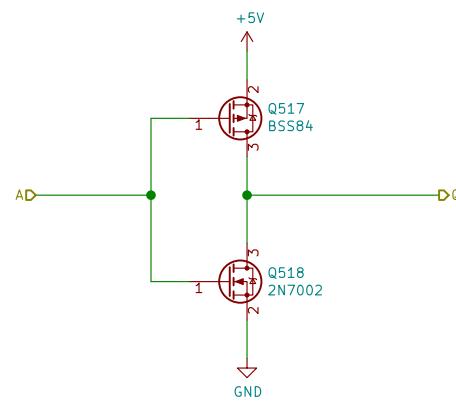
D

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet604A8195/sheet6057F84E/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 180/398

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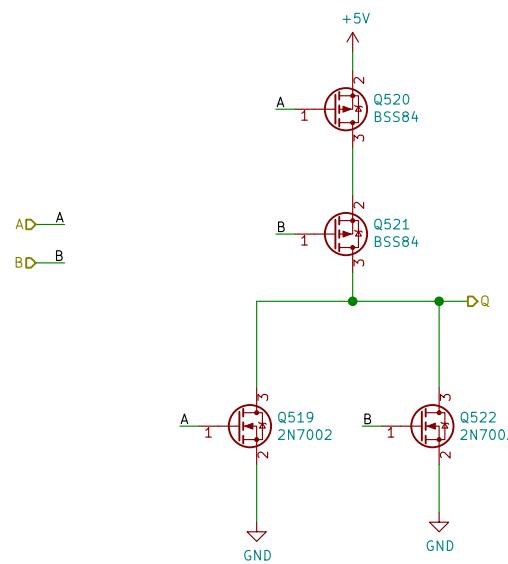
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet604A8195/sheet6057F84E/sheet6054A98B/sheet5E562636/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 181/398

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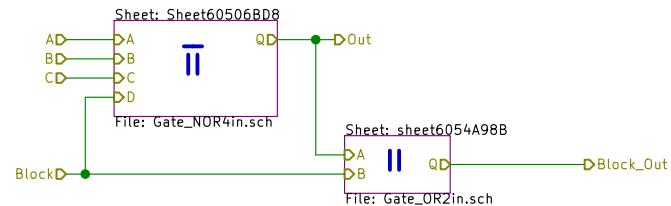
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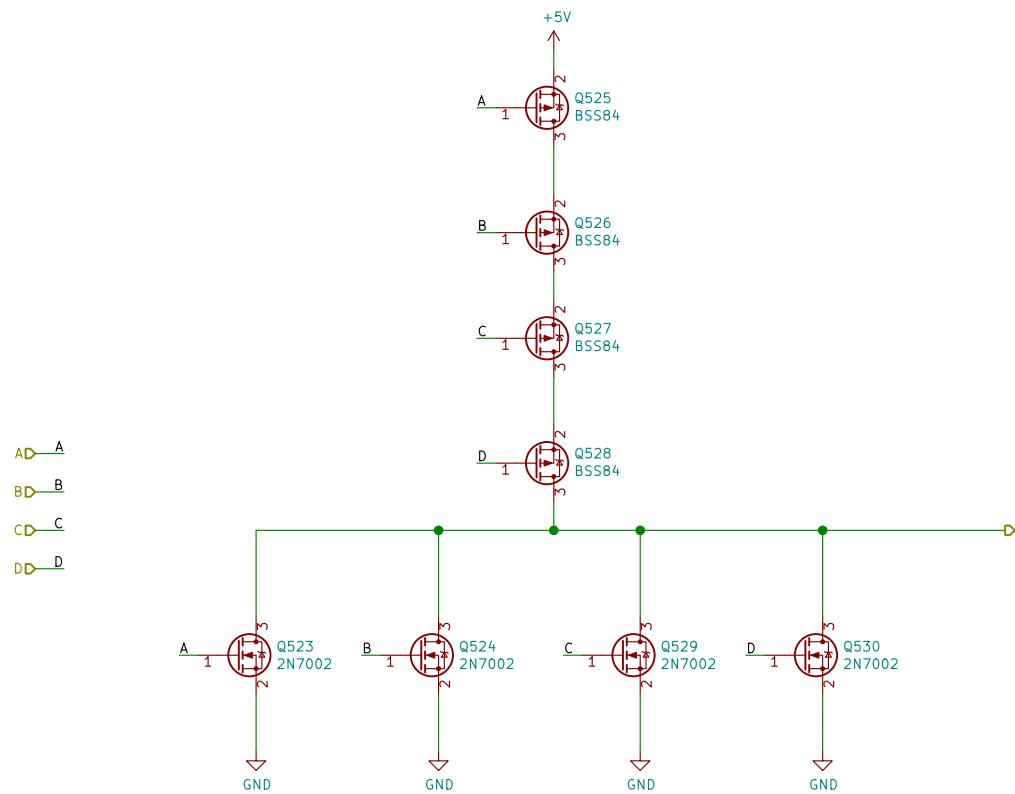
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**Philipp Schilk**Sheet: /sheet604A8195/sheet6057F84F/
File: Cell3in.sch**Title: Fets & Crosses Engine**Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 182/398



Philipp Schilk

Sheet: /sheet604A8195/sheet6057F84F/Sheet60506BD8/
File: Gate_NOR4in.sch

Title: Fets & Crosses Engine

Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 183/398

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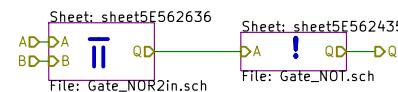
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet604A8195/sheet6057F84F/sheet6054A98B/

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Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 184/398

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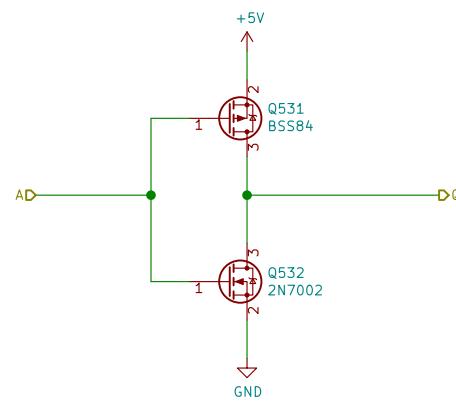
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet604A8195/sheet6057F84F/sheet6054A98B/sheet5E562435/

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Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 185/398

A

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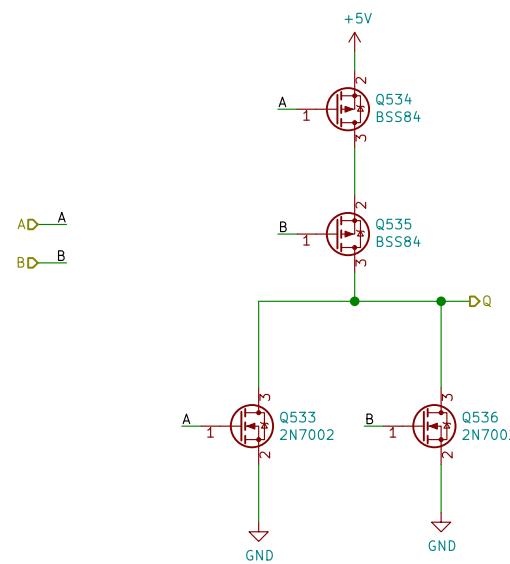
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Tic-Tac-Toe implementation from discrete-transistor CMOS logic

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KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 186/398

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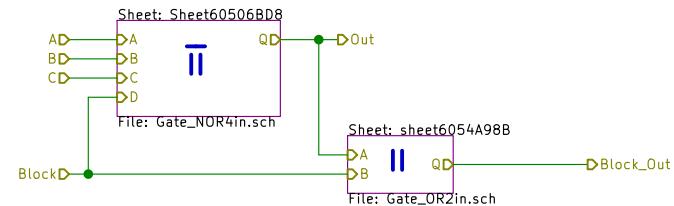
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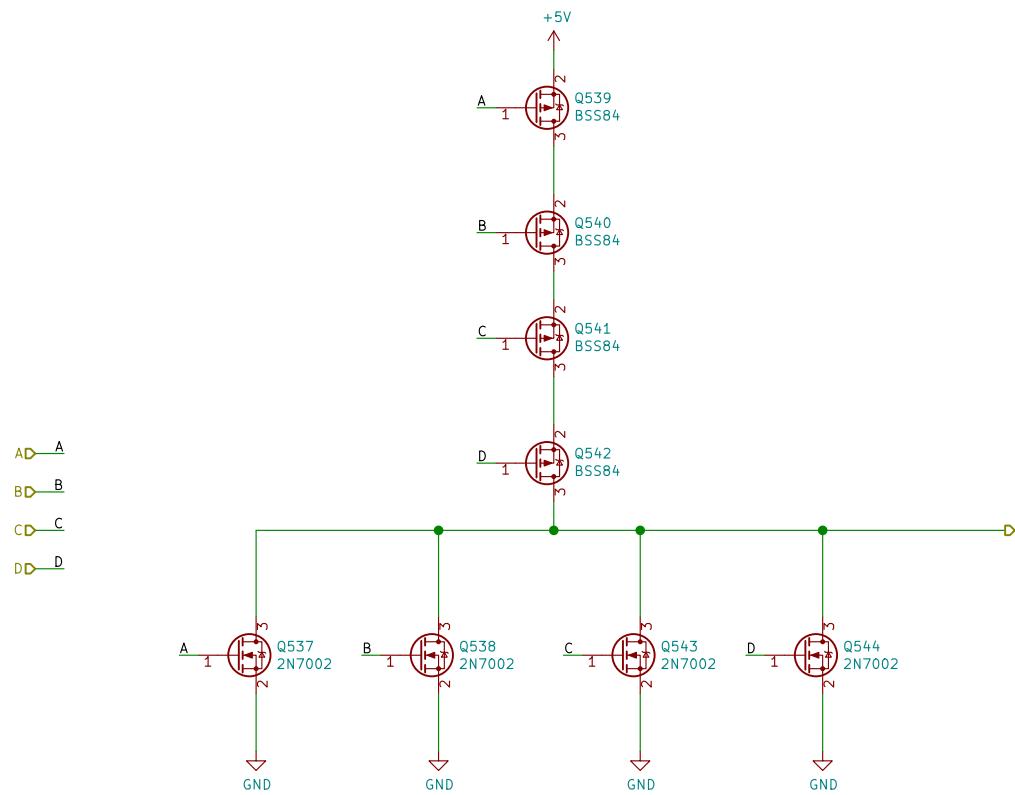
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**Philipp Schilk**Sheet: /sheet604A8195/sheet6057F850/
File: Cell3in.sch**Title: Fets & Crosses Engine**Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 187/398



Philipp Schilk

Sheet: /sheet604A8195/sheet6057F850/Sheet60506BD8/
File: Gate_NOR4in.sch

Title: Fets & Crosses Engine

Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 188/398

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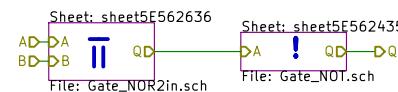
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet604A8195/sheet6057F850/sheet6054A98B/

File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 189/398

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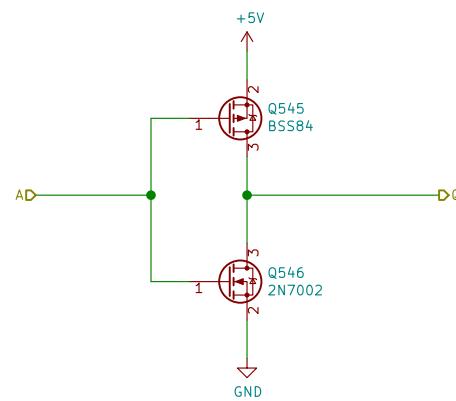
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet604A8195/sheet6057F850/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 190/398

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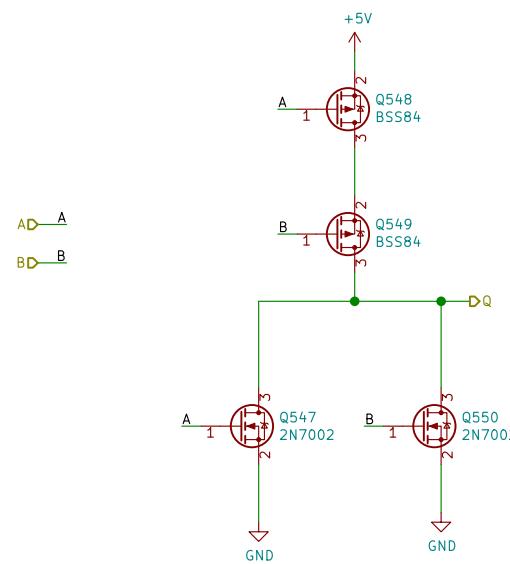
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Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet604A8195/sheet6057F850/sheet6054A98B/sheet5E562636/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 191/398

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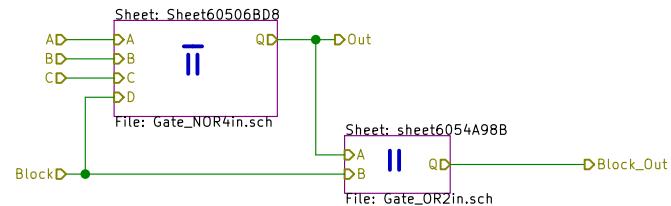
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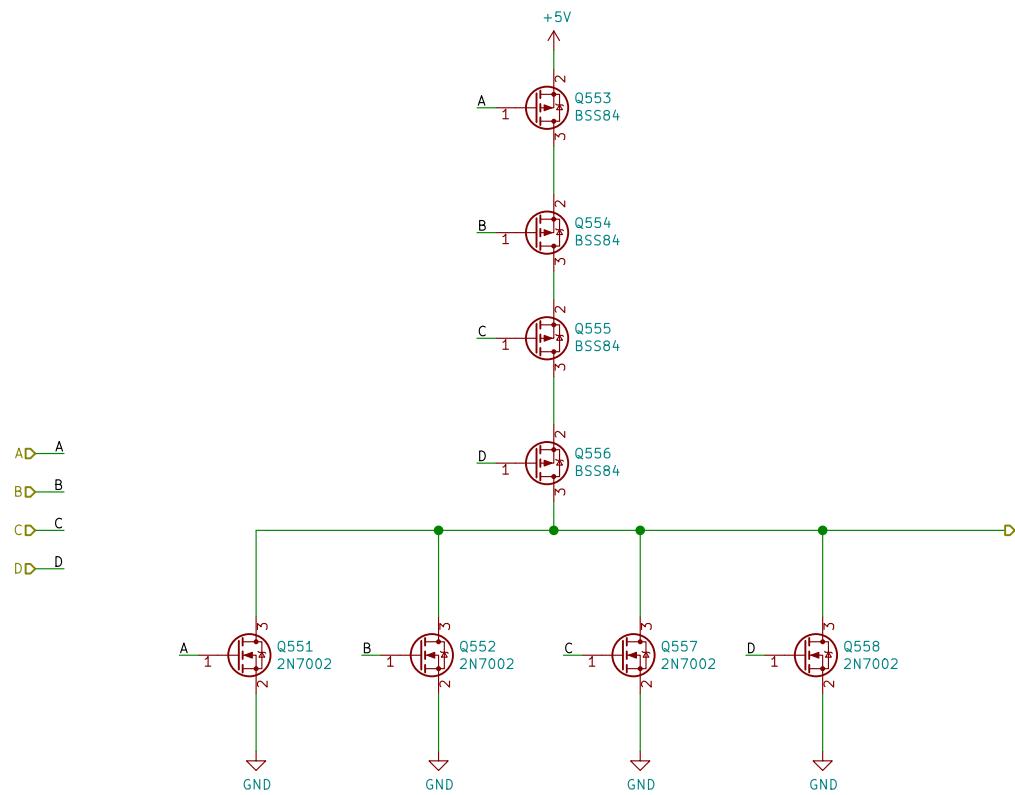
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File: Cell3in.sch**Title: Fets & Crosses Engine**Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 192/398



Philipp Schilk

Sheet: /sheet604A8195/sheet6057F851/Sheet60506BD8/
File: Gate_NOR4in.sch

Title: Fets & Crosses Engine

Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 193/398

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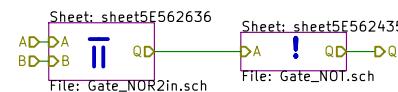
B

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic
Philipp Schilk
Sheet: /sheet604A8195/sheet6057F851/sheet6054A98B/
File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 194/398

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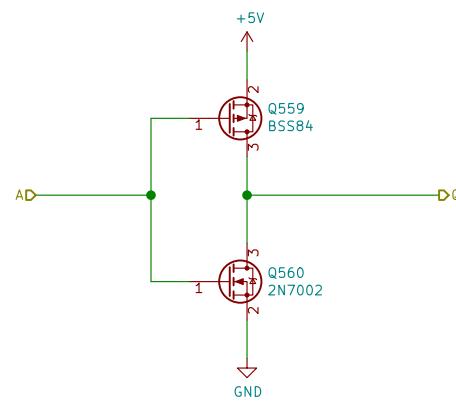
D

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet604A8195/sheet6057F851/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 195/398

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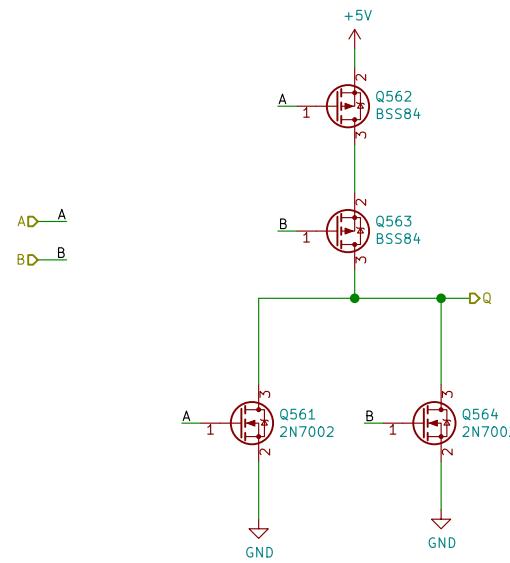
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet604A8195/sheet6057F851/sheet6054A98B/sheet5E562636/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 196/398

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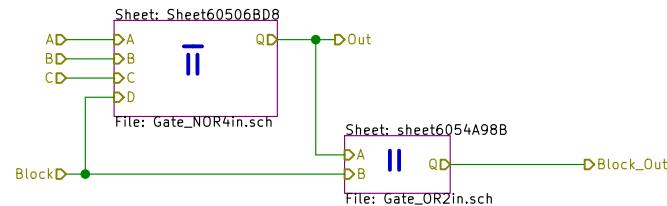
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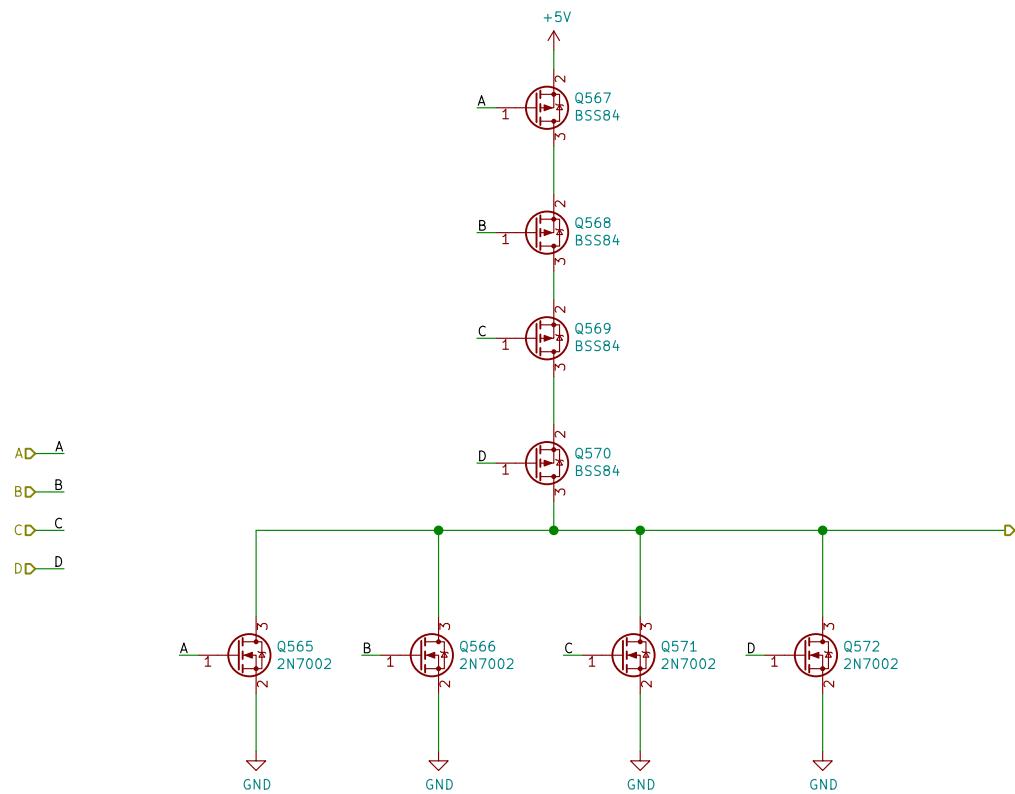
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KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 197/398



Philipp Schilk

Sheet: /sheet604A8195/sheet6057F852/Sheet60506BD8/
File: Gate_NOR4in.sch

Title: Fets & Crosses Engine

Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 198/398

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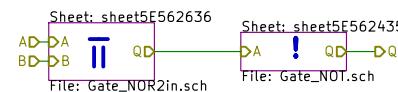
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet604A8195/sheet6057F852/sheet6054A98B/

File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 199/398

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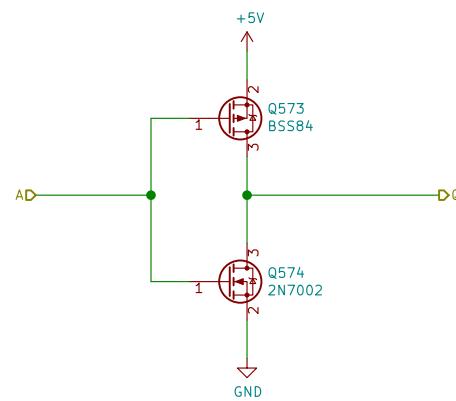
D

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet604A8195/sheet6057F852/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 200/398

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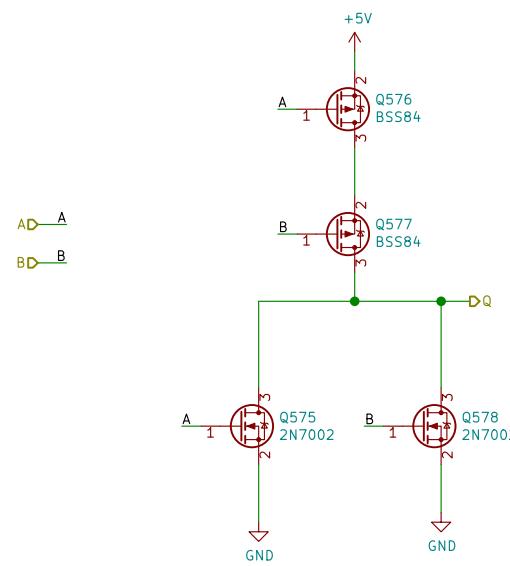
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet604A8195/sheet6057F852/sheet6054A98B/sheet5E562636/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 201/398

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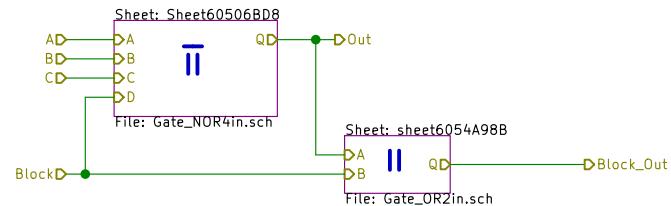
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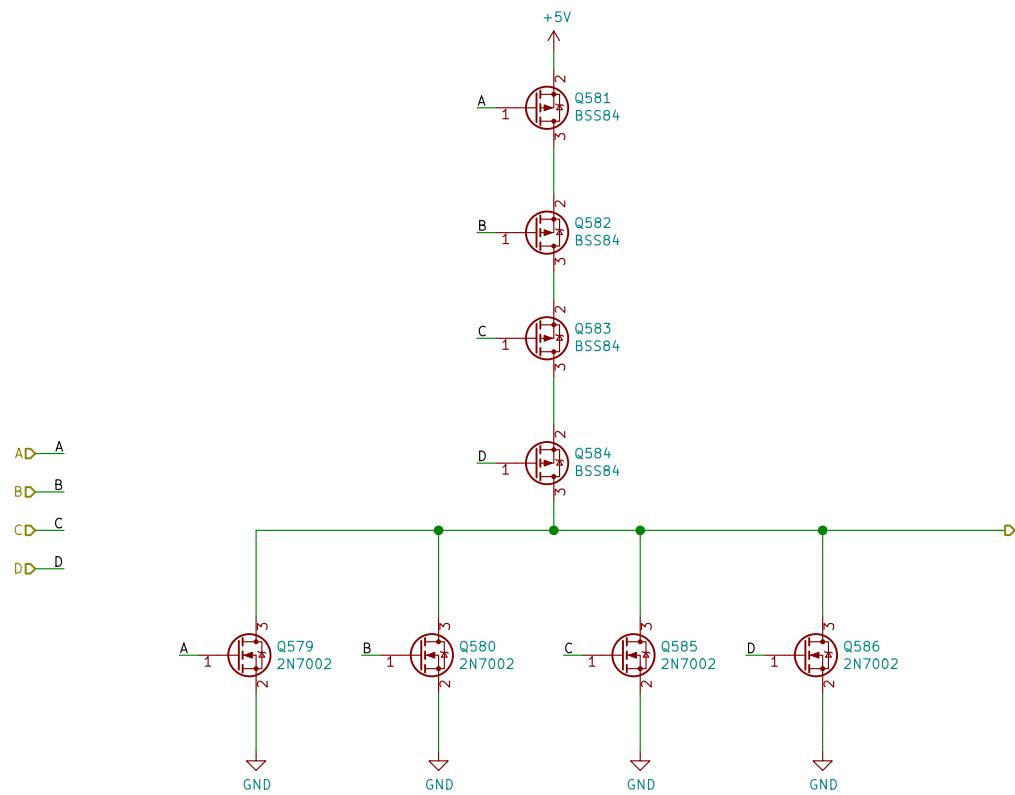
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**Philipp Schilk**

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File: Cell3in.sch

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Id: 202/398



Philipp Schilk

Sheet: /sheet604A8195/sheet6057F853/Sheet60506BD8/
File: Gate_NOR4in.sch

Title: Fets & Crosses Engine

Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 203/398

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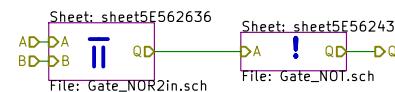
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet604A8195/sheet6057F853/sheet6054A98B/

File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 204/398

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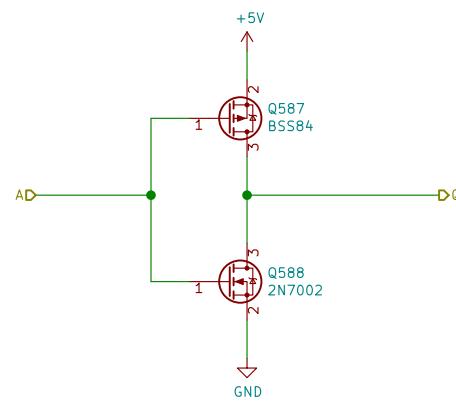
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet604A8195/sheet6057F853/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 205/398

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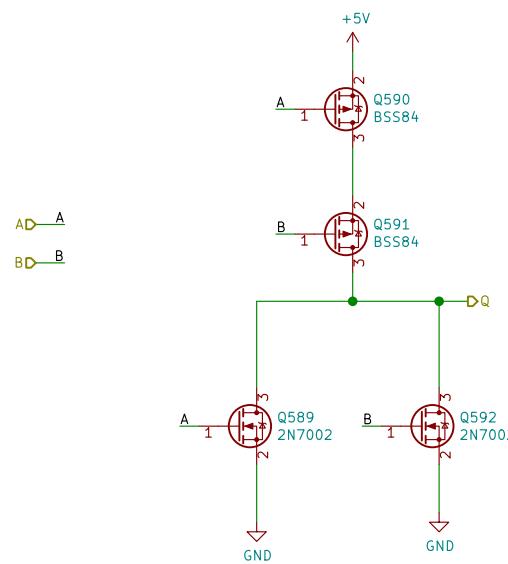
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

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Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 206/398

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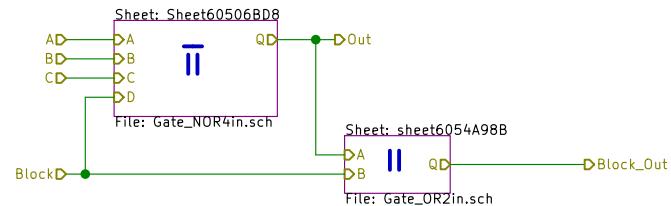
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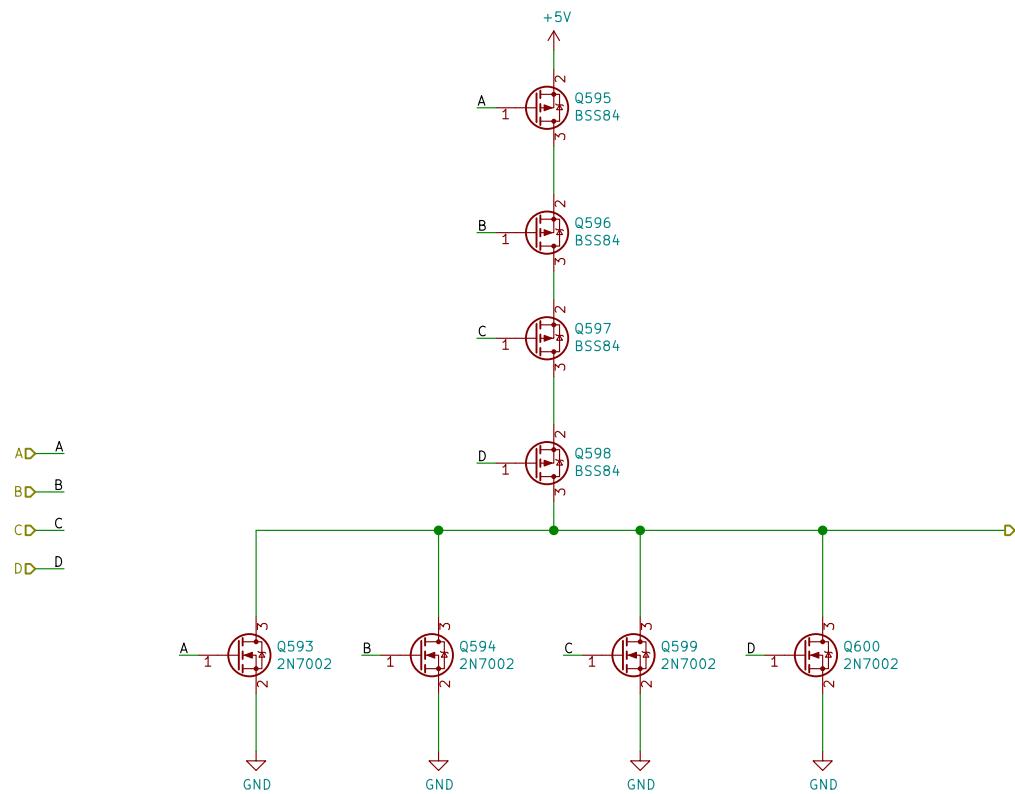
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**Philipp Schilk**Sheet: /sheet604A8195/sheet6057F854/
File: Cell3in.sch**Title: Fets & Crosses Engine**Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 207/398



Philipp Schilk

Sheet: /sheet604A8195/sheet6057F854/Sheet60506BD8/
File: Gate_NOR4in.sch

Title: Fets & Crosses Engine

Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 208/398

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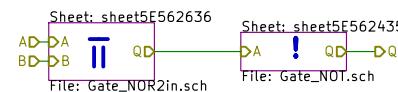
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet604A8195/sheet6057F854/sheet6054A98B/

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Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 209/398

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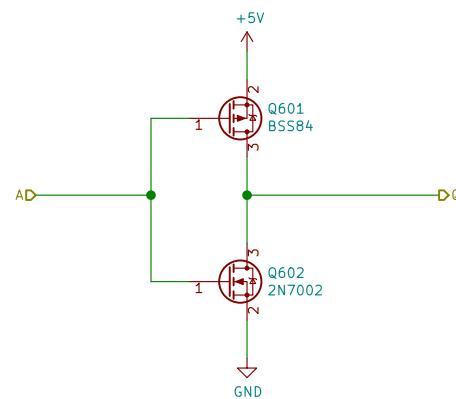
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet604A8195/sheet6057F854/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 210/398

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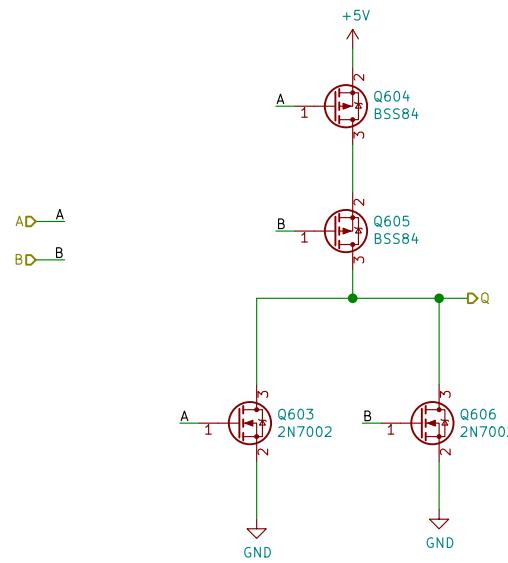
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

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File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 211/398

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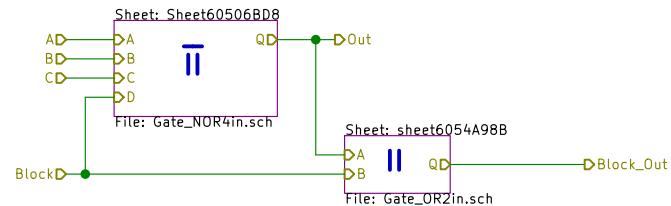
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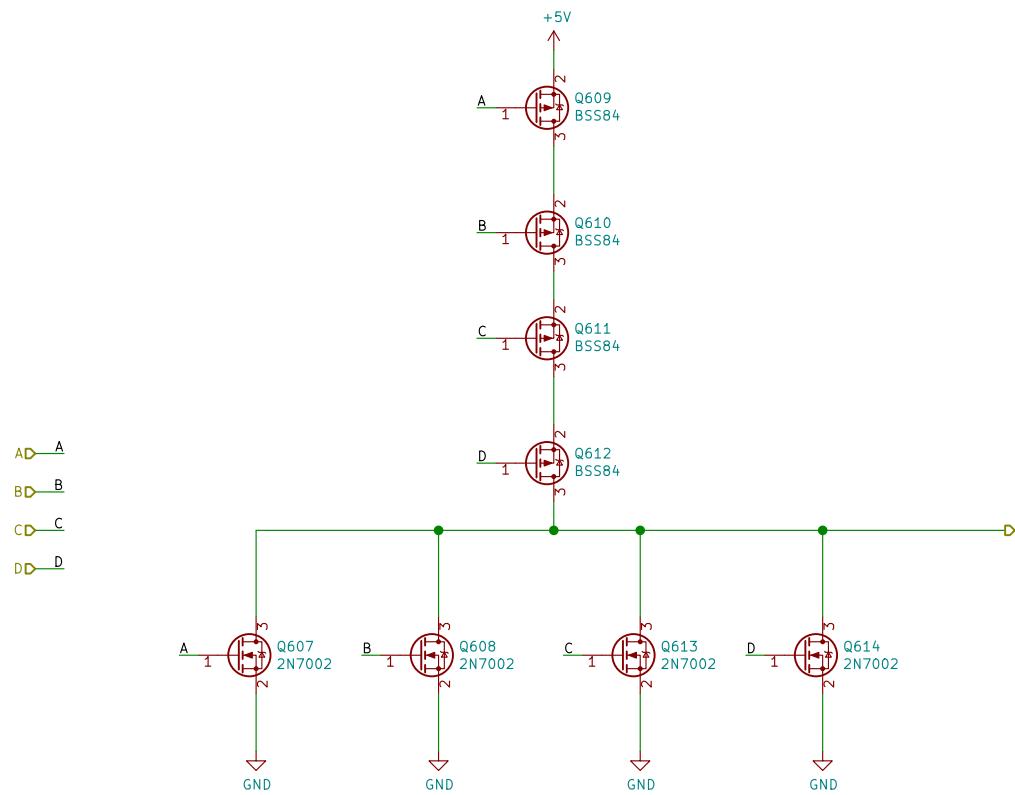
C

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**Philipp Schilk**Sheet: /sheet604A8195/sheet605862BA/
File: Cell3in.sch**Title: Fets & Crosses Engine**Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 212/398



Philipp Schilk

Sheet: /sheet604A8195/sheet605862BA/Sheet60506BD8/
File: Gate_NOR4in.sch

Title: Fets & Crosses Engine

Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 213/398

A

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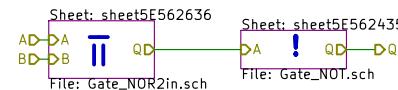
B

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet604A8195/sheet605862BA/sheet6054A98B/

File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 214/398

A

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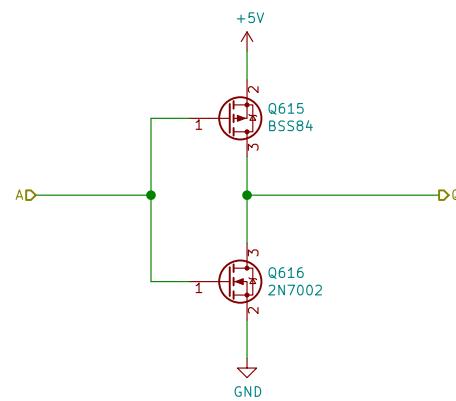
D

A

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet604A8195/sheet605862BA/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 215/398

A

A

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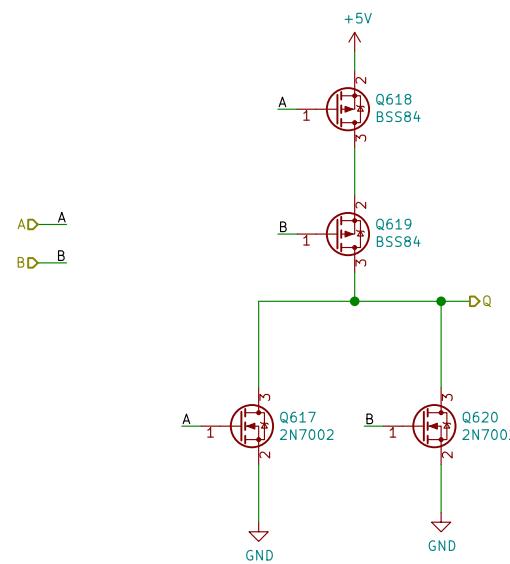
B

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet604A8195/sheet605862BA/sheet6054A98B/sheet5E562636/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

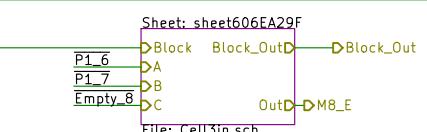
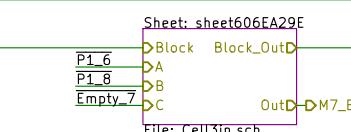
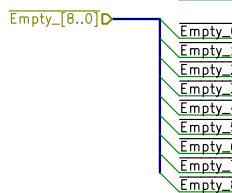
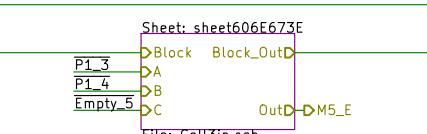
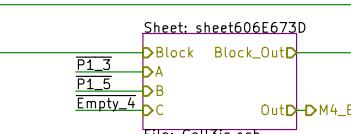
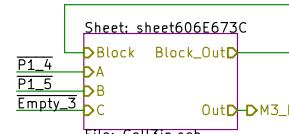
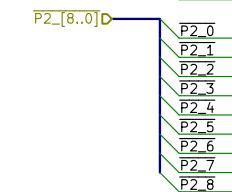
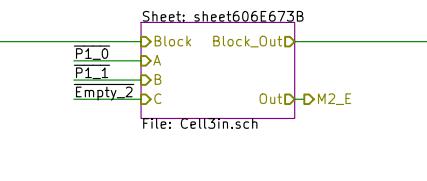
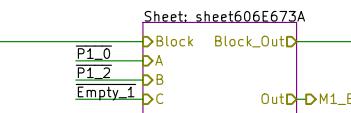
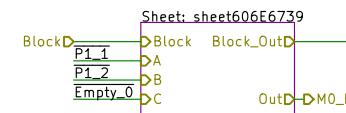
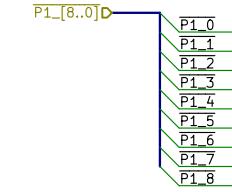
Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 216/398

A



Philipp Schilk

Sheet: /sheet606A7B7E/
File: Engine_BLOCK_ROW.sch

Title: Fets & Crosses Engine

Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 217/398

A

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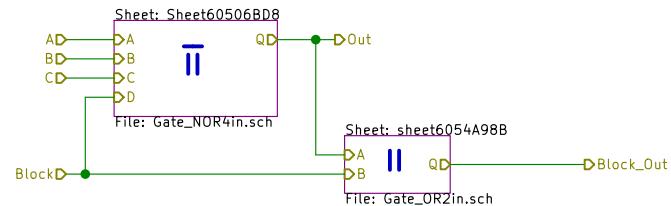
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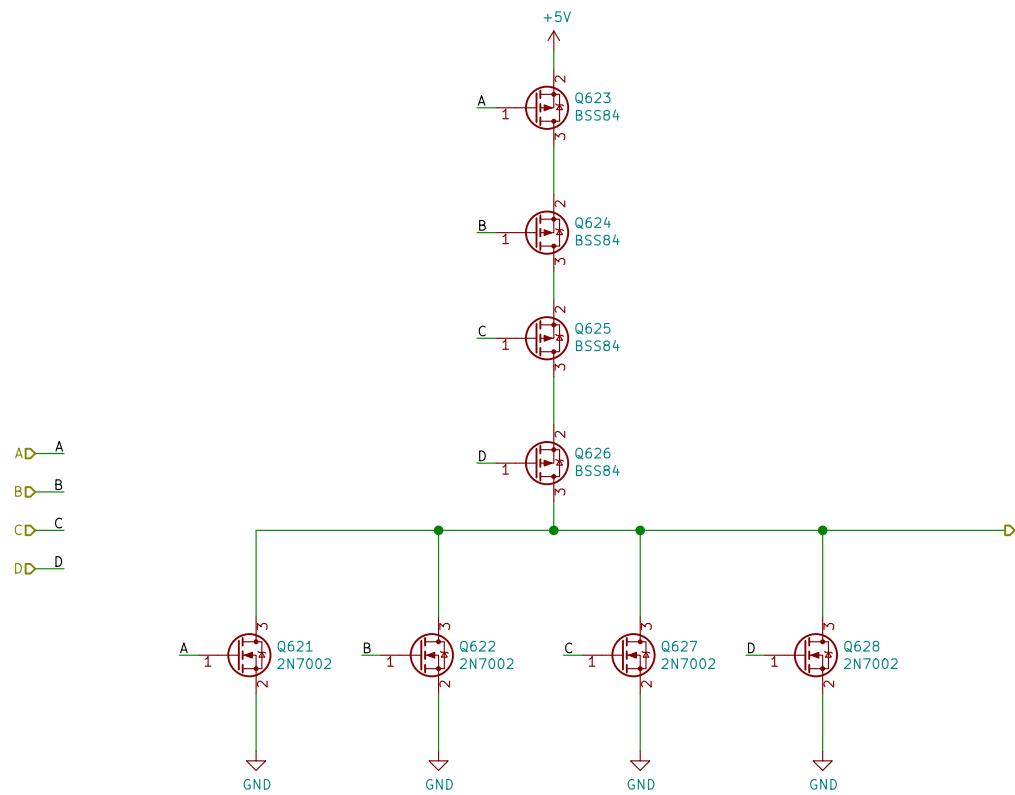
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**Philipp Schilk**Sheet: /sheet606A7B7E/sheet606E6739/
File: Cell3in.sch**Title: Fets & Crosses Engine**Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 218/398



Philipp Schilk

Sheet: /sheet606A7B7E/sheet606E6739/Sheet60506BD8/
File: Gate_NOR4in.sch

Title: Fets & Crosses Engine

Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 219/398

A

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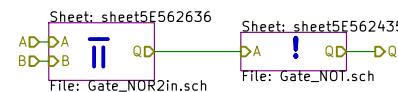
B

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet606A7B7E/sheet606E6739/sheet6054A98B/

File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 220/398

A

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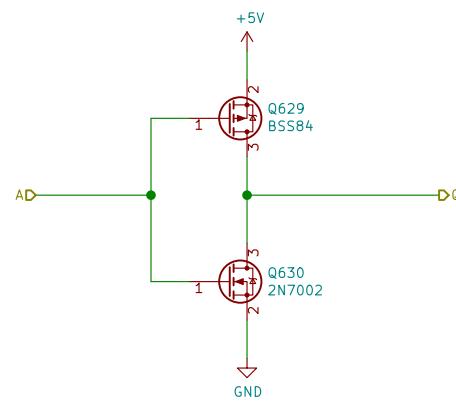
D

A

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet606A7B7E/sheet606E6739/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 221/398

A

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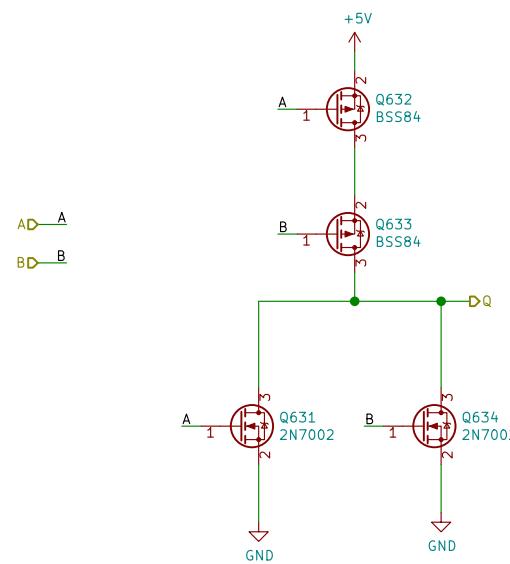
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet606A7B7E/sheet606E6739/sheet6054A98B/sheet5E562636/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 222/398

A

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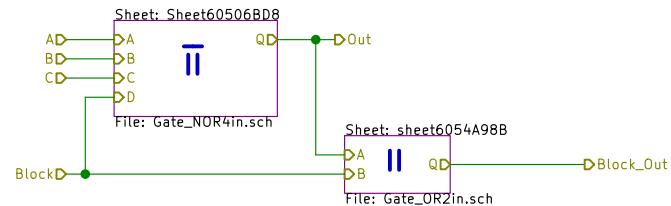
B

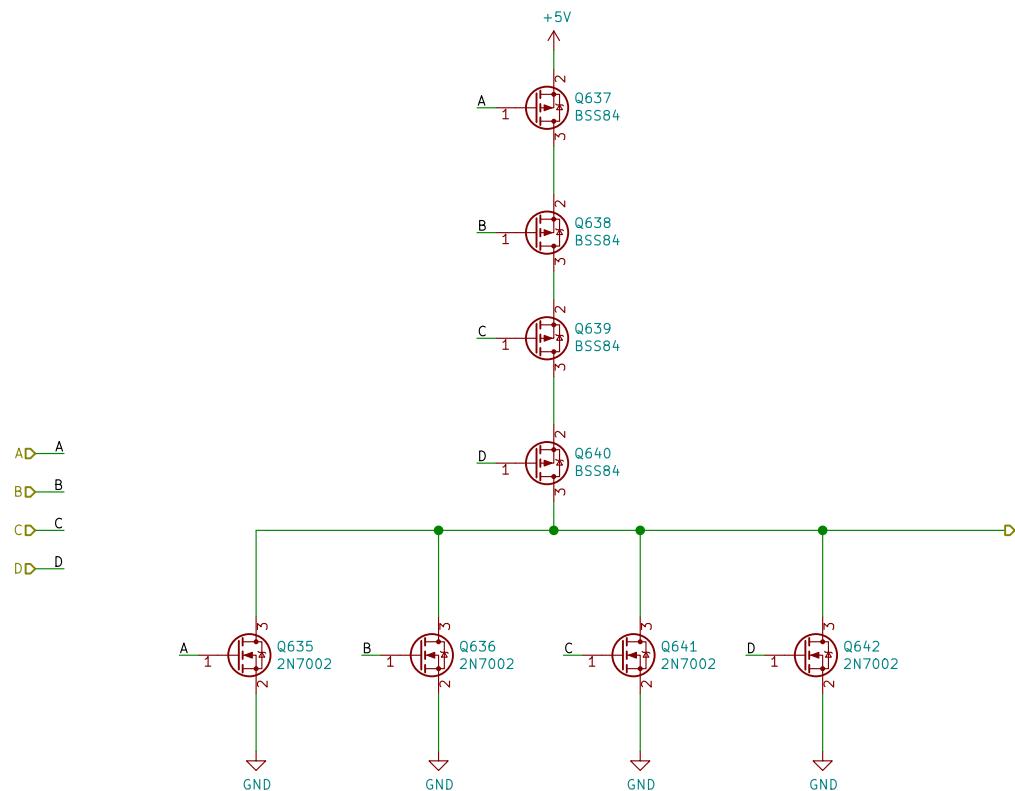
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**Philipp Schilk**Sheet: /sheet606A7B7E/sheet606E673A/
File: Cell3in.sch**Title: Fets & Crosses Engine**Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 223/398



Philipp Schilk

Sheet: /sheet606A7B7E/sheet606E673A/Sheet60506BD8/
File: Gate_NOR4in.sch

Title: Fets & Crosses Engine

Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 224/398

A

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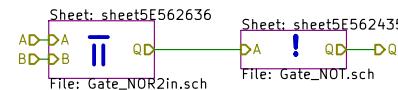
B

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet606A7B7E/sheet606E673A/sheet6054A98B/

File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 225/398

A

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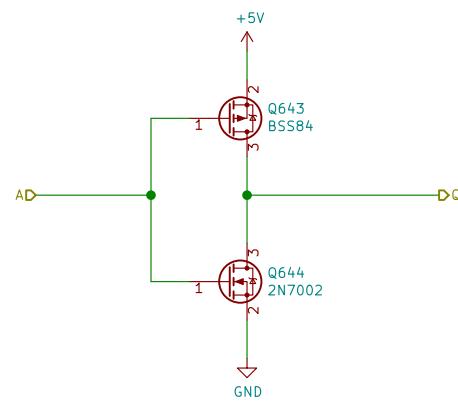
D

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet606A7B7E/sheet606E673A/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 226/398

A

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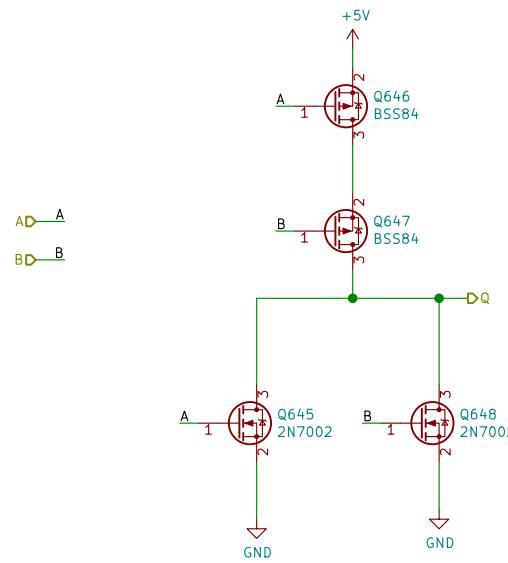
B

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet606A7B7E/sheet606E673A/sheet6054A98B/sheet5E562636/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 227/398

A

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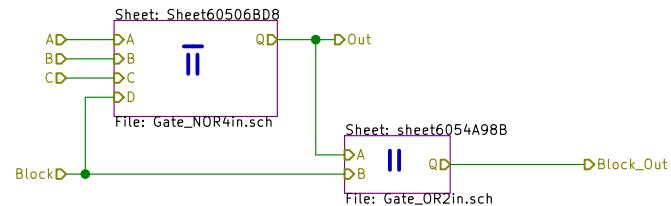
B

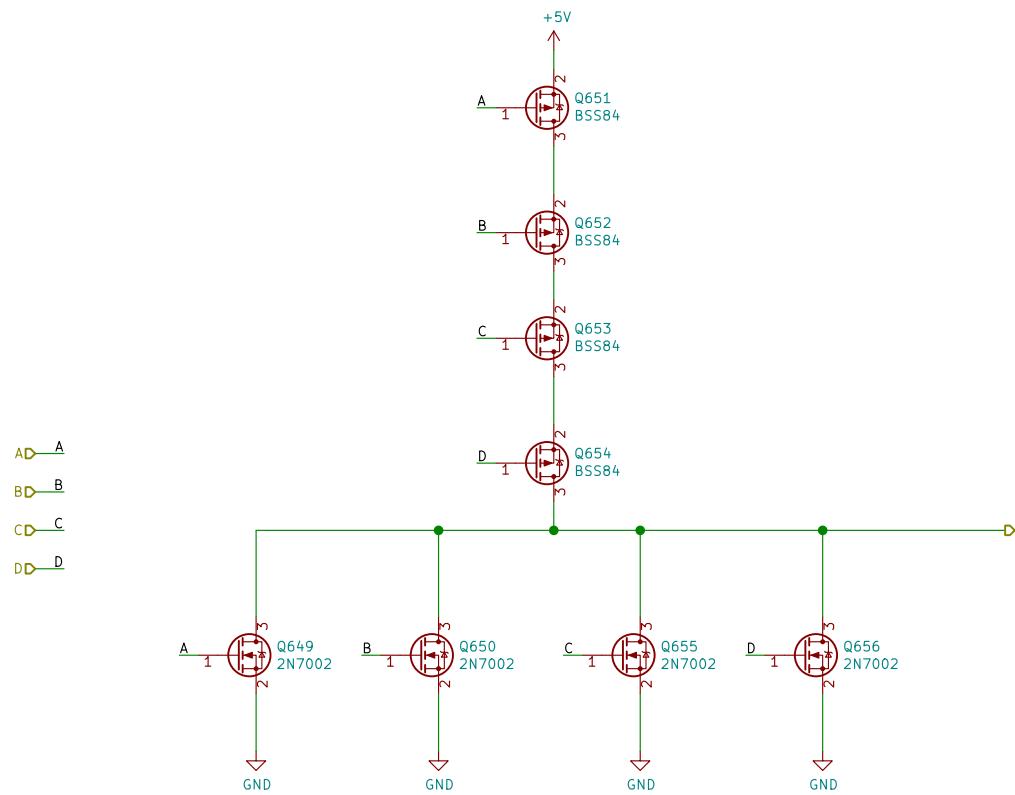
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**Philipp Schilk**Sheet: /sheet606A7B7E/sheet606E673B/
File: Cell3in.sch**Title: Fets & Crosses Engine**Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 228/398



Philipp Schilk

Sheet: /sheet606A7B7E/sheet606E673B/Sheet60506BD8/
File: Gate_NOR4in.sch

Title: Fets & Crosses Engine

Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 229/398

A

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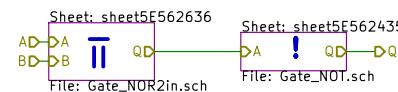
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet606A7B7E/sheet606E673B/sheet6054A98B/

File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 230/398

A

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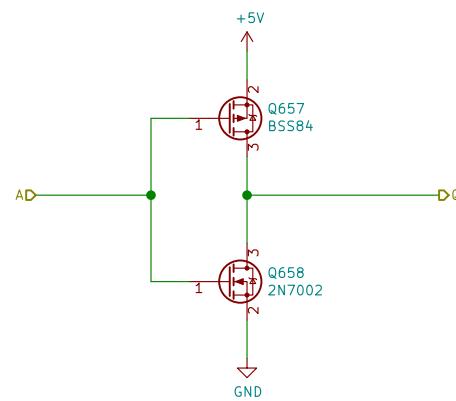
D

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet606A7B7E/sheet606E673B/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 231/398

A

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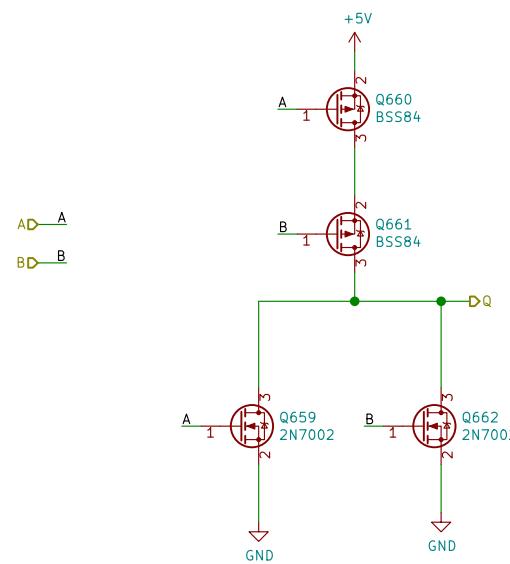
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet606A7B7E/sheet606E673B/sheet6054A98B/sheet5E562636/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 232/398

A

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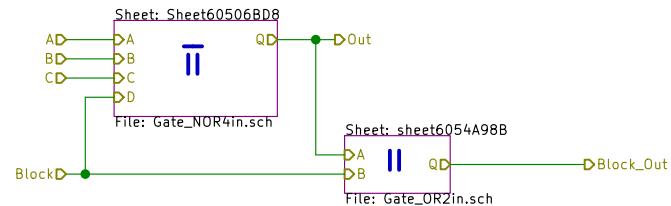
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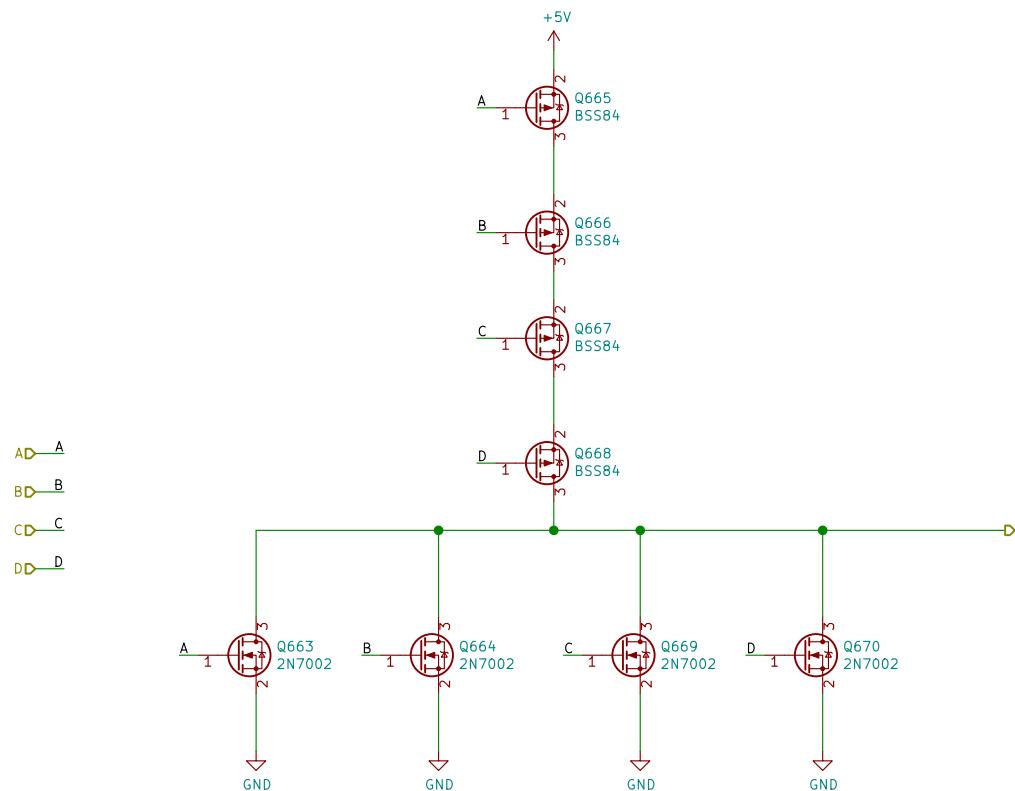
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**Philipp Schilk**Sheet: /sheet606A7B7E/sheet606E673C/
File: Cell3in.sch**Title: Fets & Crosses Engine**Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 233/398



Philipp Schilk

Sheet: /sheet606A7B7E/sheet606E673C/Sheet60506BD8/
File: Gate_NOR4in.sch

Title: Fets & Crosses Engine

Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 234/398

A

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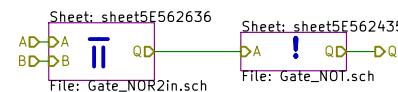
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet606A7B7E/sheet606E673C/sheet6054A98B/

File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 235/398

A

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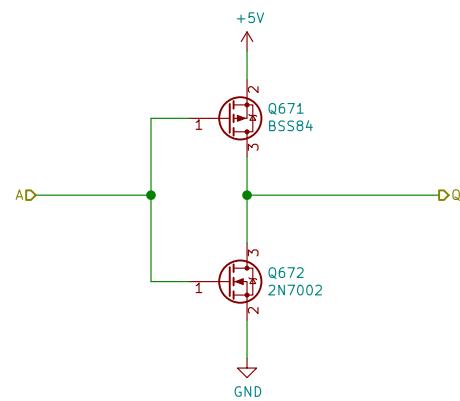
D

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet606A7B7E/sheet606E673C/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 236/398

A

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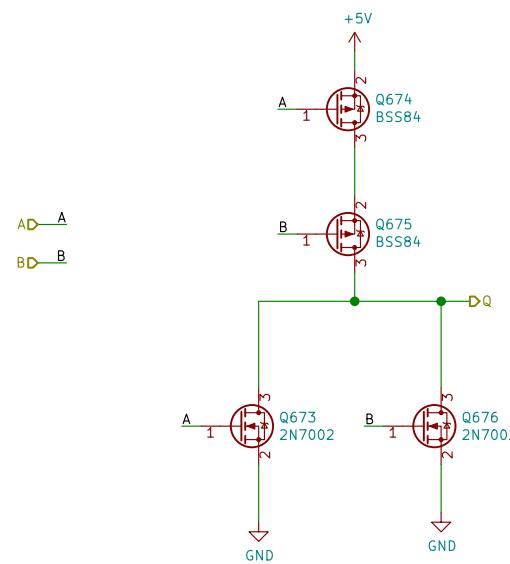
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet606A7B7E/sheet606E673C/sheet6054A98B/sheet5E562636/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 237/398

A

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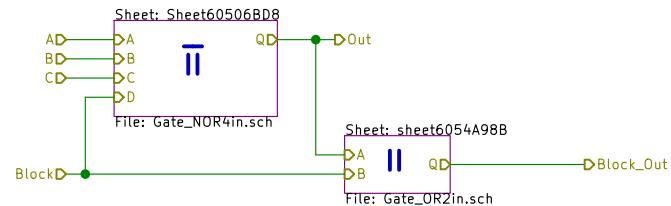
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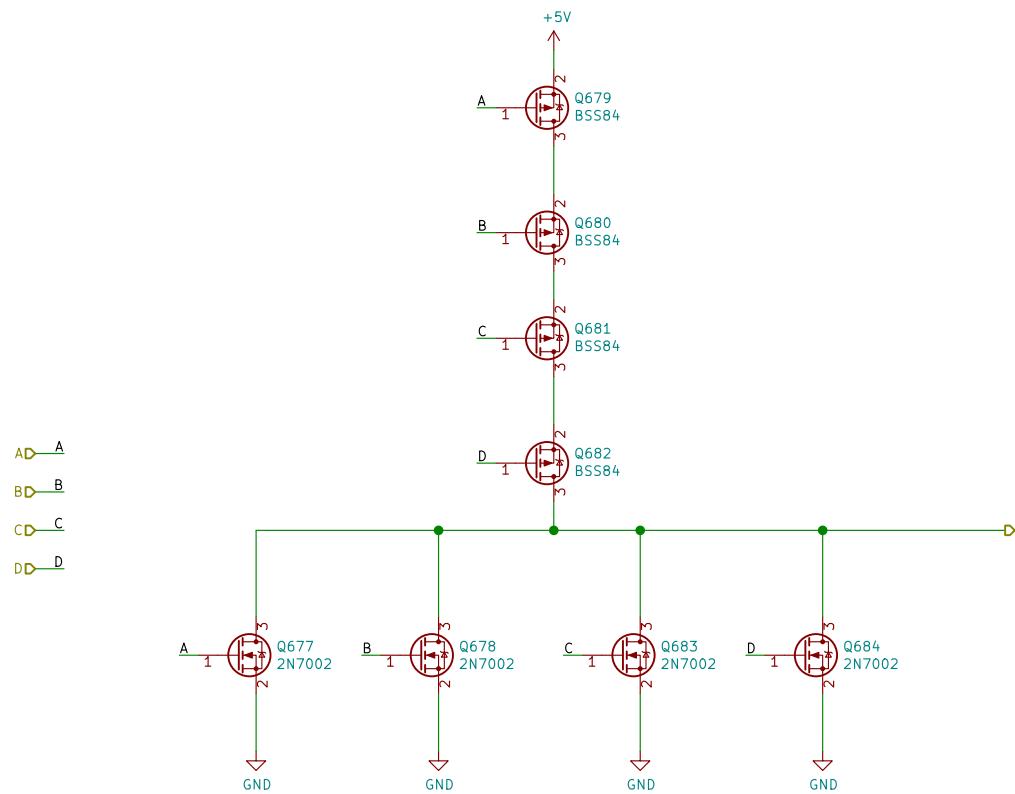
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**Philipp Schilk**Sheet: /sheet606A7B7E/sheet606E673D/
File: Cell3in.sch**Title: Fets & Crosses Engine**Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 238/398



Philipp Schilk

Sheet: /sheet606A7B7E/sheet606E673D/Sheet60506BD8/
File: Gate_NOR4in.sch

Title: Fets & Crosses Engine

Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 239/398

A

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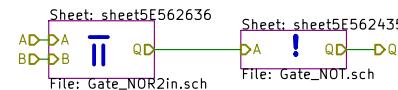
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet606A7B7E/sheet606E673D/sheet6054A98B/

File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 240/398

A

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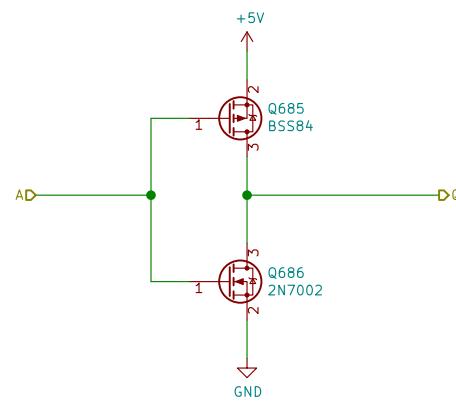
D

A

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet606A7B7E/sheet606E673D/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 241/398

A

A

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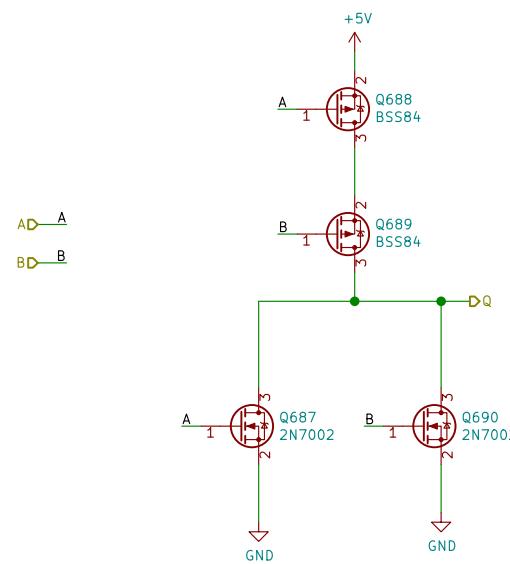
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet606A7B7E/sheet606E673D/sheet6054A98B/sheet5E562636/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 242/398

A

A

B

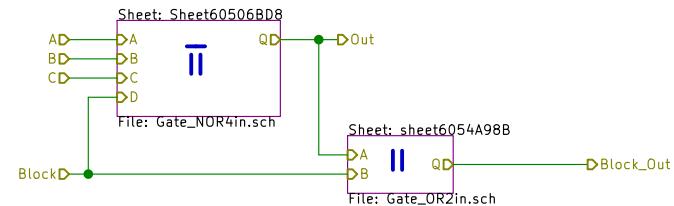
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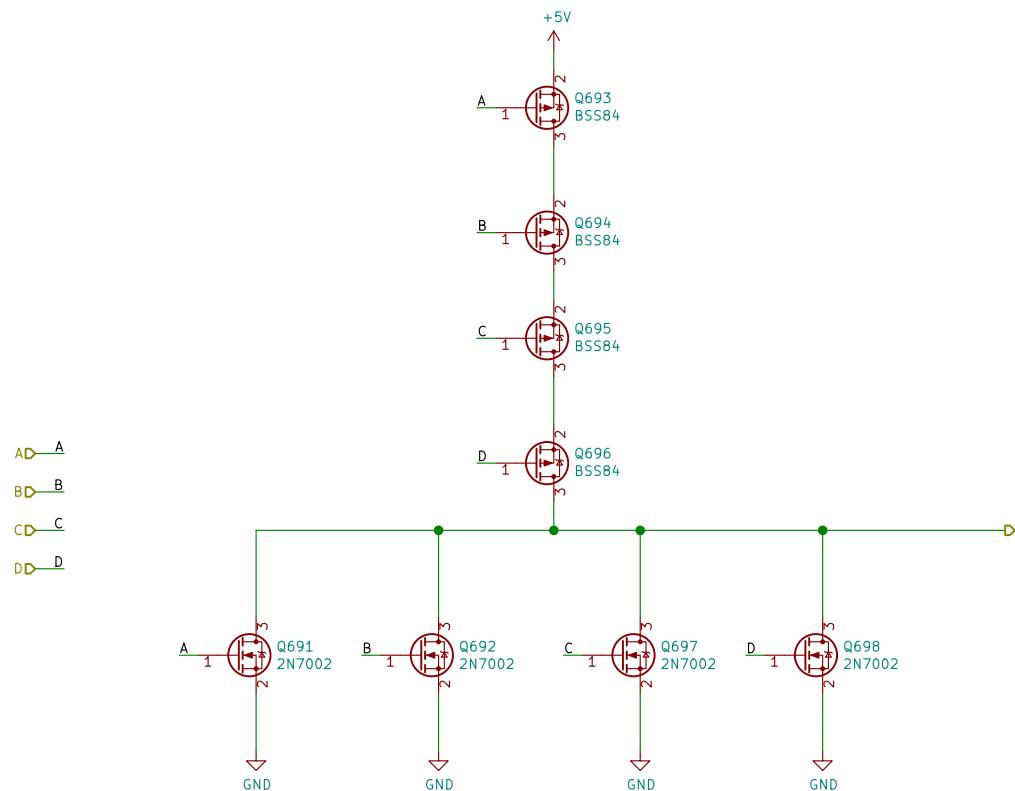
C

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**Philipp Schilk**Sheet: /sheet606A7B7E/sheet606E673E/
File: Cell3in.sch**Title: Fets & Crosses Engine**Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 243/398



Philipp Schilk

Sheet: /sheet606A7B7E/sheet606E673E/Sheet60506BD8/
File: Gate_NOR4in.sch

Title: Fets & Crosses Engine

Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 244/398

A

A

B

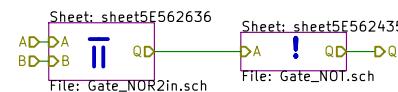
B

C

C

D

D

https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp SchilkSheet: /sheet606A7B7E/sheet606E673E/sheet6054A98B/
File: Gate_OR2in.sch**Title: Fets & Crosses Engine**Size: A4 Date: 2020-09-15
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 245/398

A

B

C

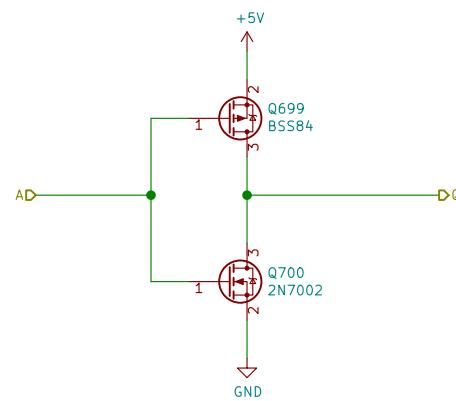
D

A

B

C

D

https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet606A7B7E/sheet606E673E/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 246/398

A

A

B

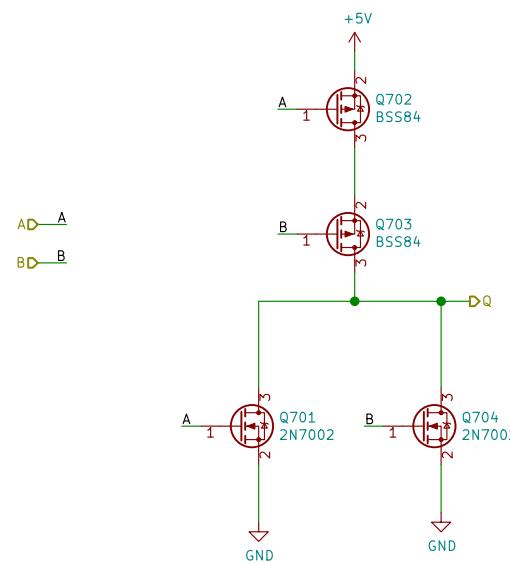
B

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet606A7B7E/sheet606E673E/sheet6054A98B/sheet5E562636/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 247/398

A

A

B

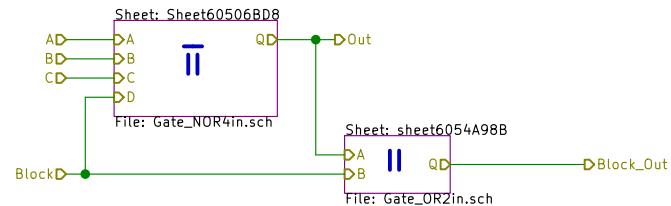
B

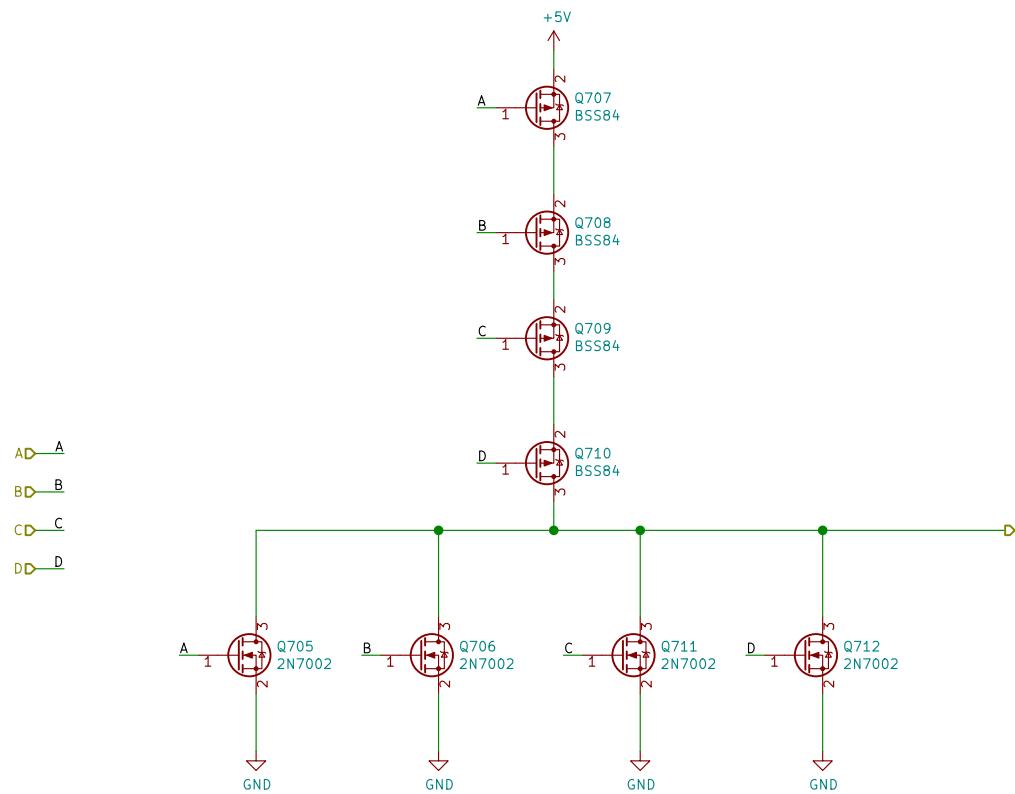
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**Philipp Schilk**Sheet: /sheet606A7B7E/sheet606EA29D/
File: Cell3in.sch**Title: Fets & Crosses Engine**Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 248/398



Philipp Schilk

Sheet: /sheet606A7B7E/sheet606EA29D/Sheet60506BD8/
File: Gate_NOR4in.sch

Title: Fets & Crosses Engine

Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 249/398

A

A

B

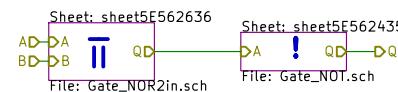
B

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet606A7B7E/sheet606EA29D/sheet6054A98B/

File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 250/398

A

B

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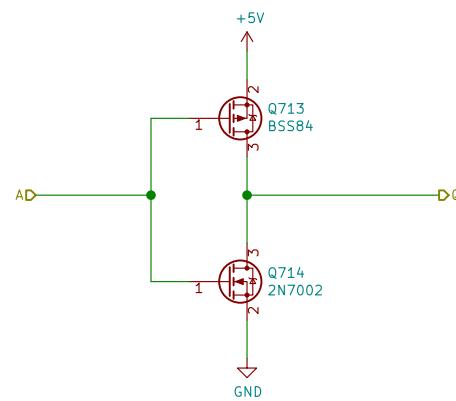
D

A

B

C

D

https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet606A7B7E/sheet606EA29D/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 251/398

A

A

B

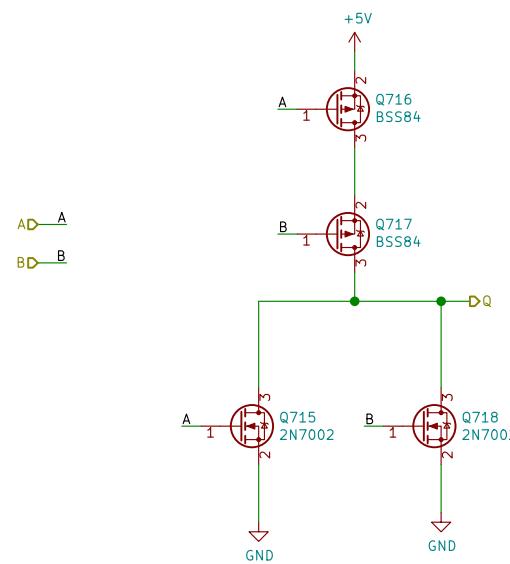
B

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet606A7B7E/sheet606EA29D/sheet6054A98B/sheet5E562636/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 252/398

A

A

B

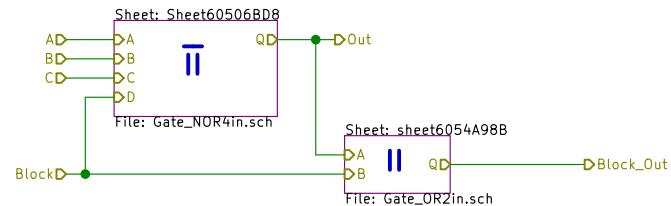
B

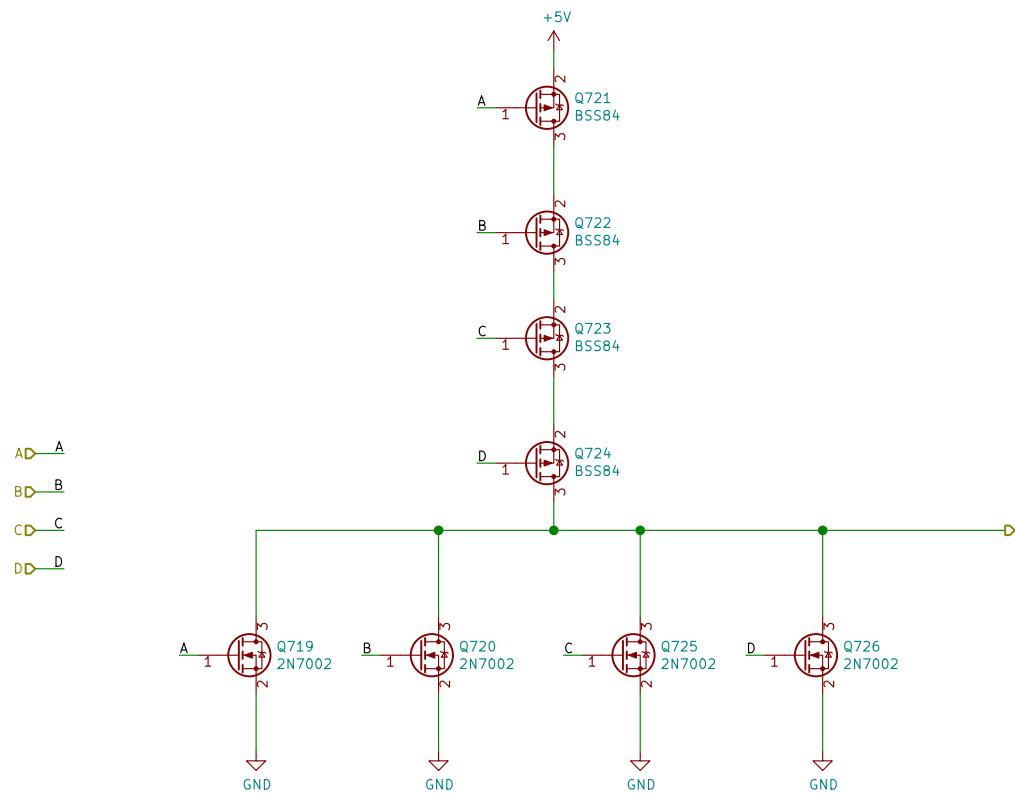
C

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D

**Philipp Schilk**Sheet: /sheet606A7B7E/sheet606EA29E/
File: Cell3in.sch**Title: Fets & Crosses Engine**Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 253/398



Philipp Schilk

Sheet: /sheet606A7B7E/sheet606EA29E/Sheet60506BD8/
File: Gate_NOR4in.sch

Title: Fets & Crosses Engine

Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 254/398

A

A

B

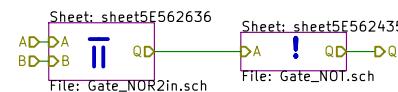
B

C

C

D

D

https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet606A7B7E/sheet606EA29E/sheet6054A98B/

File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 255/398

A

B

C

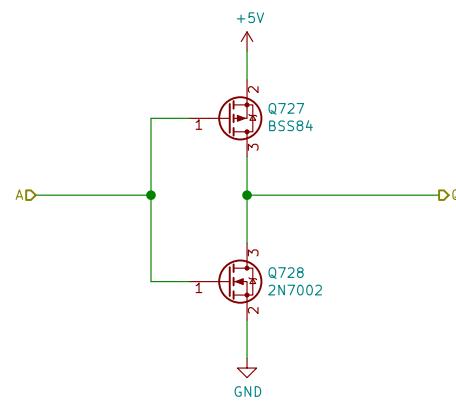
D

A

B

C

D

https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet606A7B7E/sheet606EA29E/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 256/398

A

A

B

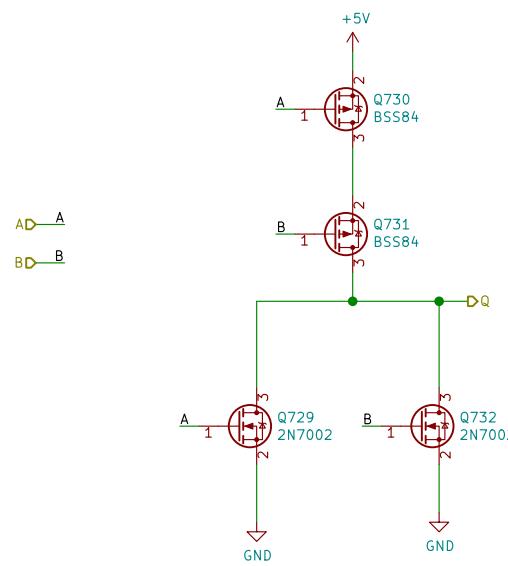
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet606A7B7E/sheet606EA29E/sheet6054A98B/sheet5E562636/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 257/398

A

A

B

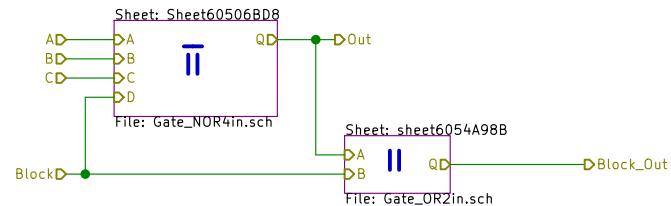
B

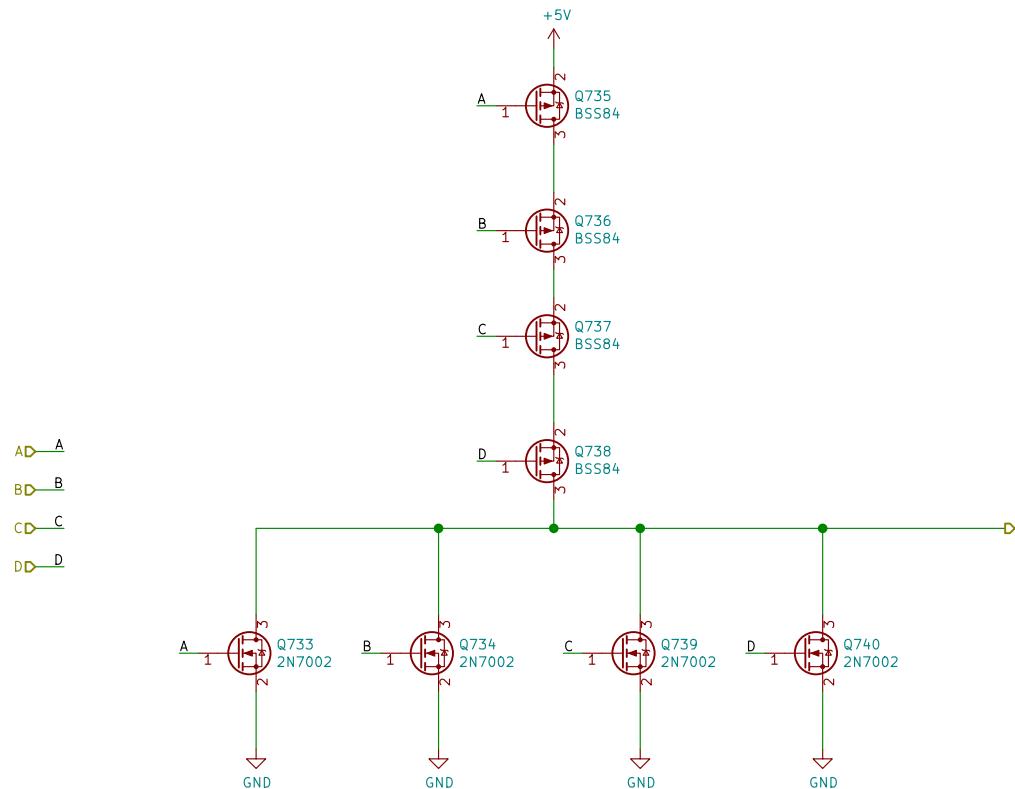
C

C

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D

**Philipp Schilk**Sheet: /sheet606A7B7E/sheet606EA29F/
File: Cell3in.sch**Title: Fets & Crosses Engine**Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 258/398



Philipp Schilk

Sheet: /sheet606A7B7E/sheet606EA29F/Sheet60506BD8/
File: Gate_NOR4in.sch

Title: Fets & Crosses Engine

Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 259/398

A

A

B

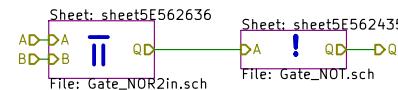
B

C

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D

https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic
Philipp Schilk
Sheet: /sheet606A7B7E/sheet606EA29F/sheet6054A98B/
File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 260/398

A

B

C

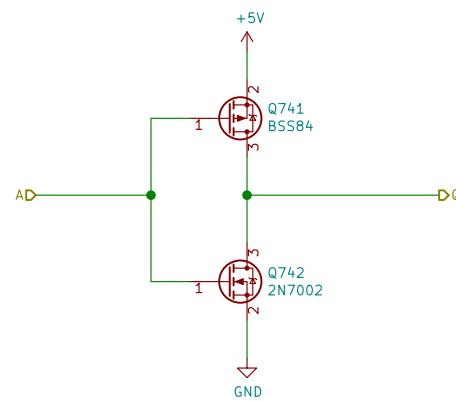
D

A

B

C

D

https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet606A7B7E/sheet606EA29F/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 261/398

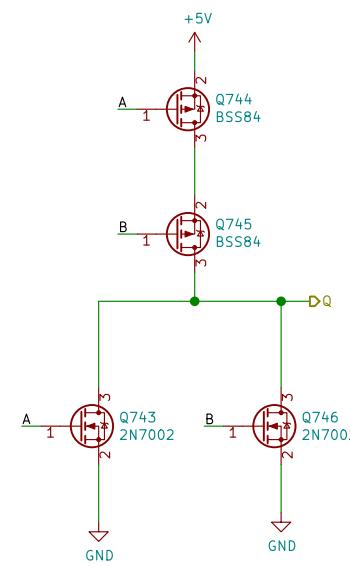
A

B

C

P

The diagram consists of two parallel horizontal green lines. The top line is labeled 'AD' at its left end and 'A' at its right end. The bottom line is labeled 'BD' at its left end and 'B' at its right end.



https://github.com/TheSchilk/Fets_and_Crosses

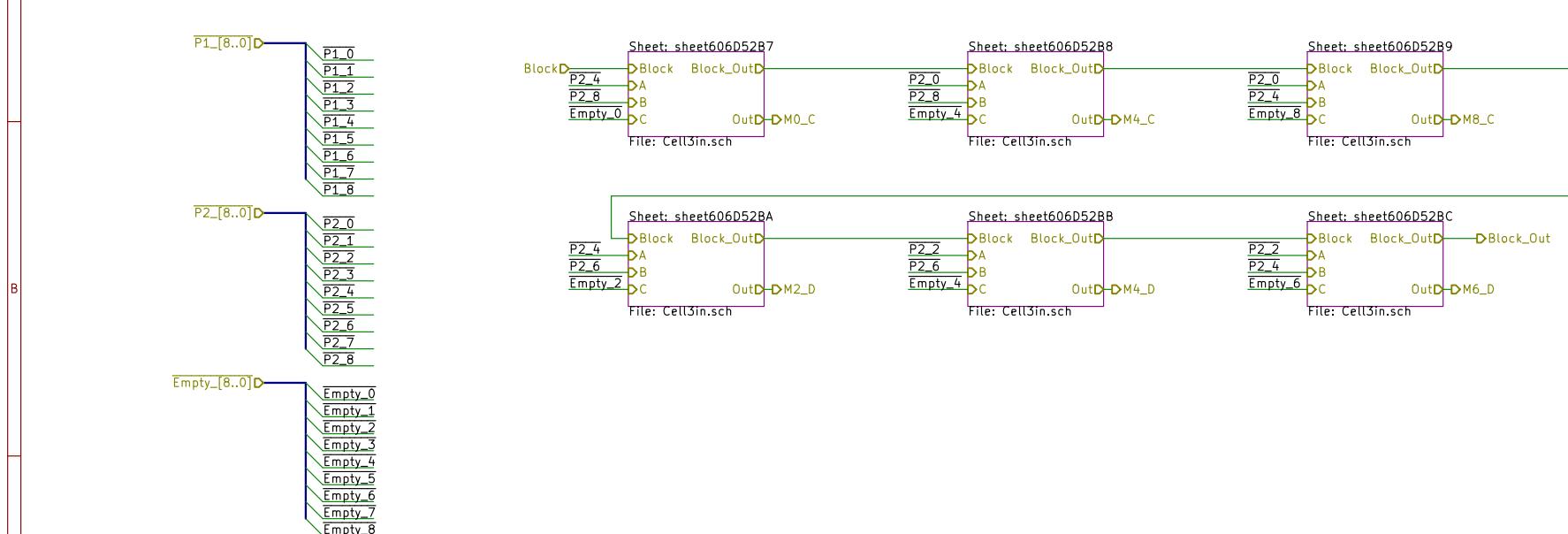
Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk
Sheet: /sheet606A7B7E/sheet606EA29F/sheet6054A98B/sheet5E562636/
File: Gato_NCP2in.sch

Title: Eets & Crosses Engine

Size: A4 Date: 2020-09-15
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 262 / 398



Philipp Schilk

Sheet: /sheet6058F8AB/
File: Engine_WIN_DIAG.sch

Title: Fets & Crosses Engine

Size: A4	Date:
KiCad E.D.A. kicad (5.1.9)-1	

Rev: v1.0
Id: 263/398

A

A

B

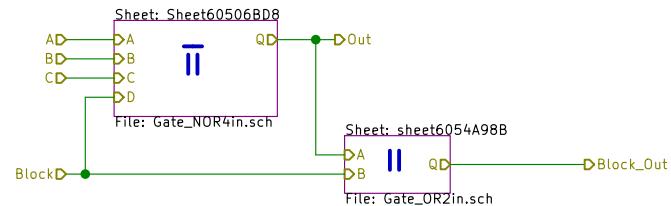
B

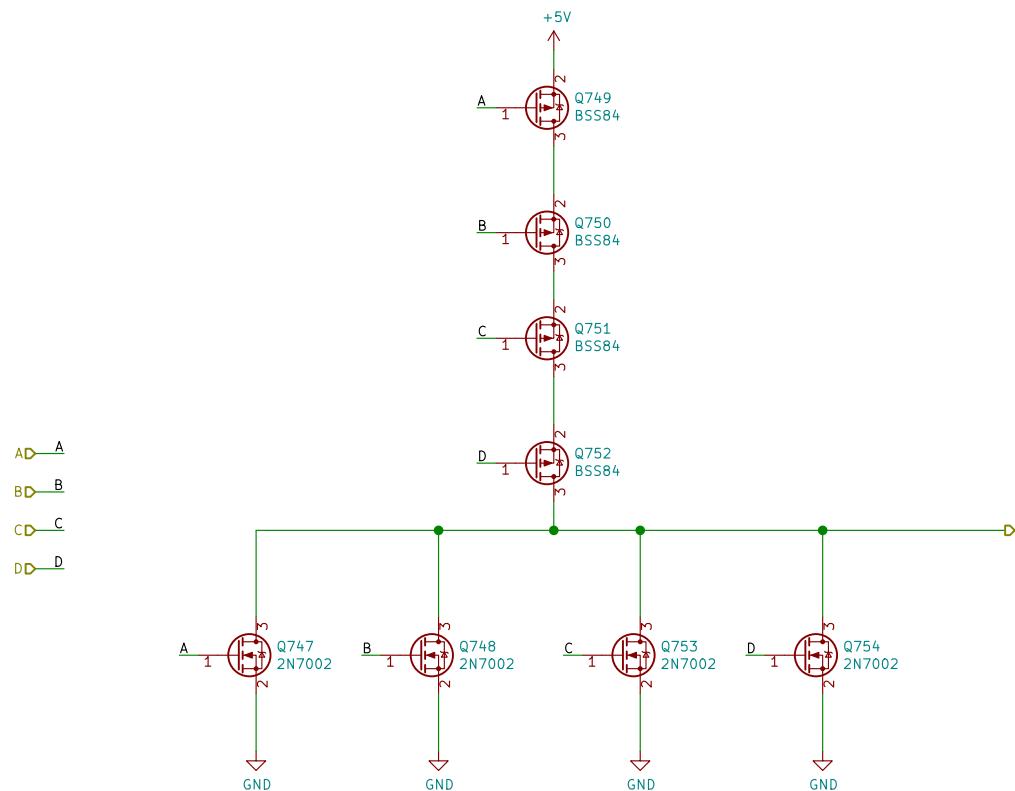
C

C

D

D

**Philipp Schilk**Sheet: /sheet6058F8AB/sheet606D52B7/
File: Cell3in.sch**Title: Fets & Crosses Engine**Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 264/398



Philipp Schilk

Sheet: /sheet6058F8AB/sheet606D52B7/Sheet60506BD8/
File: Gate_NOR4in.sch

Title: Fets & Crosses Engine

Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 265/398

A

A

B

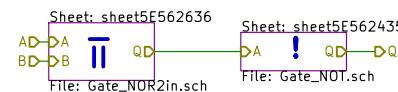
B

C

C

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D

https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet6058F8AB/sheet606D52B7/sheet6054A98B/

File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 266/398

A

B

C

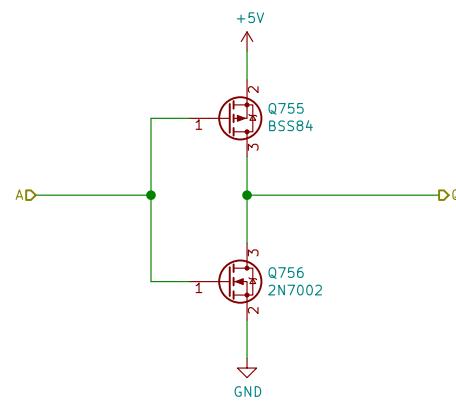
D

A

B

C

D

https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet6058F8AB/sheet606D52B7/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 267/398

A

A

B

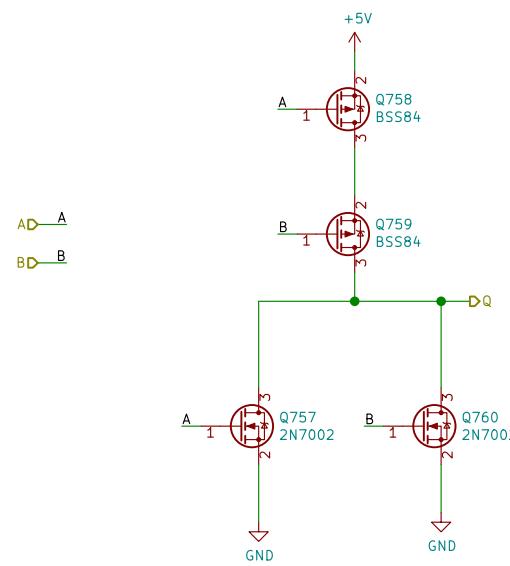
B

C

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D

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet6058F8AB/sheet606D52B7/sheet6054A98B/sheet5E562636/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 268/398

A

A

B

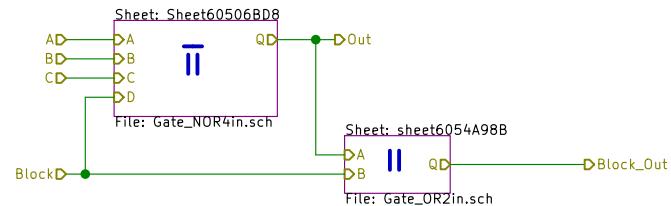
B

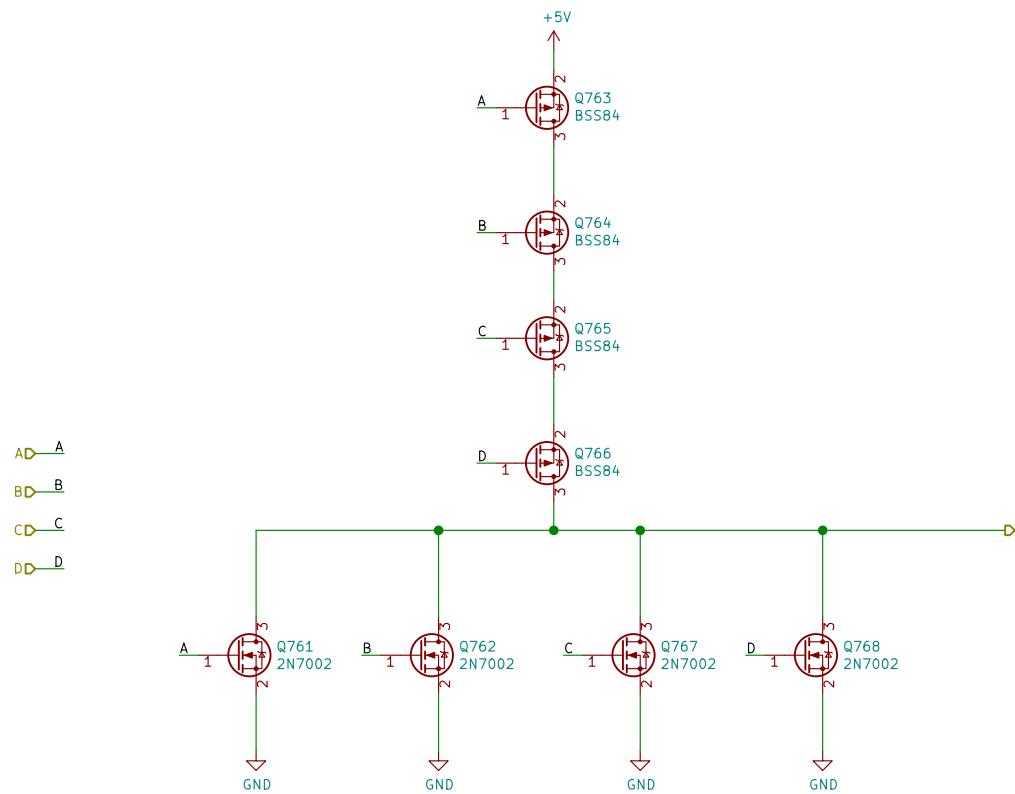
C

C

D

D

**Philipp Schilk**Sheet: /sheet6058F8AB/sheet606D52B8/
File: Cell3in.sch**Title: Fets & Crosses Engine**Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 269/398



Philipp Schilk

Sheet: /sheet6058F8AB/sheet606D52B8/Sheet60506BD8/
 File: Gate_NOR4in.sch

Title: Fets & Crosses Engine

Size: A4 Date:
 KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
 Id: 270/398

A

A

B

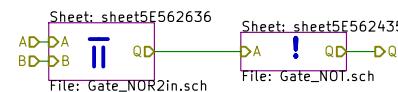
B

C

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet6058F8AB/sheet606D52B8/sheet6054A98B/

File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 271/398

A

B

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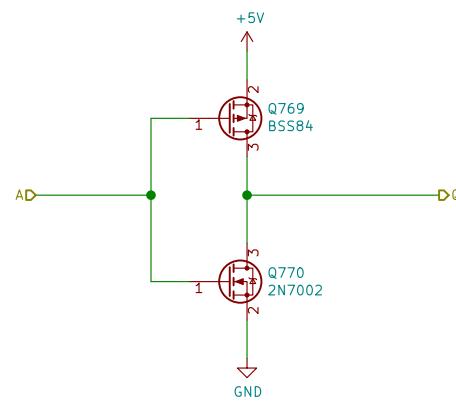
D

A

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet6058F8AB/sheet606D52B8/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 272/398

A

A

B

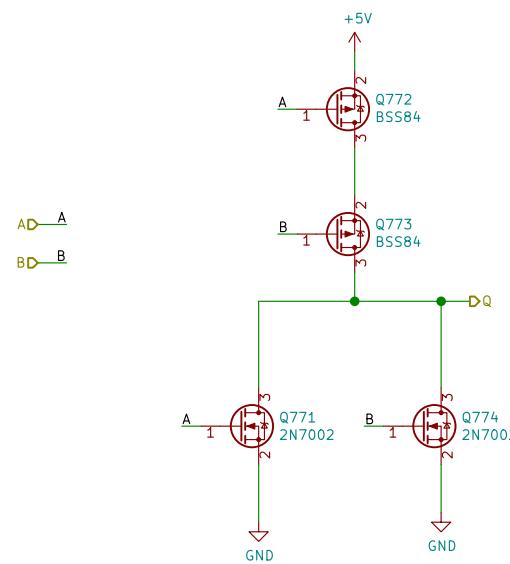
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet6058F8AB/sheet606D52B8/sheet6054A98B/sheet5E562636/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 273/398

A

A

B

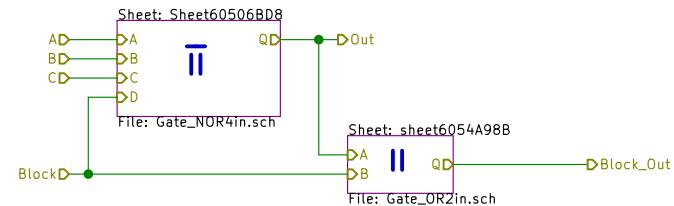
B

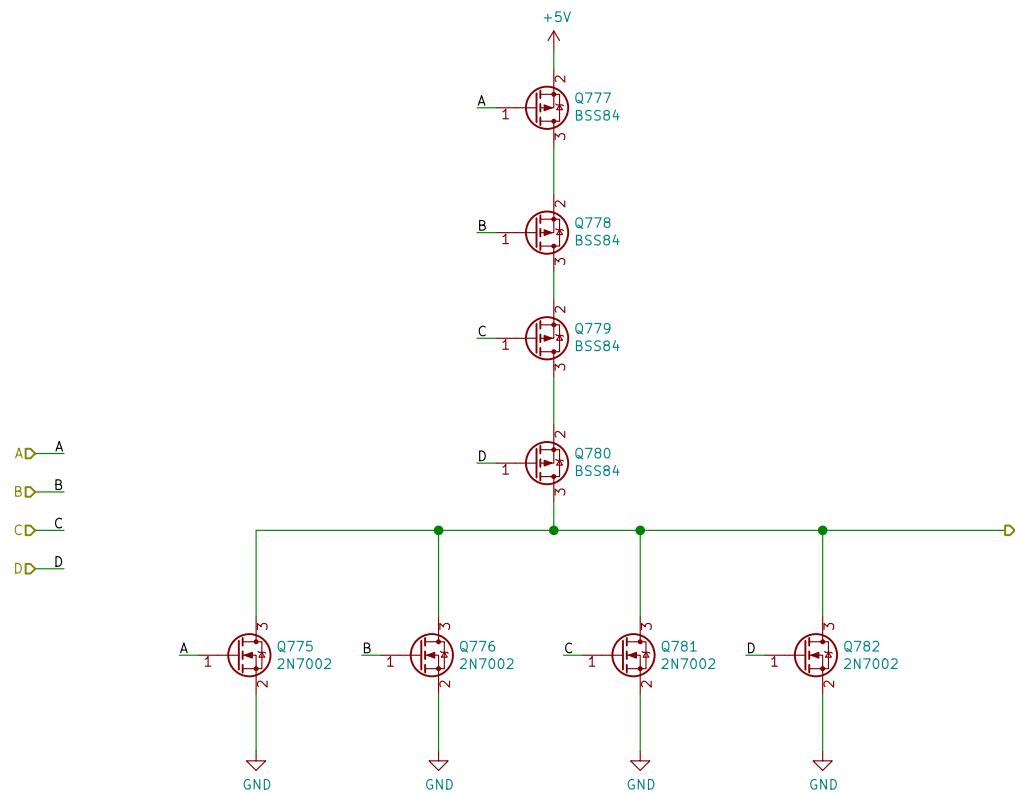
C

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**Philipp Schilk**Sheet: /sheet6058F8AB/sheet606D52B9/
File: Cell3in.sch**Title: Fets & Crosses Engine**Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 274/398



Philipp Schilk

Sheet: /sheet6058F8AB/sheet606D52B9/Sheet60506BD8/
File: Gate_NOR4in.sch

Title: Fets & Crosses Engine

Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 275/398

A

A

B

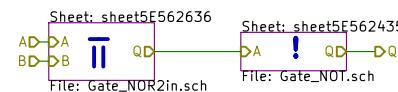
B

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D

https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp SchilkSheet: /sheet6058F8AB/sheet606D52B9/sheet6054A98B/
File: Gate_OR2in.sch**Title: Fets & Crosses Engine**Size: A4 Date: 2020-09-15
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 276/398

A

B

C

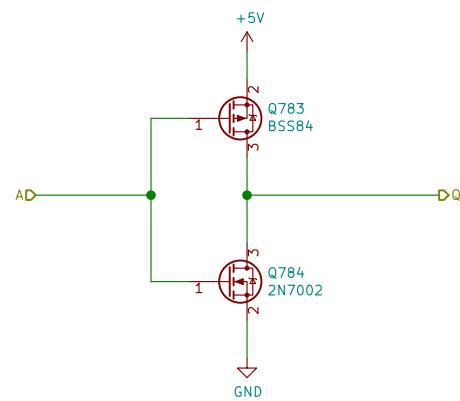
D

A

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C

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet6058F8AB/sheet606D52B9/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 277/398

A

A

B

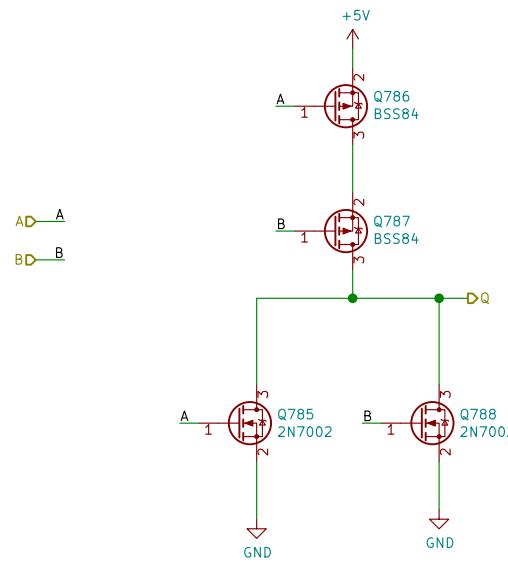
B

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet6058F8AB/sheet606D52B9/sheet6054A98B/sheet5E562636/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 278/398

A

A

B

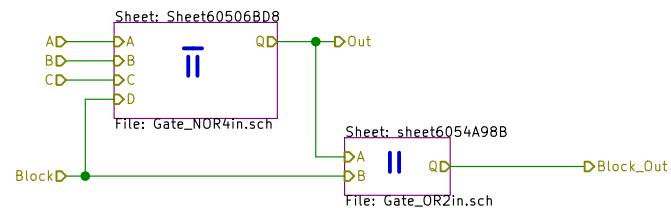
B

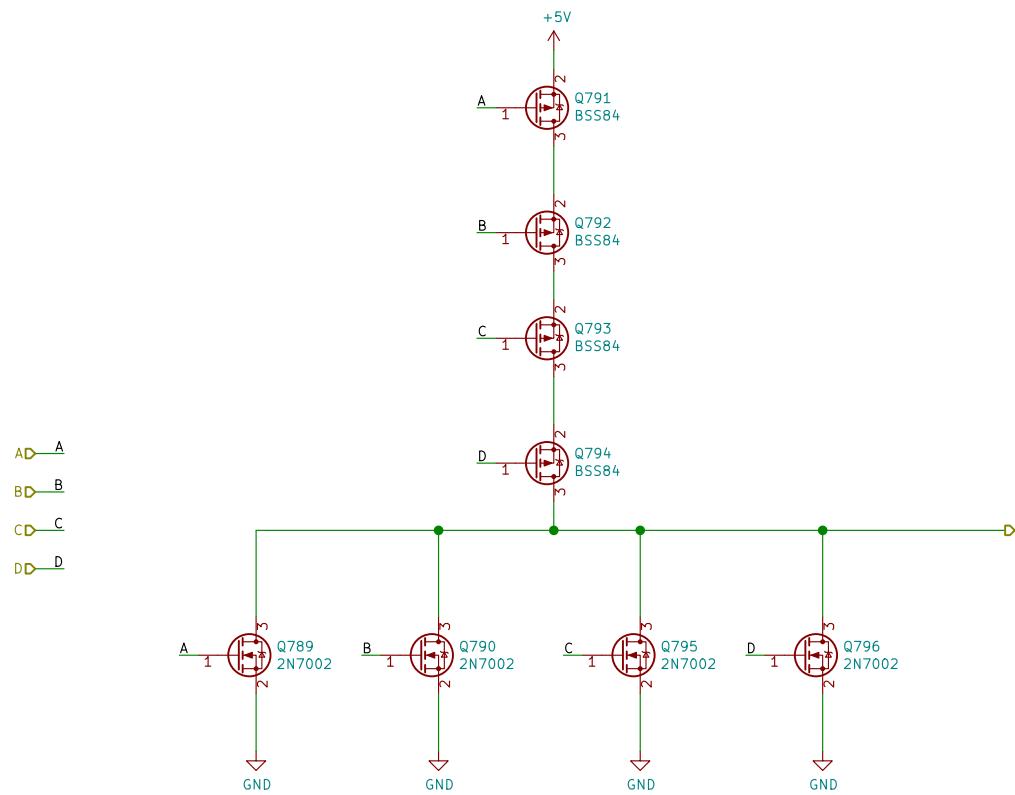
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C

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D

**Philipp Schilk**Sheet: /sheet6058F8AB/sheet606D52BA/
File: Cell3in.sch**Title: Fets & Crosses Engine**Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 279/398



Philipp Schilk

Sheet: /sheet6058F8AB/sheet606D52BA/Sheet60506BD8/
File: Gate_NOR4in.sch

Title: Fets & Crosses Engine

Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 280/398

A

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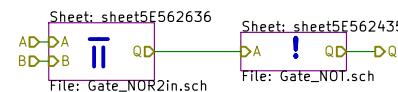
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic
Philipp Schilk
Sheet: /sheet6058F8AB/sheet606D52BA/sheet6054A98B/
File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 281/398

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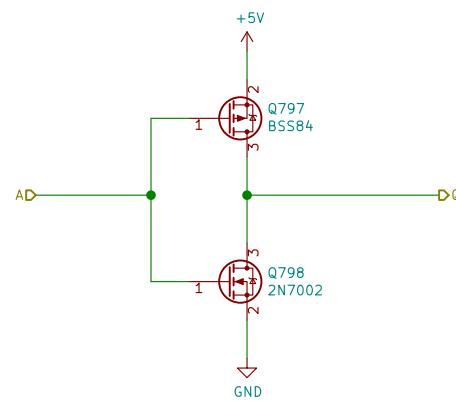
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet6058F8AB/sheet606D52BA/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 282/398

A

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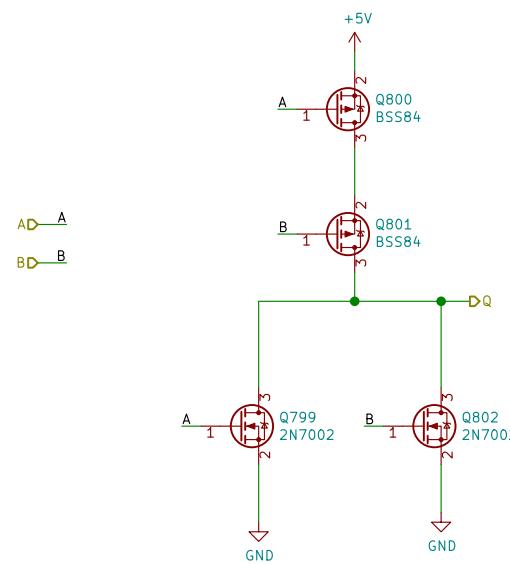
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet6058F8AB/sheet606D52BA/sheet6054A98B/sheet5E562636/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 283/398

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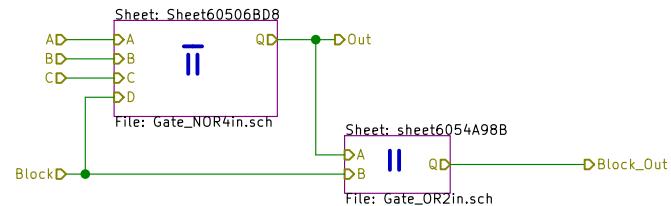
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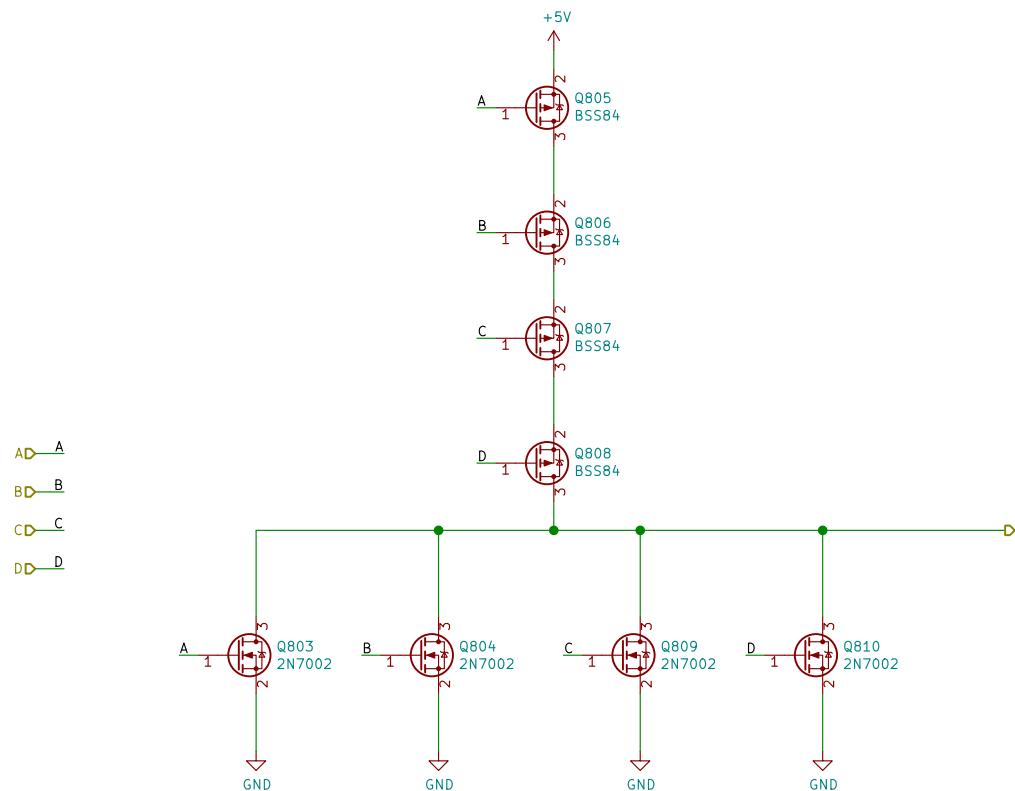
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**Philipp Schilk**Sheet: /sheet6058F8AB/sheet606D52BB/
File: Cell3in.sch**Title: Fets & Crosses Engine**Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 284/398



Philipp Schilk

Sheet: /sheet6058F8AB/sheet606D52BB/Sheet60506BD8/
File: Gate_NOR4in.sch

Title: Fets & Crosses Engine

Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 285/398

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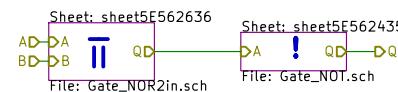
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic
Philipp Schilk
Sheet: /sheet6058F8AB/sheet606D52BB/sheet6054A98B/
File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 286/398

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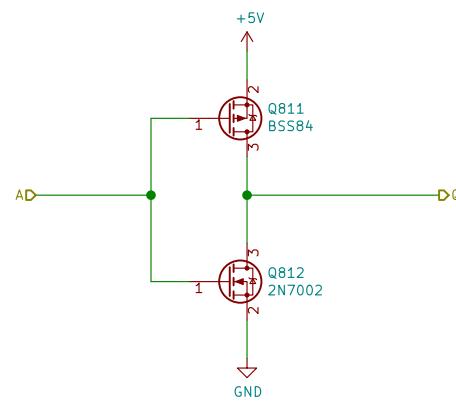
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet6058F8AB/sheet606D52BB/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 287/398

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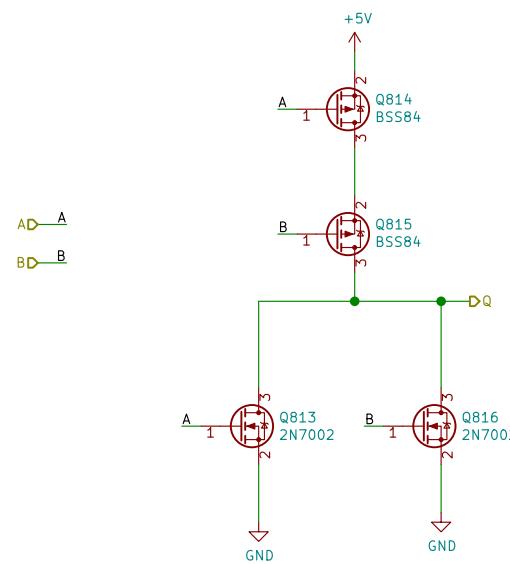
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet6058F8AB/sheet606D52BB/sheet6054A98B/sheet5E562636/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 288/398

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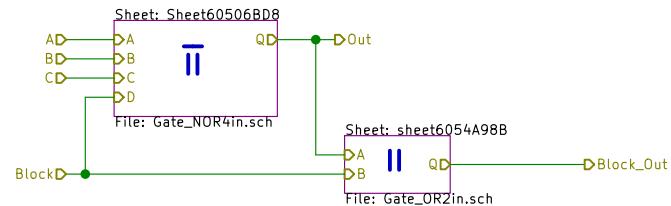
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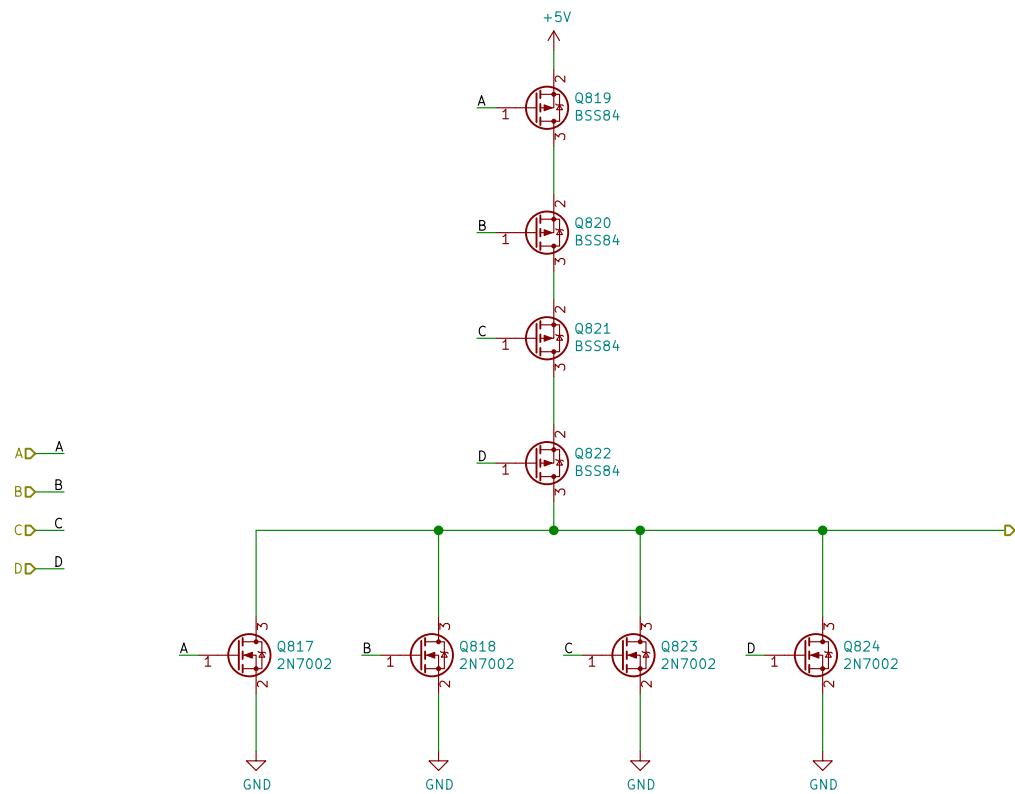
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**Philipp Schilk**Sheet: /sheet6058F8AB/sheet606D52BC/
File: Cell3in.sch**Title: Fets & Crosses Engine**Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 289/398



Philipp Schilk

Sheet: /sheet6058F8AB/sheet606D52BC/Sheet60506BD8/
File: Gate_NOR4in.sch

Title: Fets & Crosses Engine

Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 290/398

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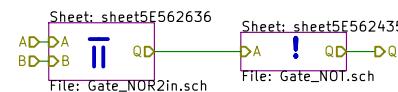
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp SchilkSheet: /sheet6058F8AB/sheet606D52BC/sheet6054A98B/
File: Gate_OR2in.sch**Title: Fets & Crosses Engine**Size: A4 Date: 2020-09-15
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 291/398

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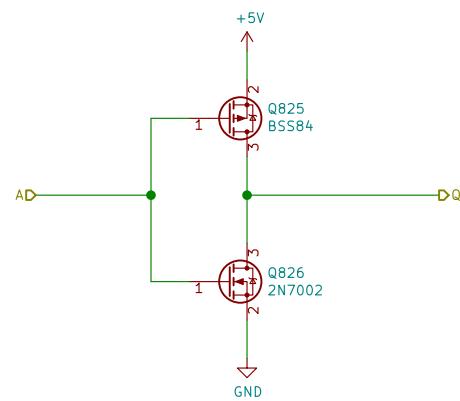
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet6058F8AB/sheet606D52BC/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 292/398

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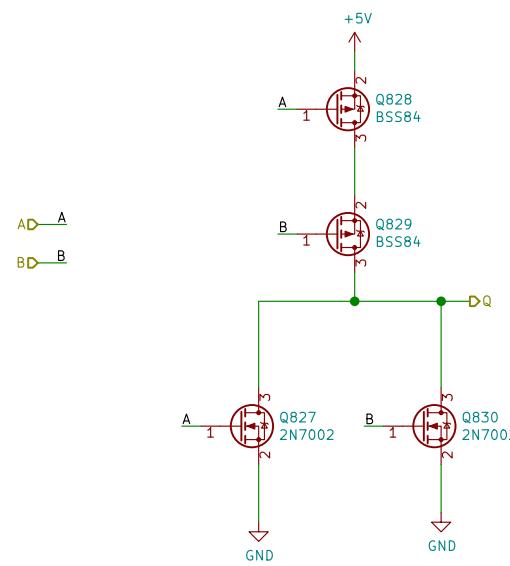
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

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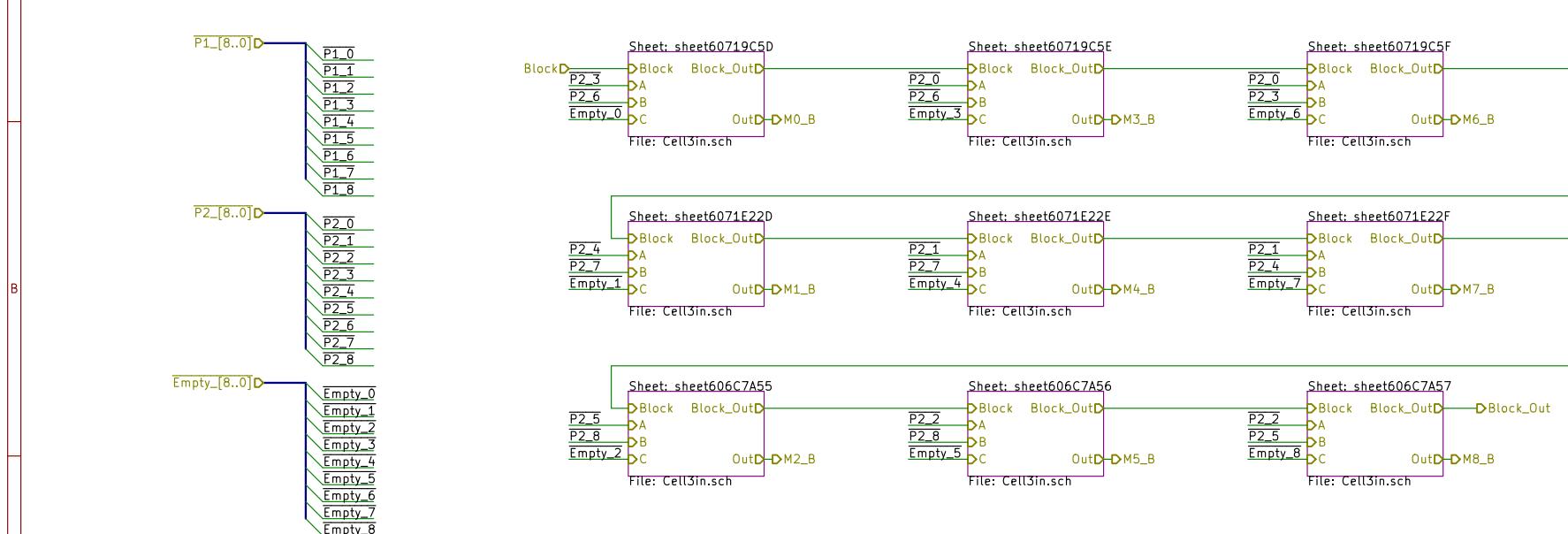
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Size: A4 Date: 2020-09-15

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Rev: v1.0

Id: 293/398



Philipp Schilk

Sheet: /sheet6055E6A3/
File: Engine_WIN_COL.sch

Title: Fets & Crosses Engine

Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 294/398

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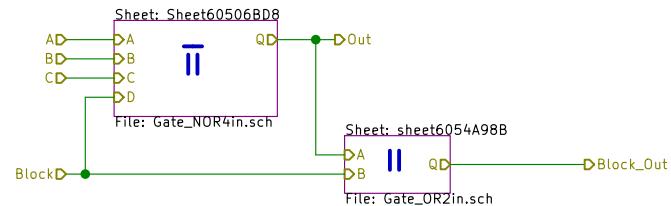
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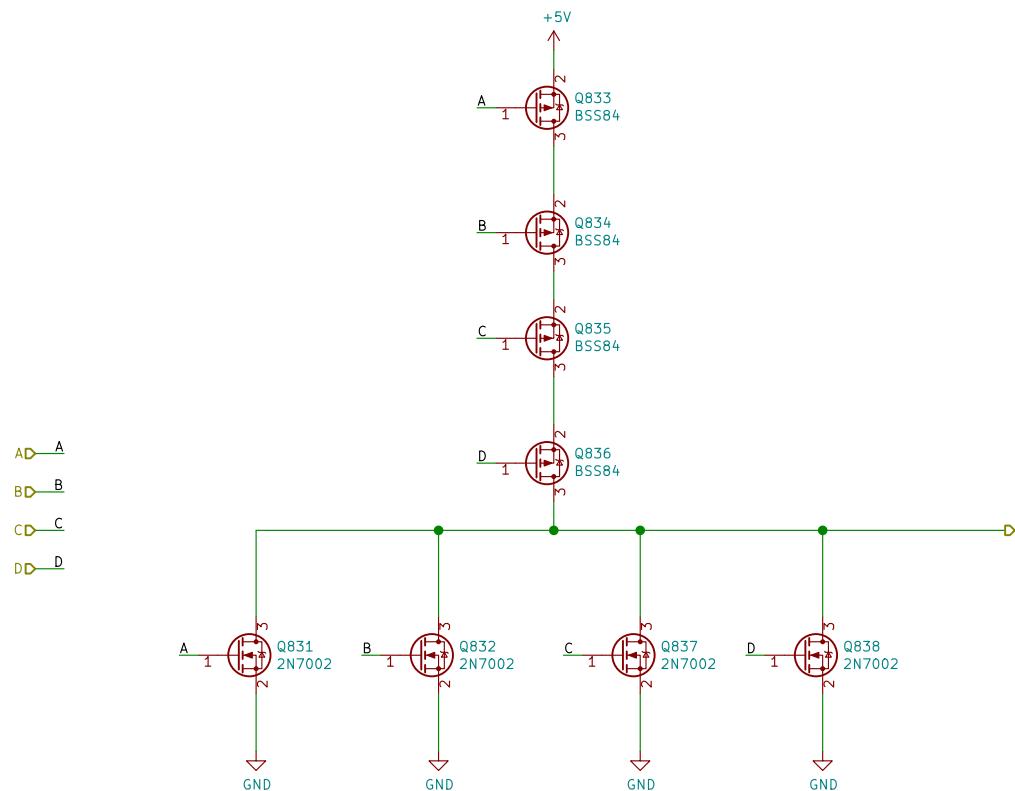
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**Philipp Schilk**Sheet: /sheet6055E6A3/sheet60719C5D/
File: Cell3in.sch**Title: Fets & Crosses Engine**Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 295/398



Philipp Schilk

Sheet: /sheet6055E6A3/sheet60719C5D/Sheet60506BD8/
File: Gate_NOR4in.sch

Title: Fets & Crosses Engine

Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 296/398

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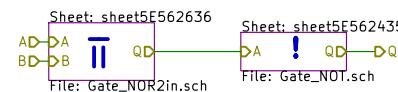
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet6055E6A3/sheet60719C5D/sheet6054A98B/

File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 297/398

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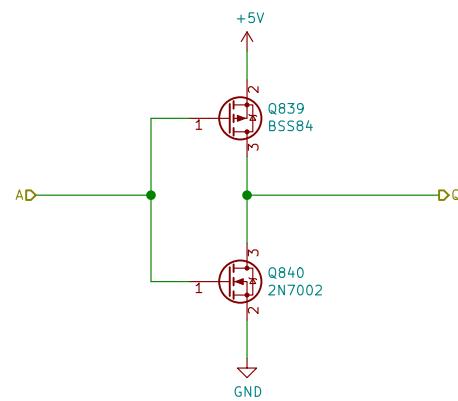
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet6055E6A3/sheet60719C5D/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 298/398

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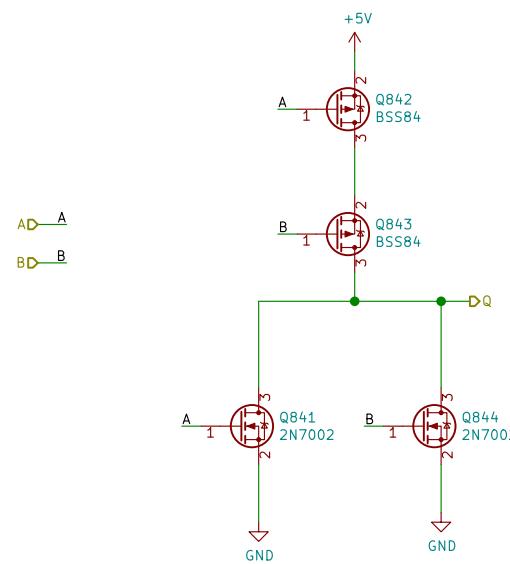
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet6055E6A3/sheet60719C5D/sheet6054A98B/sheet5E562636/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 299/398

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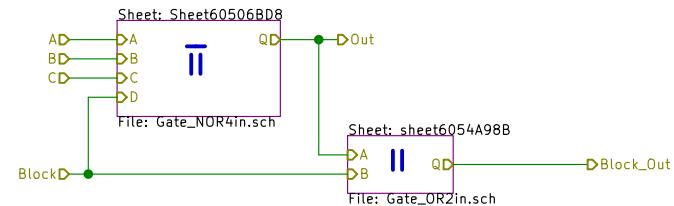
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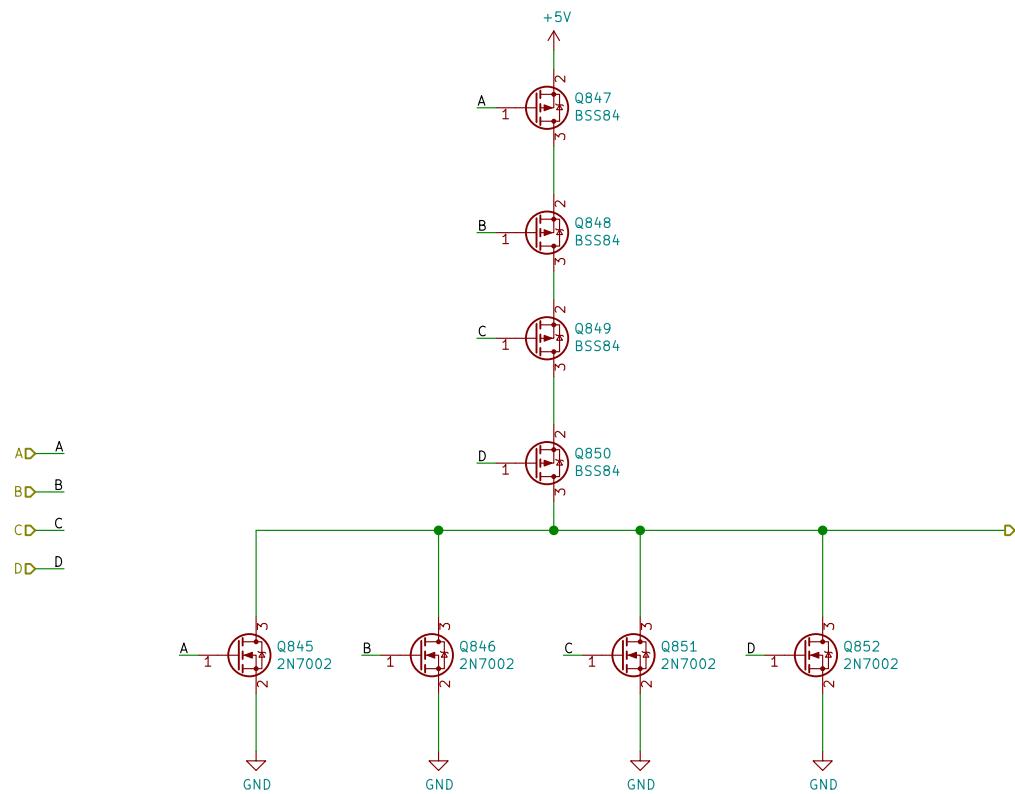
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Id: 300/398



Philipp Schilk

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File: Gate_NOR4in.sch

Title: Fets & Crosses Engine

Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 301/398

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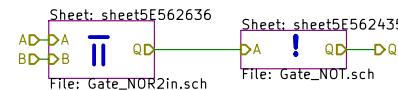
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet6055E6A3/sheet60719C5E/sheet6054A98B/

File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 302/398

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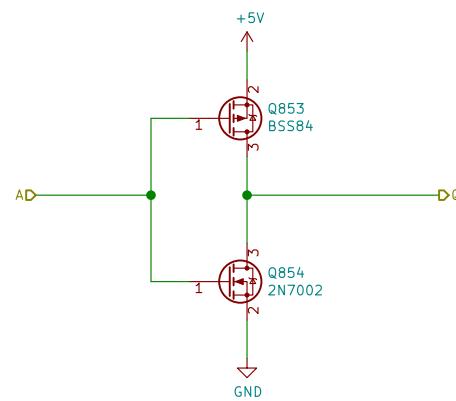
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet6055E6A3/sheet60719C5E/sheet6054A98B/sheet5E562435/

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Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

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Rev: v1.0

Id: 303/398

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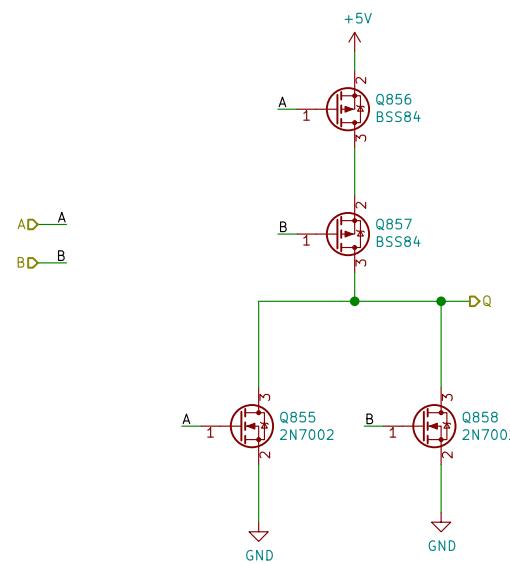
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet6055E6A3/sheet60719C5E/sheet6054A98B/sheet5E562636/

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Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

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Rev: v1.0

Id: 304/398

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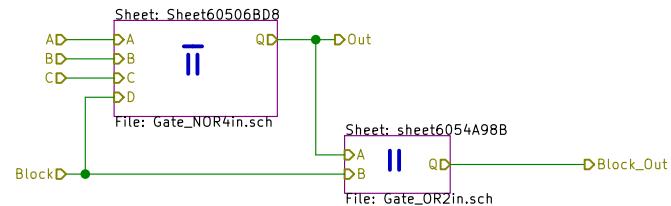
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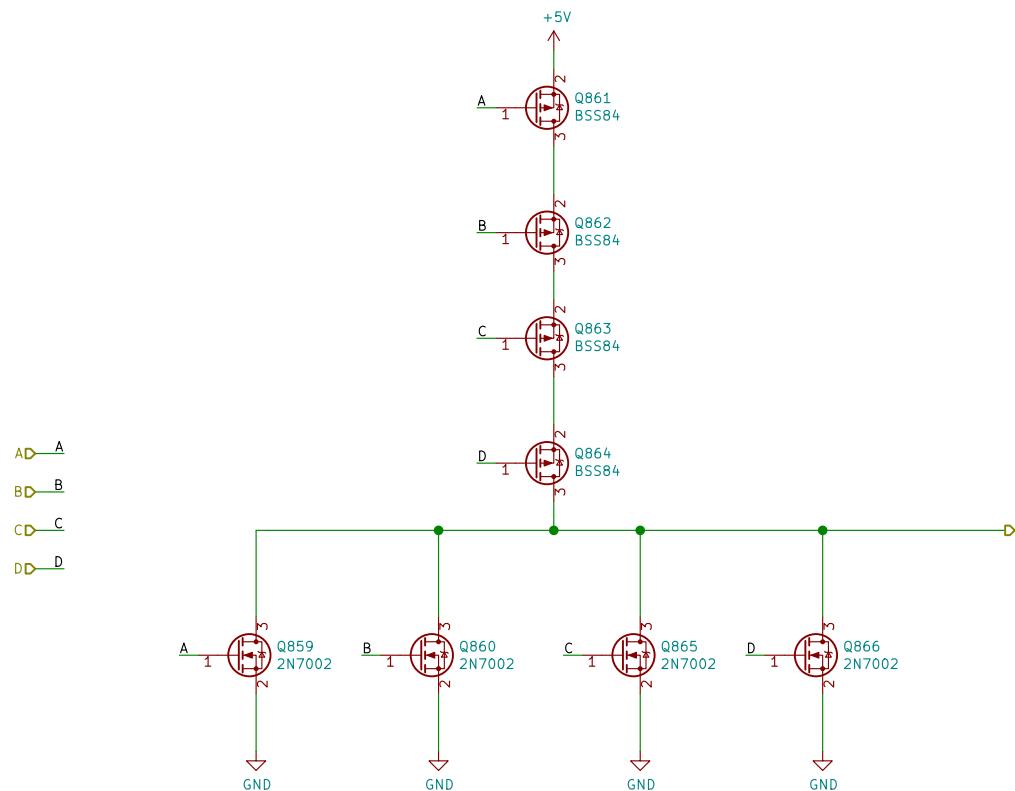
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KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 305/398



Philipp Schilk

Sheet: /sheet6055E6A3/sheet60719C5F/Sheet60506BD8/
File: Gate_NOR4in.sch

Title: Fets & Crosses Engine

Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 306/398

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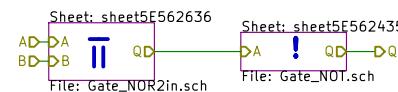
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet6055E6A3/sheet60719C5F/sheet6054A98B/

File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 307/398

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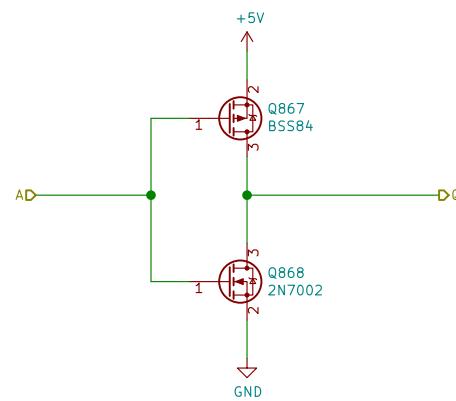
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet6055E6A3/sheet60719C5F/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 308/398

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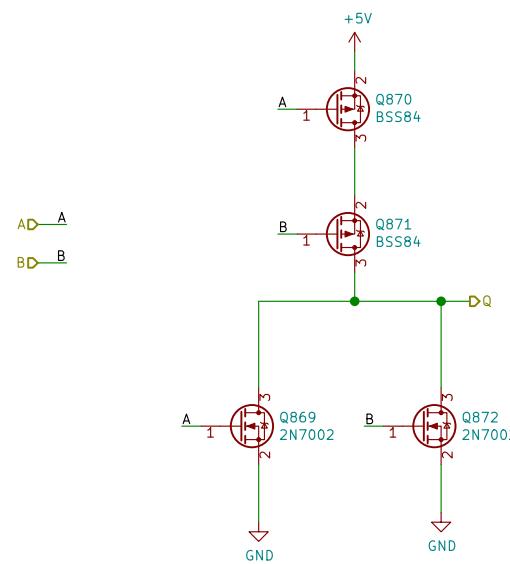
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

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Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 309/398

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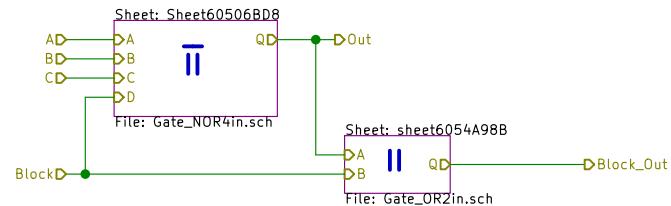
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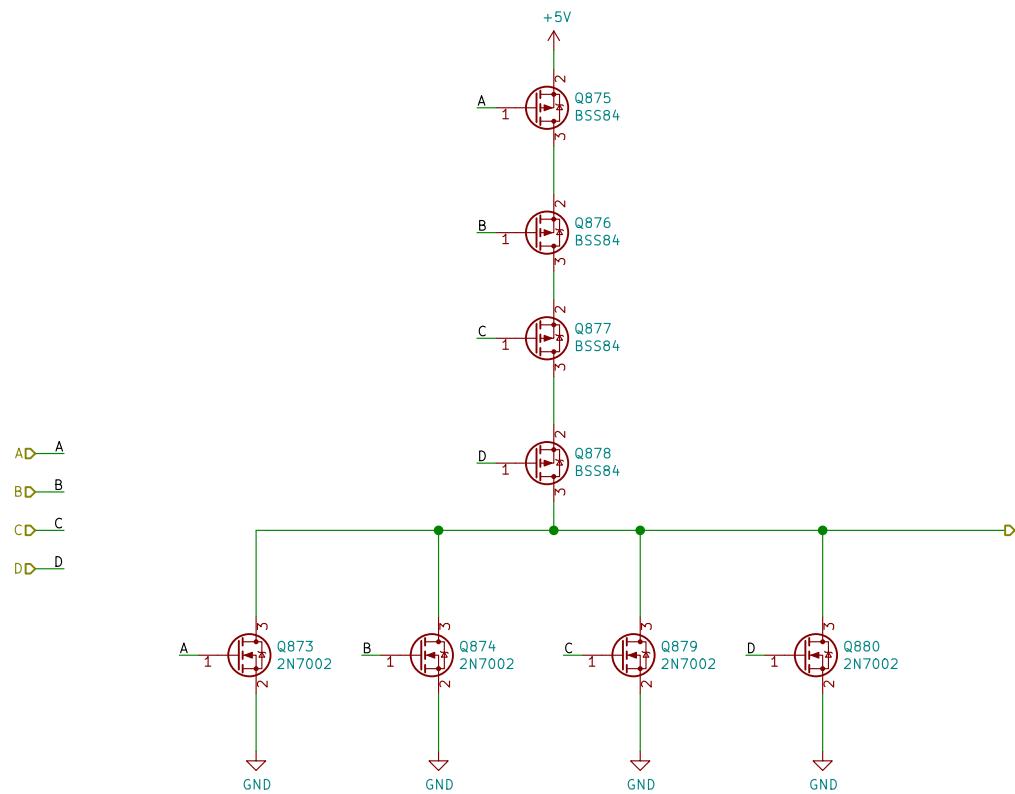
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KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 310/398



Philipp Schilk

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File: Gate_NOR4in.sch

Title: Fets & Crosses Engine

Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 311/398

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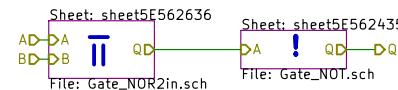
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Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet6055E6A3/sheet6071E22D/sheet6054A98B/

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Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 312/398

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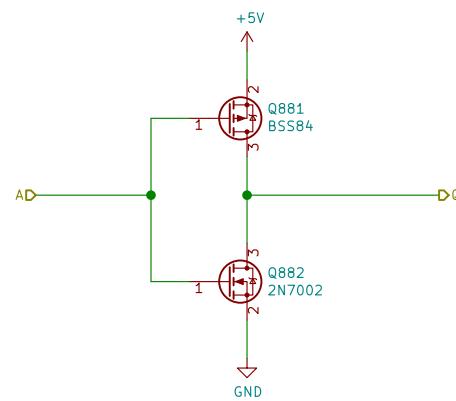
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet6055E6A3/sheet6071E22D/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 313/398

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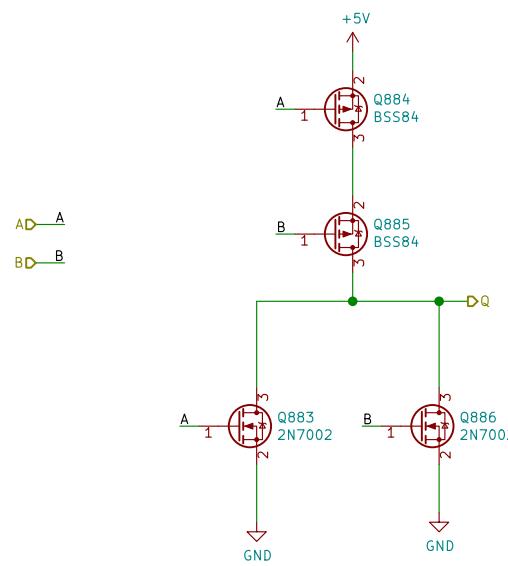
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

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Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 314/398

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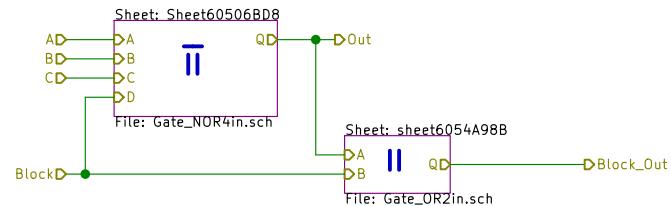
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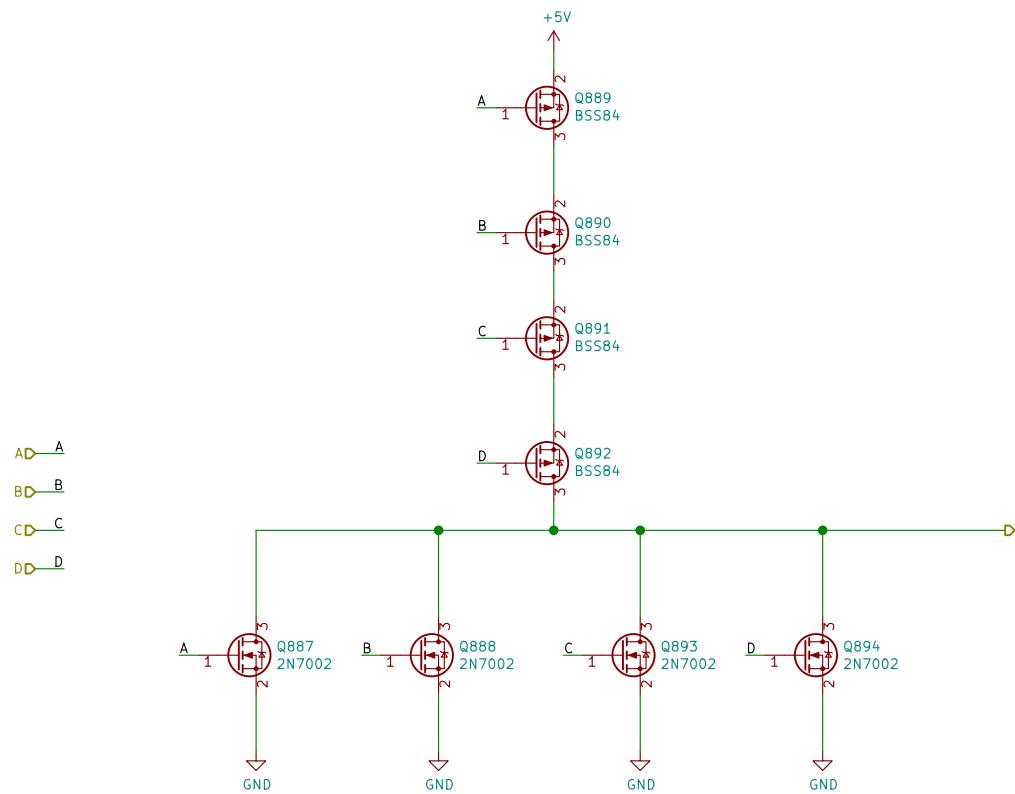
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**Philipp Schilk**Sheet: /sheet6055E6A3/sheet6071E22E/
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KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 315/398



Philipp Schilk

Sheet: /sheet6055E6A3/sheet6071E22E/Sheet60506BD8/
File: Gate_NOR4in.sch

Title: Fets & Crosses Engine

Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 316/398

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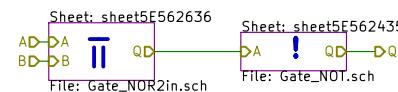
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet6055E6A3/sheet6071E22E/sheet6054A98B/

File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 317/398

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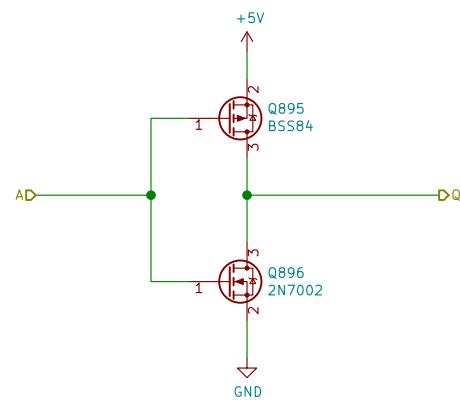
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet6055E6A3/sheet6071E22E/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 318/398

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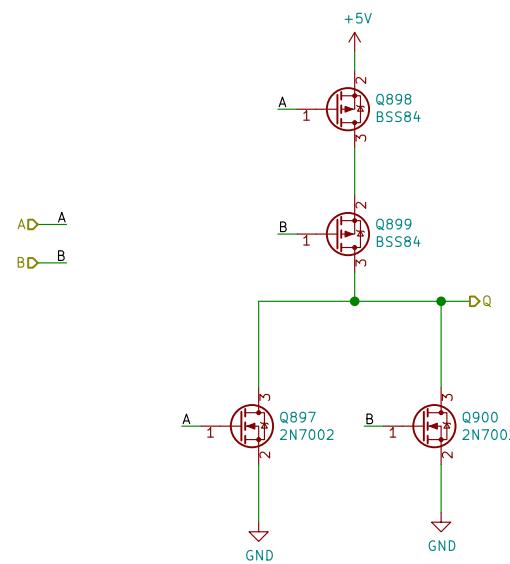
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet6055E6A3/sheet6071E22E/sheet6054A98B/sheet5E562636/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 319/398

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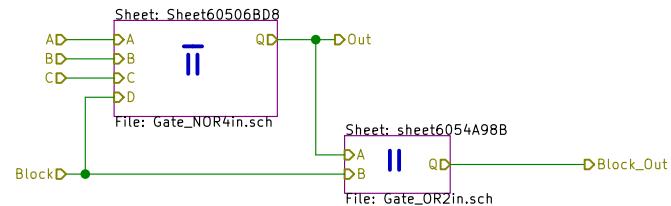
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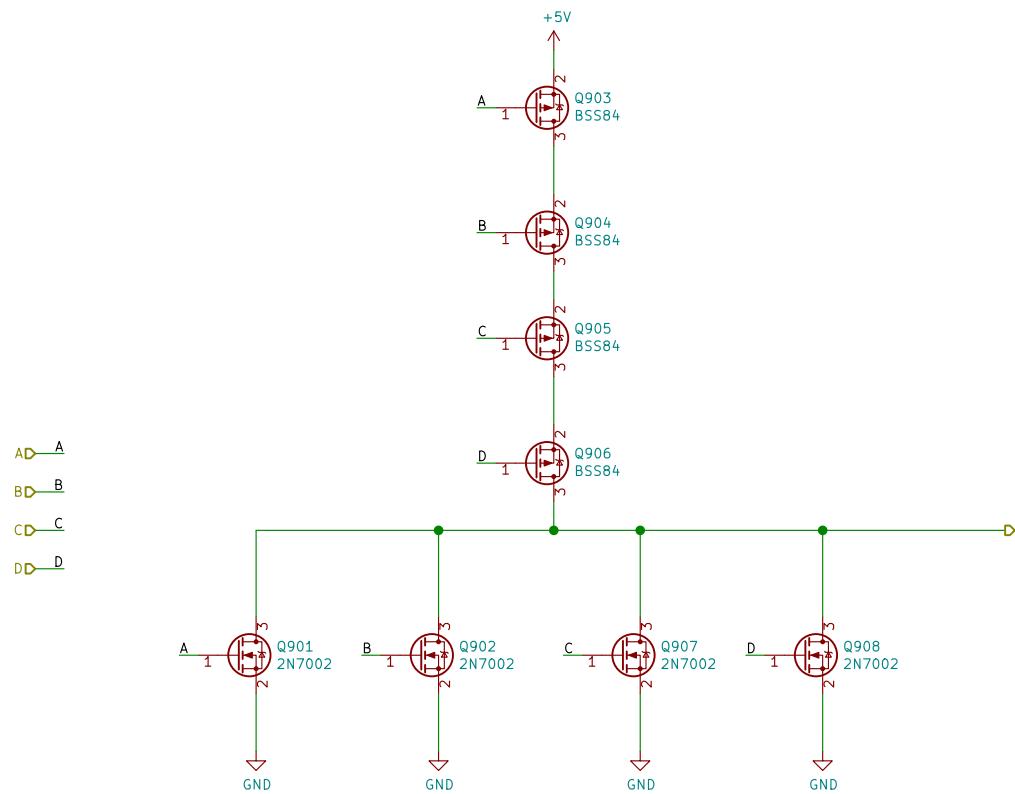
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**Philipp Schilk**Sheet: /sheet6055E6A3/sheet6071E22F/
File: Cell3in.sch**Title: Fets & Crosses Engine**Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 320/398



Philipp Schilk

Sheet: /sheet6055E6A3/sheet6071E22F/Sheet60506BD8/
File: Gate_NOR4in.sch

Title: Fets & Crosses Engine

Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 321/398

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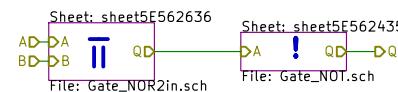
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet6055E6A3/sheet6071E22F/sheet6054A98B/

File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 322/398

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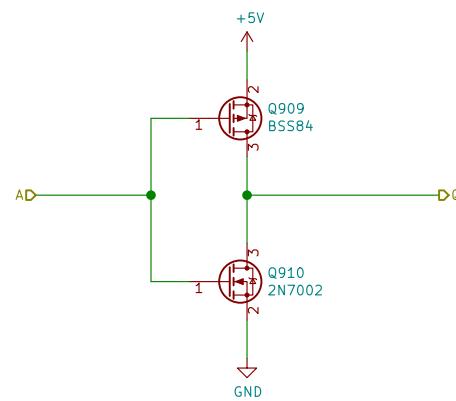
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet6055E6A3/sheet6071E22F/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 323/398

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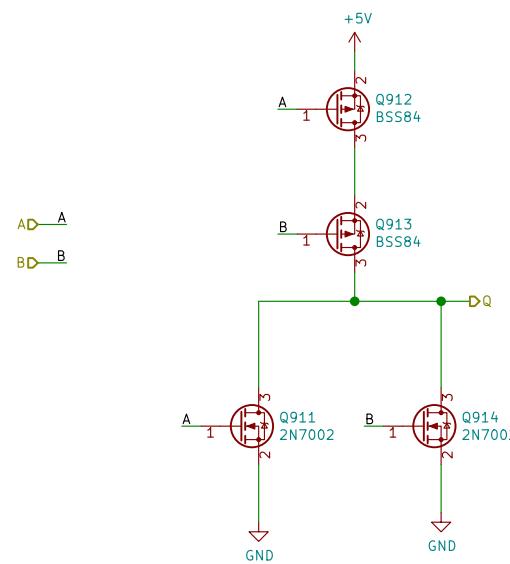
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet6055E6A3/sheet6071E22F/sheet6054A98B/sheet5E562636/
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Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 324/398

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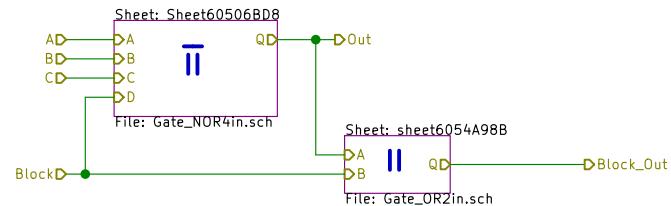
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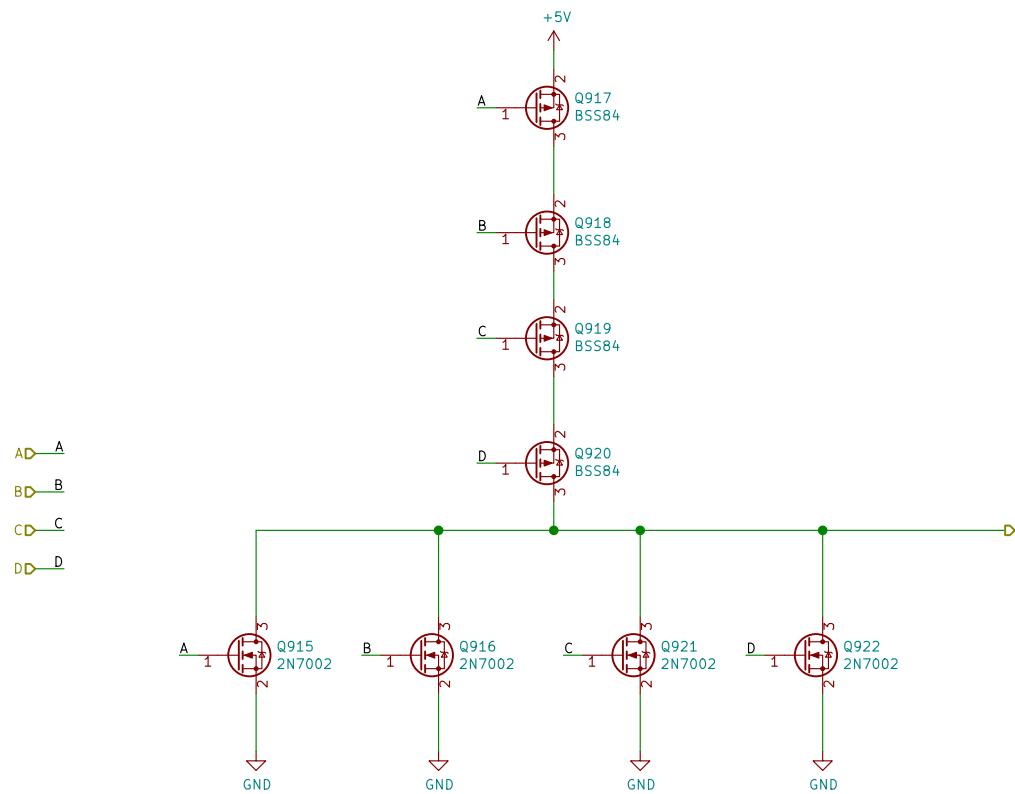
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File: Cell3in.sch**Title: Fets & Crosses Engine**Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 325/398



Philipp Schilk

Sheet: /sheet6055E6A3/sheet606C7A55/Sheet60506BD8/
File: Gate_NOR4in.sch

Title: Fets & Crosses Engine

Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 326/398

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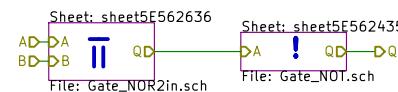
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic
Philipp Schilk
 Sheet: /sheet6055E6A3/sheet606C7A55/sheet6054A98B/
 File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 327/398

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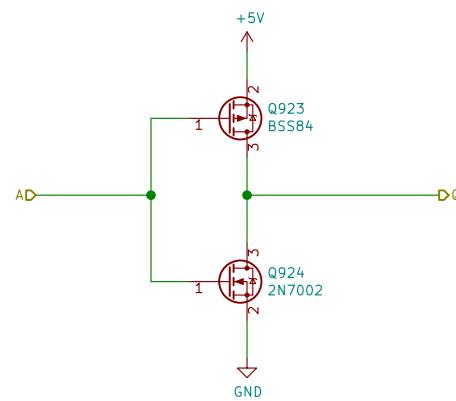
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet6055E6A3/sheet606C7A55/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 328/398

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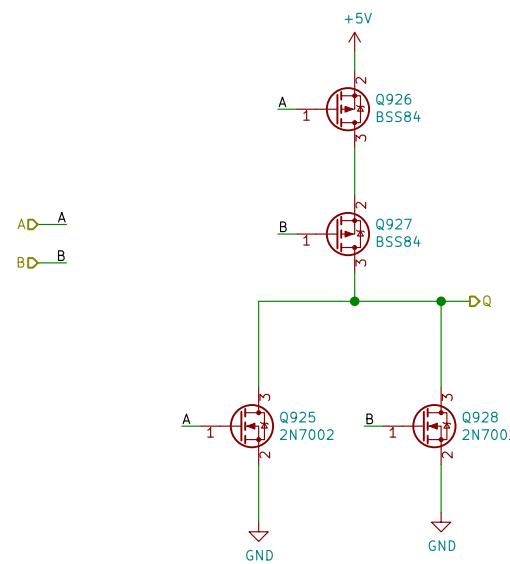
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet6055E6A3/sheet606C7A55/sheet6054A98B/sheet5E562636/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 329/398

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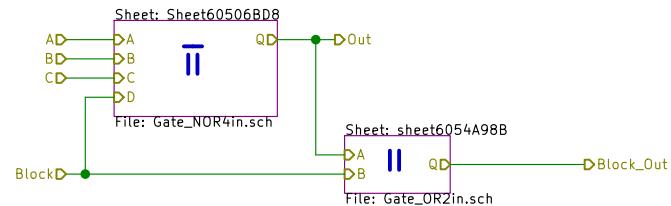
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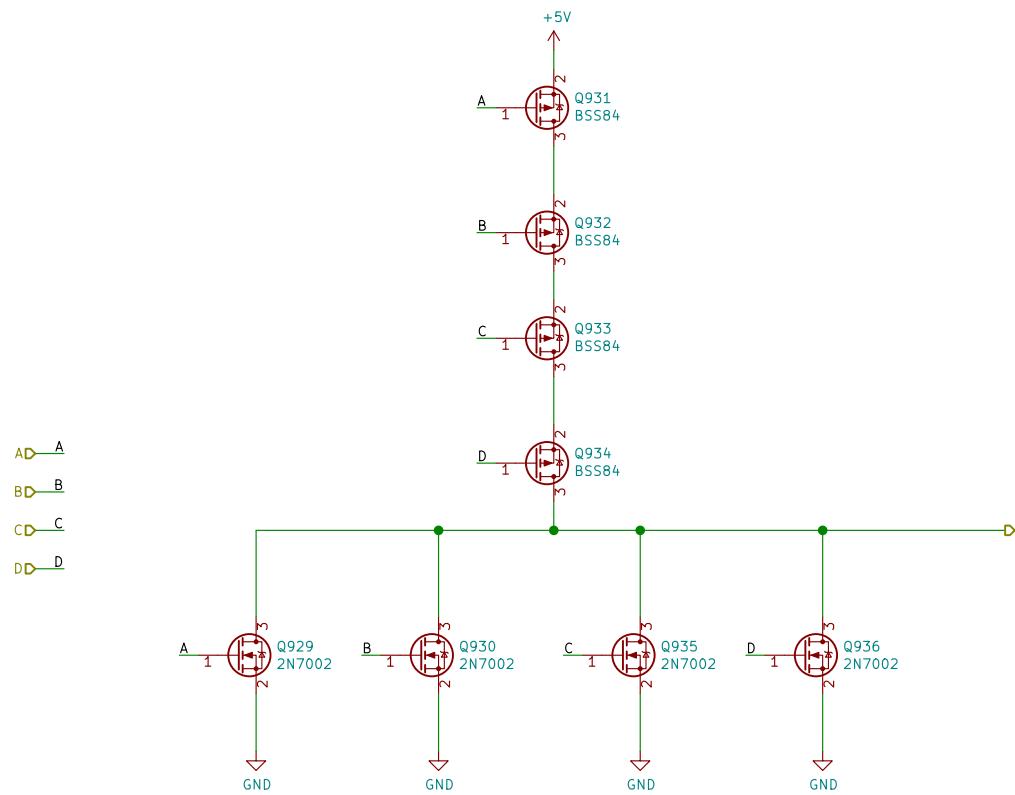
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File: Cell3in.sch**Title: Fets & Crosses Engine**Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 330/398



Philipp Schilk

Sheet: /sheet6055E6A3/sheet606C7A56/Sheet60506BD8/
File: Gate_NOR4in.sch

Title: Fets & Crosses Engine

Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 331/398

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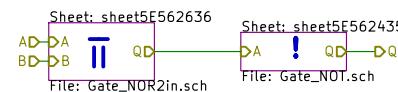
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet6055E6A3/sheet606C7A56/sheet6054A98B/

File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 332/398

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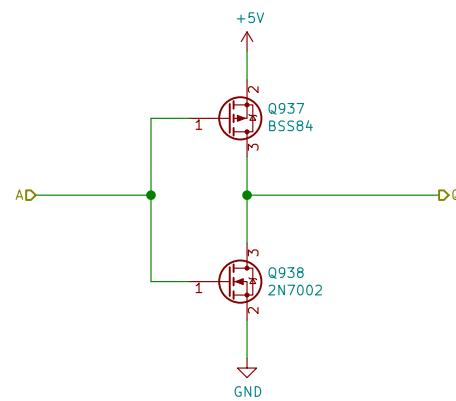
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet6055E6A3/sheet606C7A56/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 333/398

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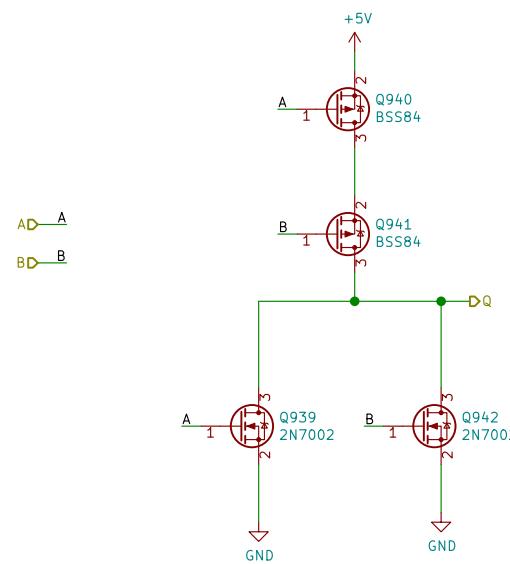
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet6055E6A3/sheet606C7A56/sheet6054A98B/sheet5E562636/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 334/398

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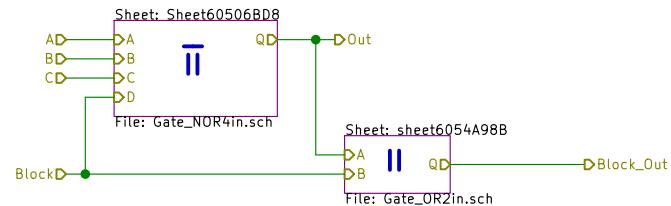
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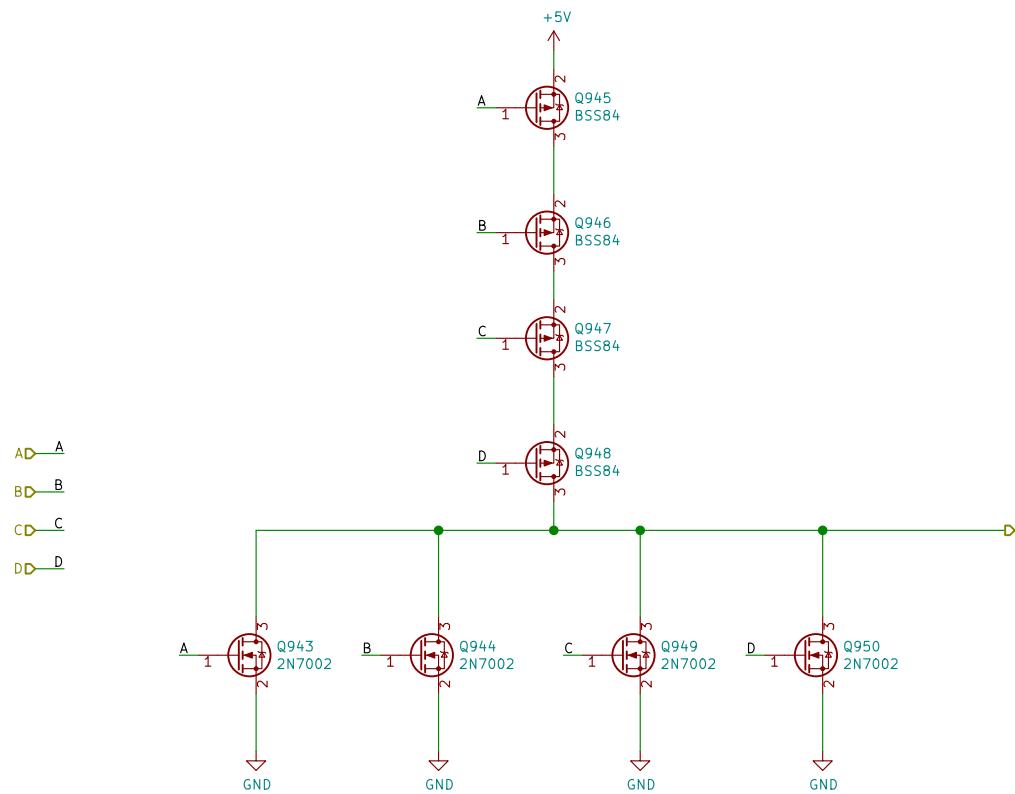
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KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 335/398



Philipp Schilk

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Title: Fets & Crosses Engine

Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 336/398

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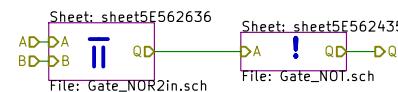
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet6055E6A3/sheet606C7A57/sheet6054A98B/

File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 337/398

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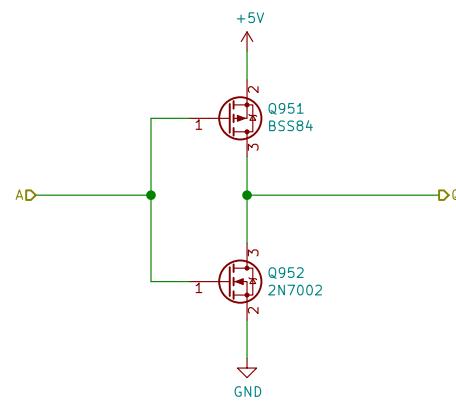
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet6055E6A3/sheet606C7A57/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 338/398

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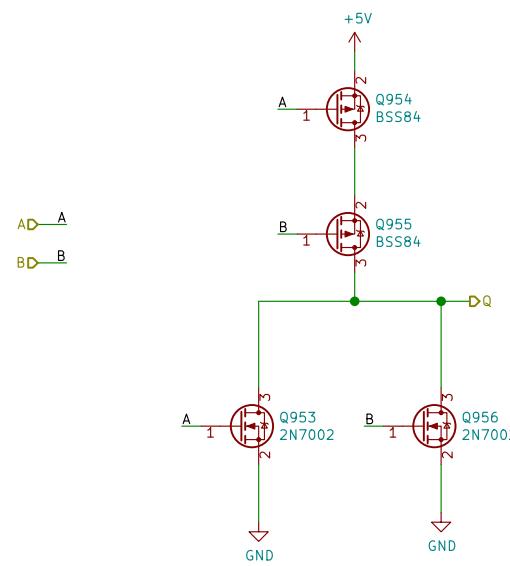
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

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File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

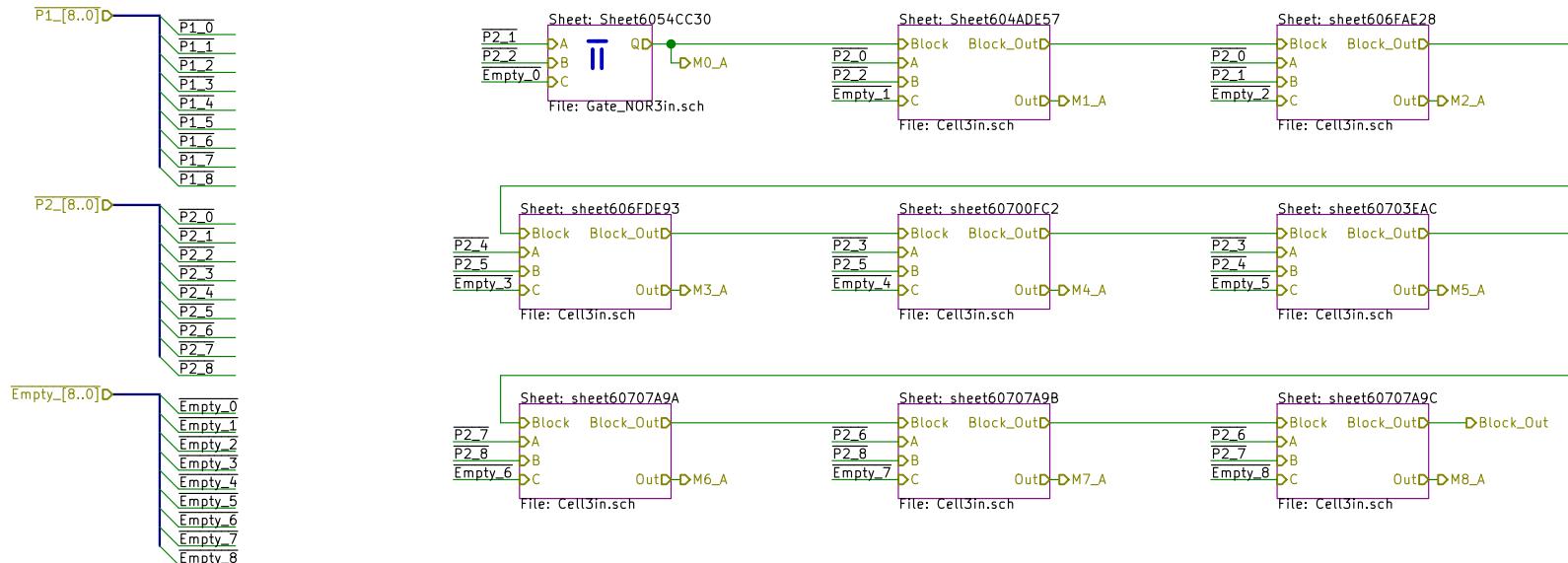
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Rev: v1.0

Id: 339/398

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Philipp Schilk

Sheet: /Sheet60494411/
File: Engine_WIN_ROW.sch

Title: Fets & Crosses Engine

Size: A4	Date:
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Id: 340/398

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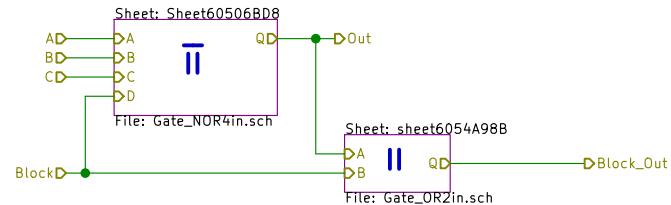
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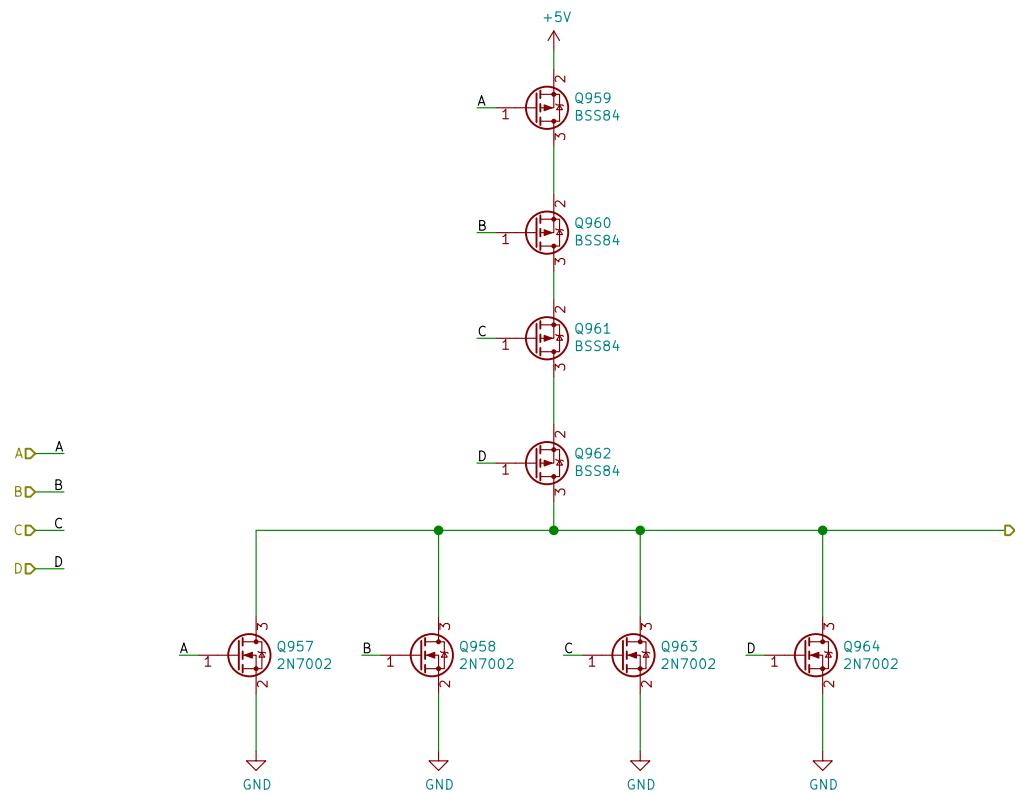
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**Philipp Schilk**

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File: Cell3in.sch

Title: Fets & Crosses EngineSize: A4 Date:
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Id: 341/398



Philipp Schilk

Sheet: /Sheet60494411/Sheet604ADE57/Sheet60506BD8/
File: Gate_NOR4in.sch

Title: Fets & Crosses Engine

Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 342/398

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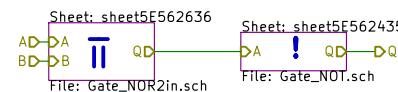
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet60494411/Sheet604ADE57/sheet6054A98B/

File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 343/398

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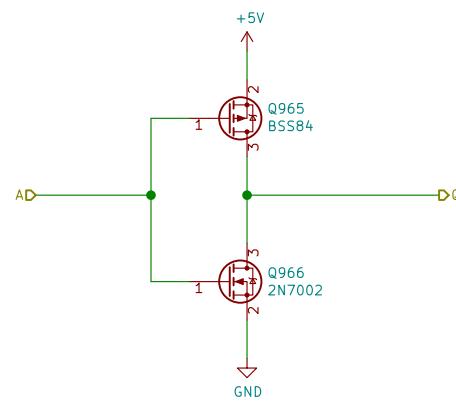
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet60494411/Sheet604ADE57/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 344/398

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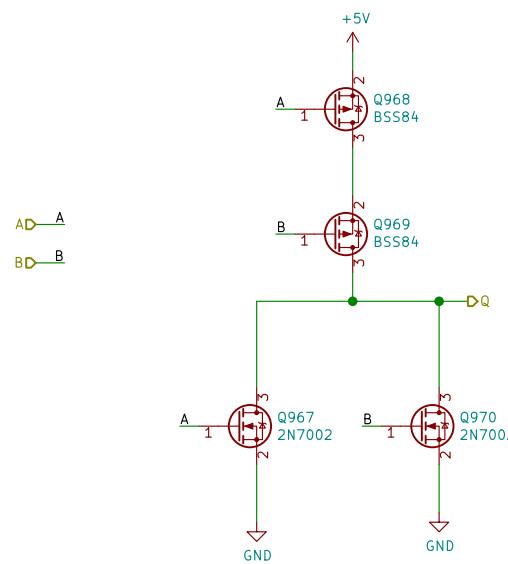
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet60494411/Sheet604ADE57/sheet6054A98B/sheet5E562636/

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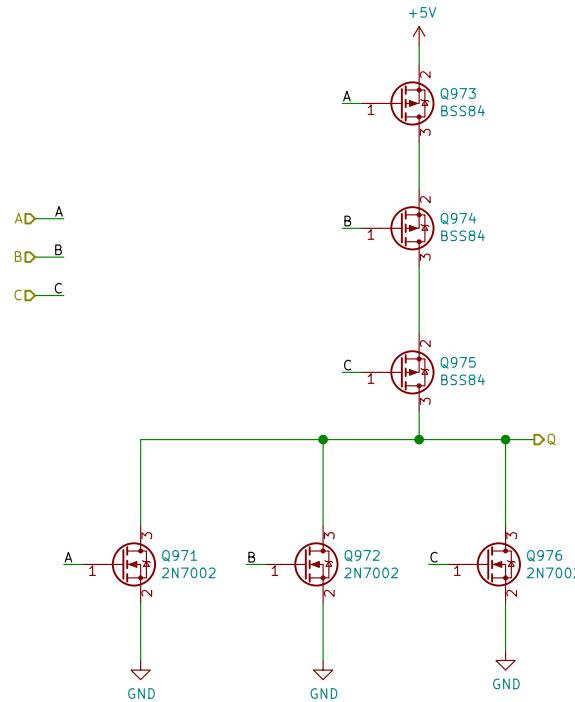
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Rev: v1.0

Id: 345/398



https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet60494411/Sheet6054CC30/

File: Gate_NOR3in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 346/398

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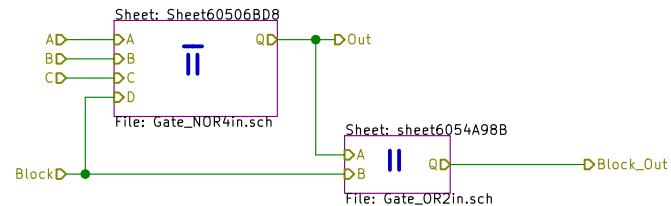
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**Philipp Schilk**

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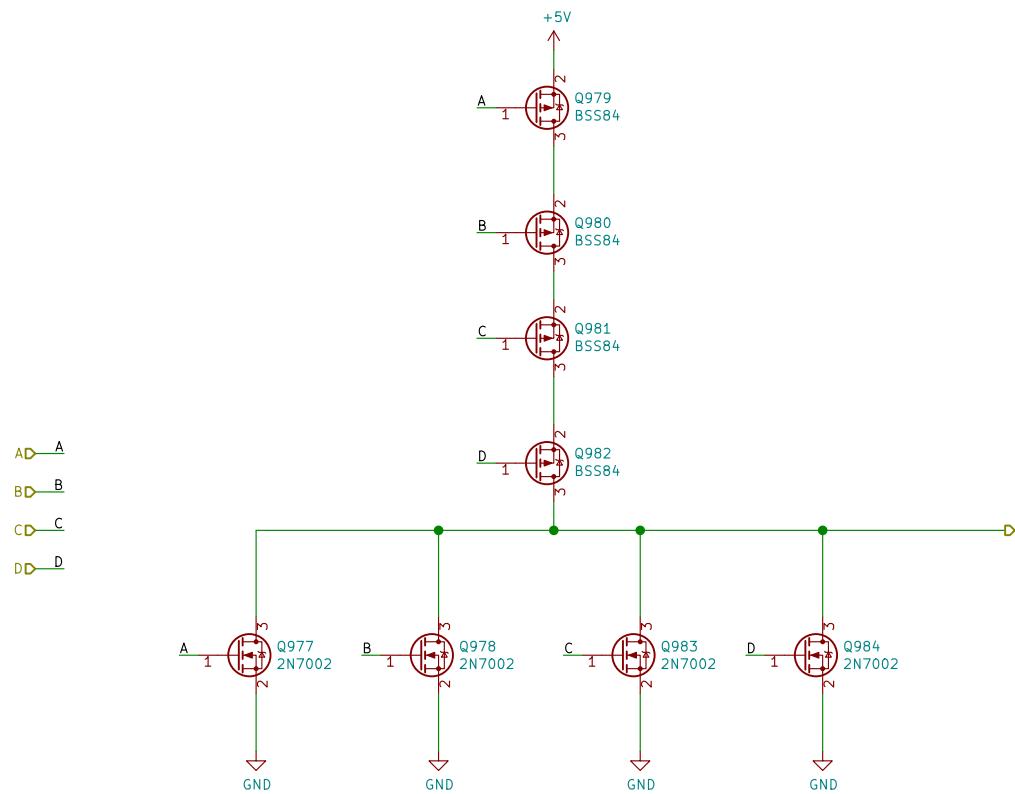
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Size: A4 Date:

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 347/398



Philipp Schilk

Sheet: /Sheet60494411/sheet606FAE28/Sheet60506BD8/
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Title: Fets & Crosses Engine

Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 348/398

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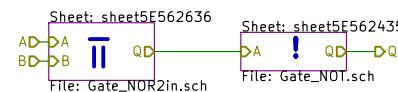
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

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Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

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Rev: v1.0

Id: 349/398

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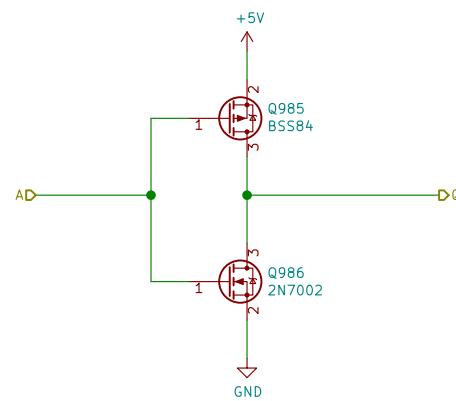
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet60494411/sheet606FAE28/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 350/398

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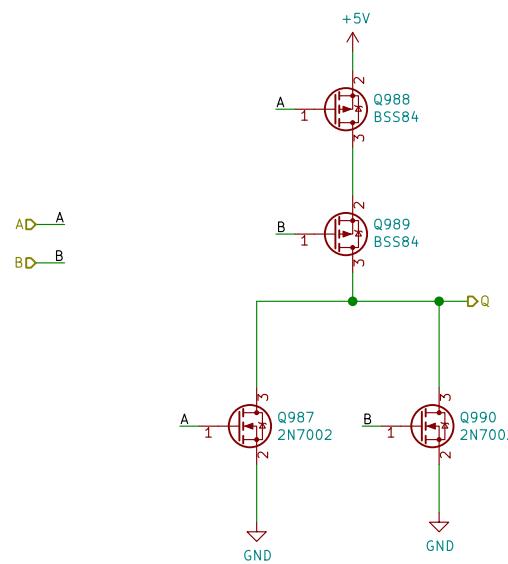
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet60494411/sheet606FAE28/sheet6054A98B/sheet5E562636/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 351/398

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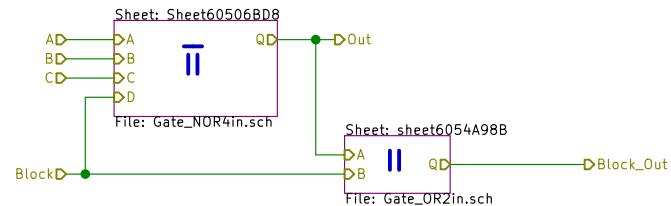
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**Philipp Schilk**

Sheet: /Sheet60494411/sheet606FDE93/

File: Cell3in.sch

Title: Fets & Crosses Engine

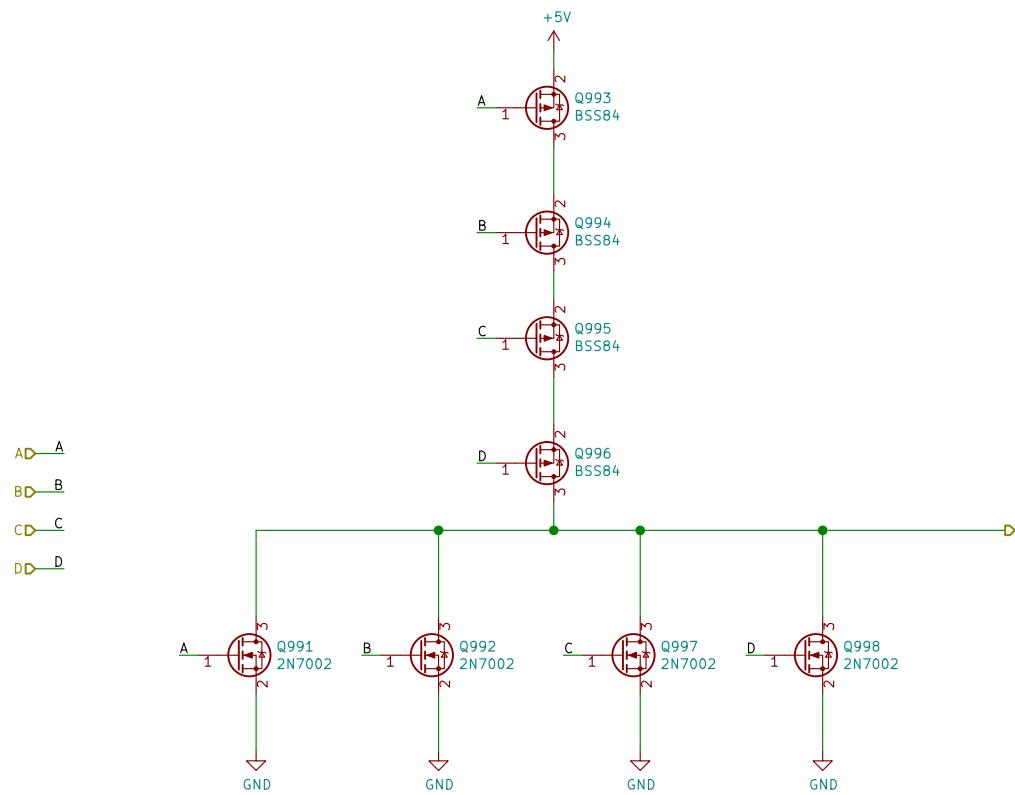
Size: A4

Date:

Rev: v1.0

KiCad E.D.A. kicad (5.1.9)-1

Id: 352/398



Philipp Schilk

Sheet: /Sheet60494411/sheet606FDE93/Sheet60506BD8/
File: Gate_NOR4in.sch

Title: Fets & Crosses Engine

Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 353/398

A

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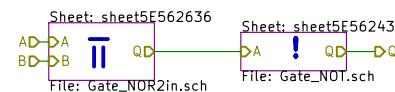
B

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet60494411/sheet606FDE93/sheet6054A98B/

File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 354/398

A

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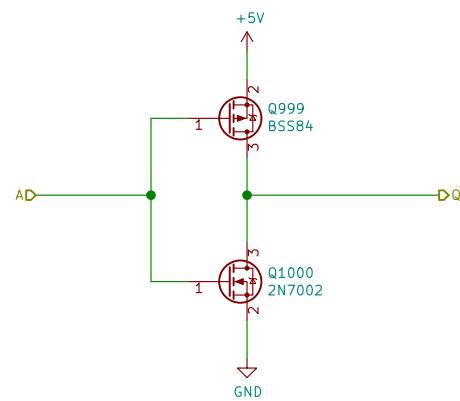
D

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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet60494411/sheet606FDE93/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 355/398

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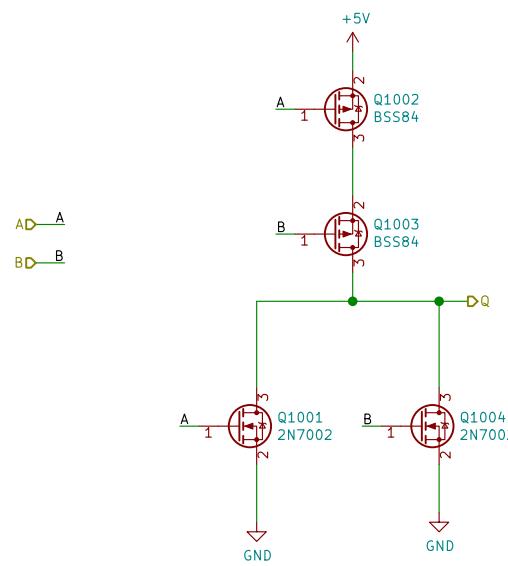
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet60494411/sheet606FDE93/sheet6054A98B/sheet5E562636/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 356/398

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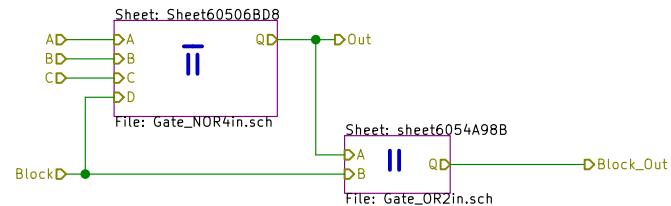
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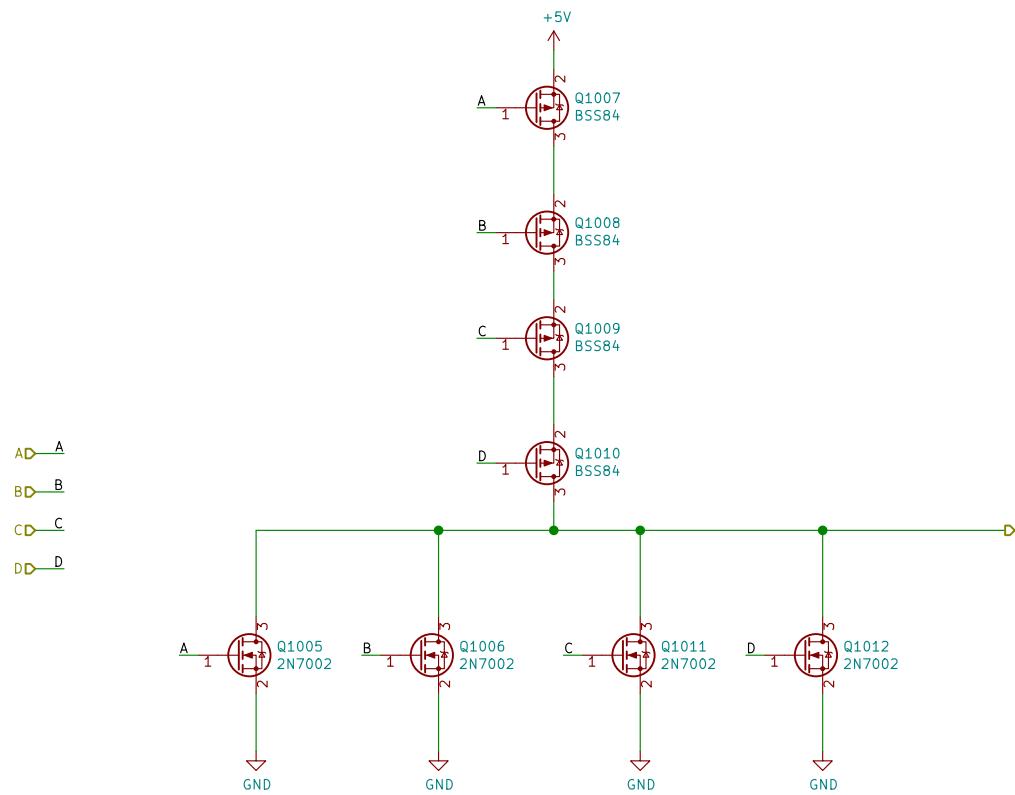
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**Philipp Schilk**Sheet: /Sheet60494411/sheet60700FC2/
File: Cell3in.sch**Title: Fets & Crosses Engine**Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 357/398



Philipp Schilk

Sheet: /Sheet60494411/sheet60700FC2/Sheet60506BD8/
File: Gate_NOR4in.sch

Title: Fets & Crosses Engine

Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 358/398

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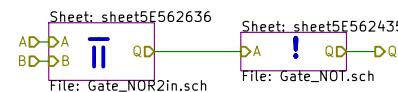
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet60494411/sheet60700FC2/sheet6054A98B/

File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 359/398

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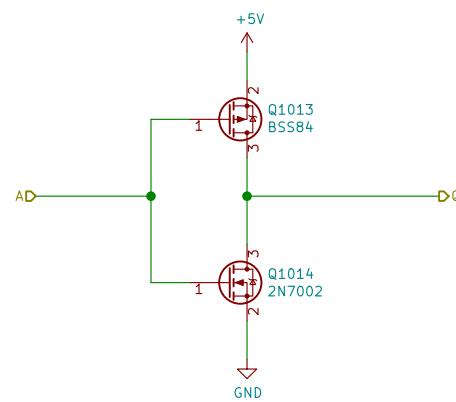
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet60494411/sheet60700FC2/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 360/398

A

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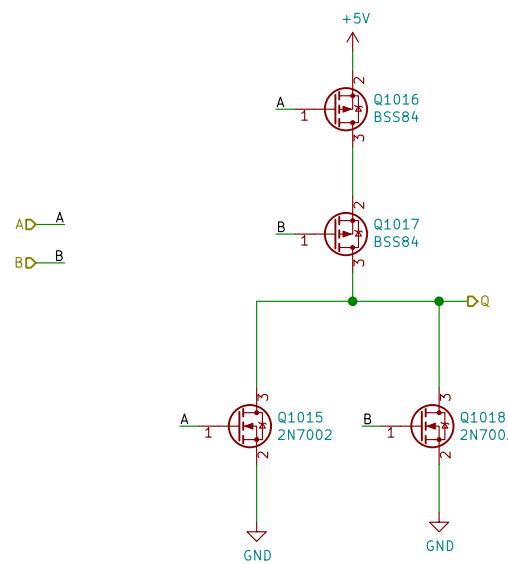
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet60494411/sheet60700FC2/sheet6054A98B/sheet5E562636/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 361/398

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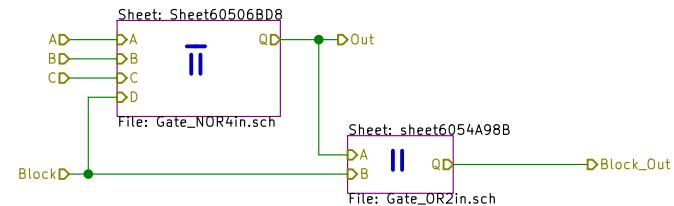
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**Philipp Schilk**

Sheet: /Sheet60494411/sheet60703EAC/

File: Cell3in.sch

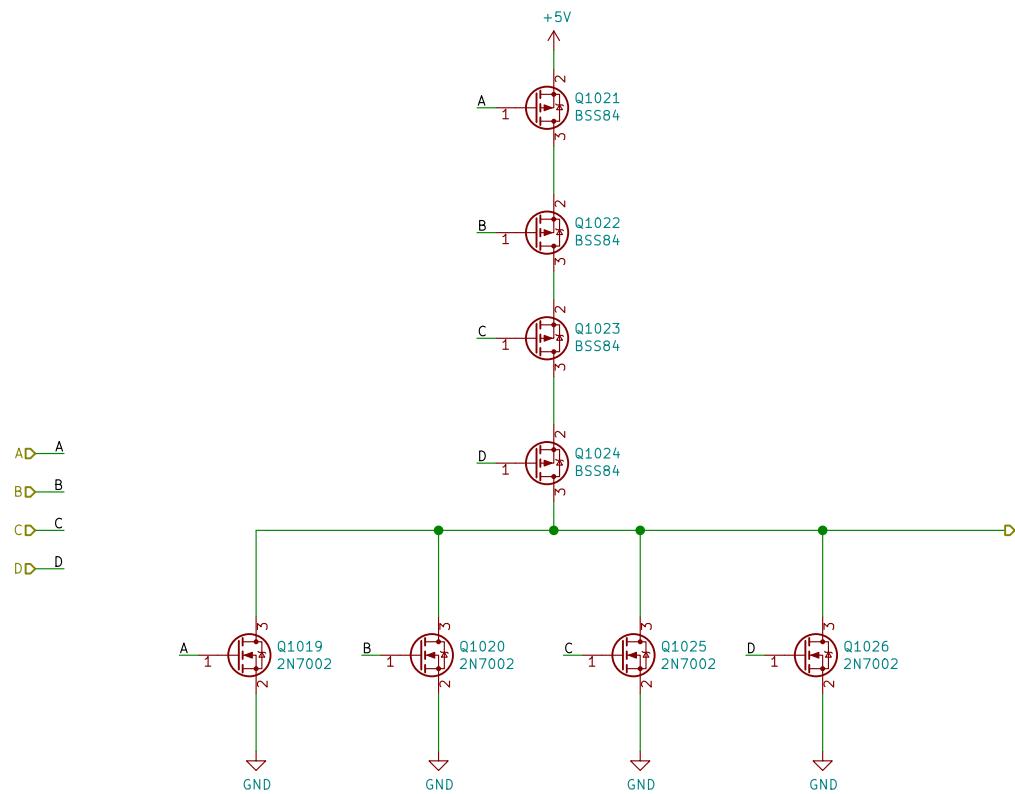
Title: Fets & Crosses Engine

Size: A4 Date:

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 362/398



Philipp Schilk

Sheet: /Sheet60494411/sheet60703EAC/Sheet60506BD8/
File: Gate_NOR4in.sch

Title: Fets & Crosses Engine

Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 363/398

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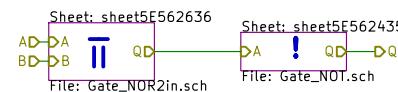
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet60494411/sheet60703EAC/sheet6054A98B/

File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 364/398

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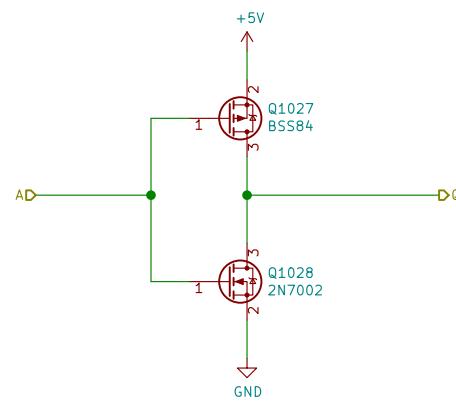
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet60494411/sheet60703EAC/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 365/398

A

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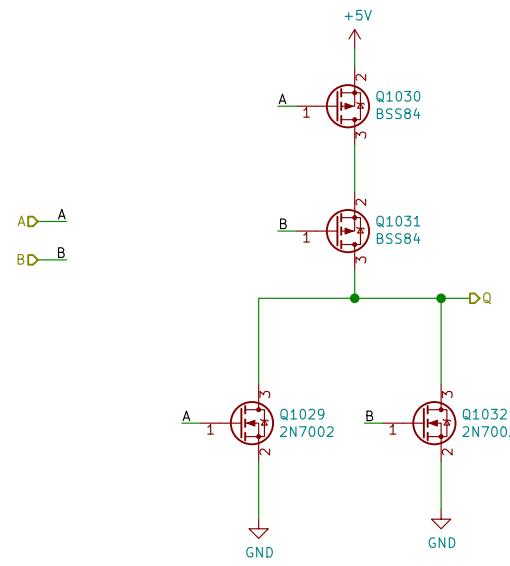
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet60494411/sheet60703EAC/sheet6054A98B/sheet5E562636/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 366/398

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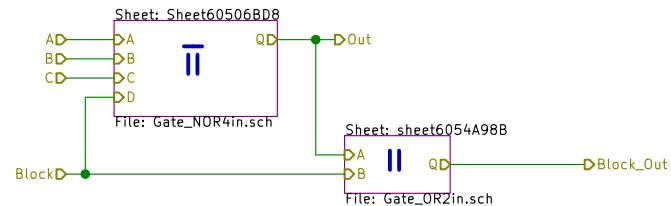
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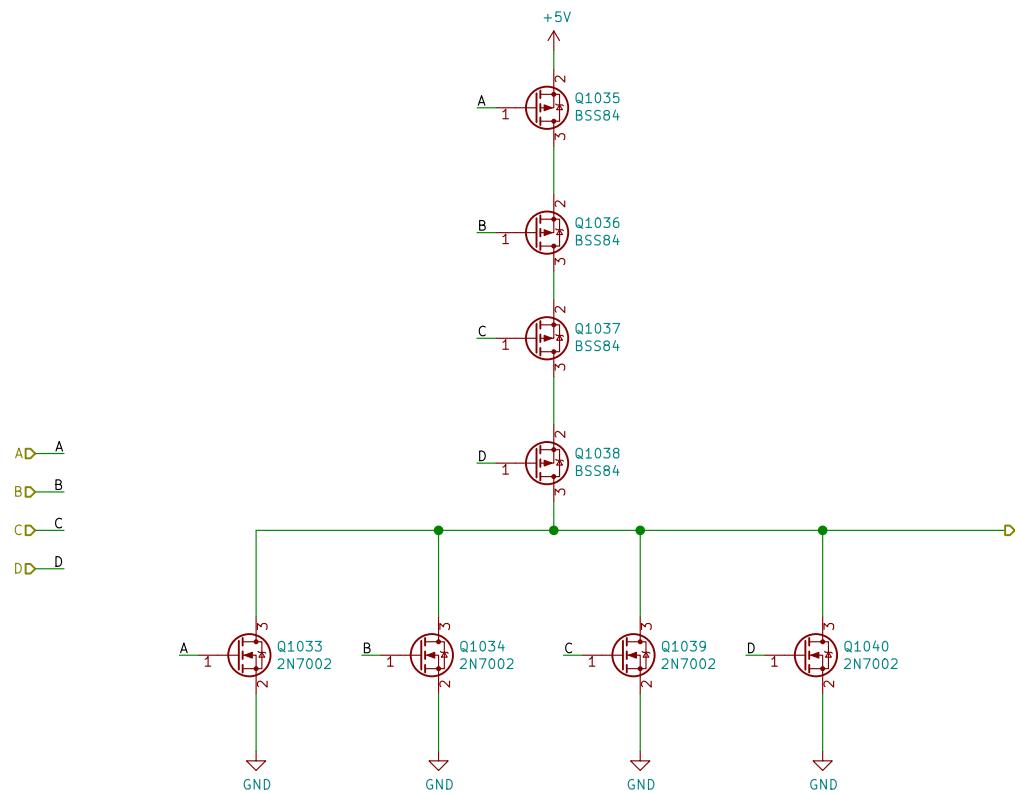
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**Philipp Schilk**

Sheet: /Sheet60494411/sheet60707A9A/

File: Cell3in.sch

Title: Fets & Crosses EngineSize: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 367/398



Philipp Schilk

Sheet: /Sheet60494411/sheet60707A9A/Sheet60506BD8/
File: Gate_NOR4in.sch

Title: Fets & Crosses Engine

Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 368/398

A

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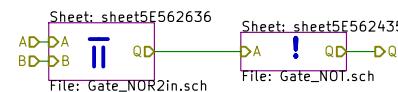
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet60494411/sheet60707A9A/sheet6054A98B/

File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 369/398

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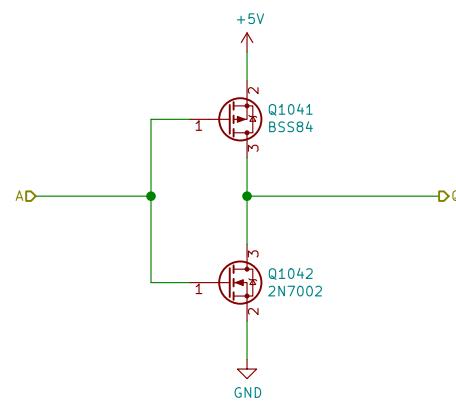
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet60494411/sheet60707A9A/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 370/398

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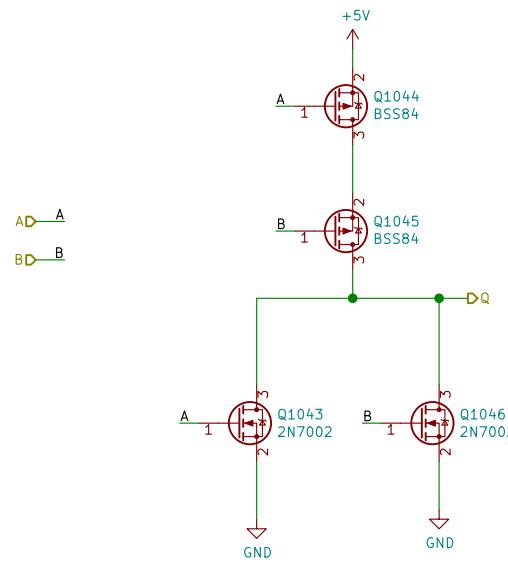
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet60494411/sheet60707A9A/sheet6054A98B/sheet5E562636/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 371/398

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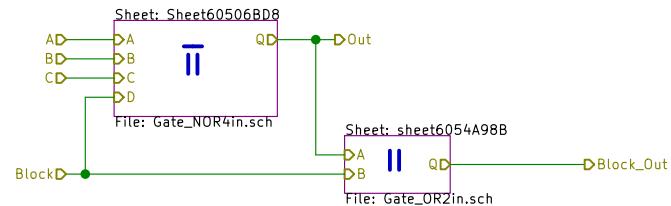
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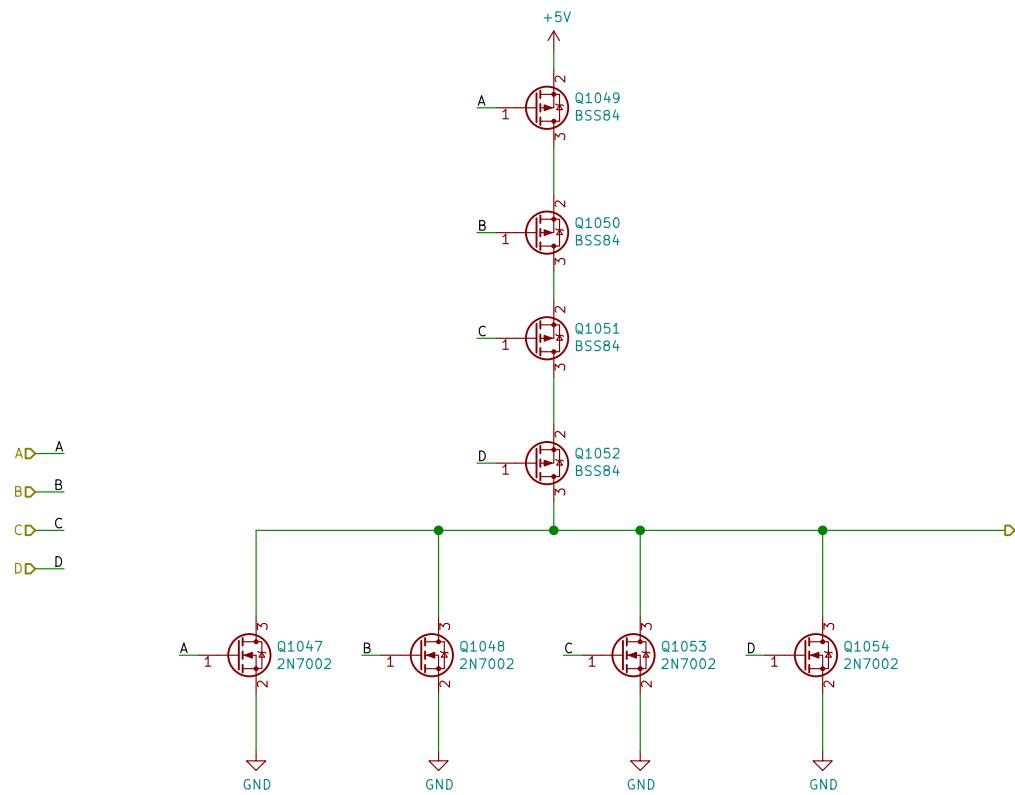
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**Philipp Schilk**Sheet: /Sheet60494411/sheet60707A9B/
File: Cell3in.sch**Title: Fets & Crosses Engine**Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 372/398



Philipp Schilk

Sheet: /Sheet60494411/sheet60707A9B/Sheet60506BD8/
File: Gate_NOR4in.sch

Title: Fets & Crosses Engine

Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 373/398

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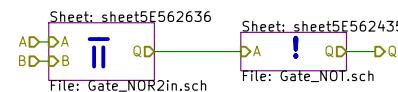
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp SchilkSheet: /Sheet60494411/sheet60707A9B/sheet6054A98B/
File: Gate_OR2in.sch**Title: Fets & Crosses Engine**Size: A4 Date: 2020-09-15
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 374/398

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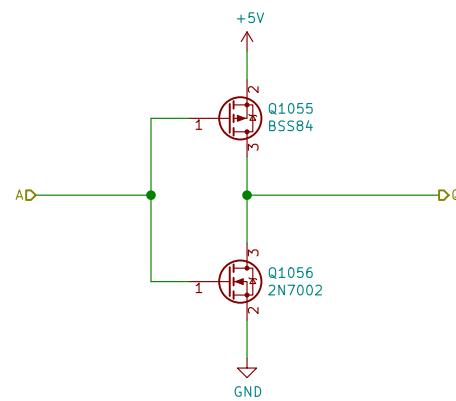
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet60494411/sheet60707A9B/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 375/398

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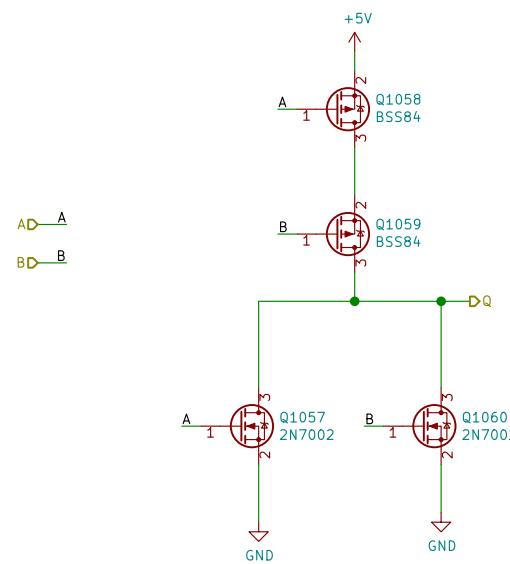
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet60494411/sheet60707A9B/sheet6054A98B/sheet5E562636/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 376/398

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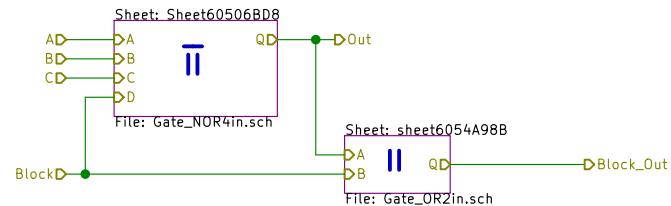
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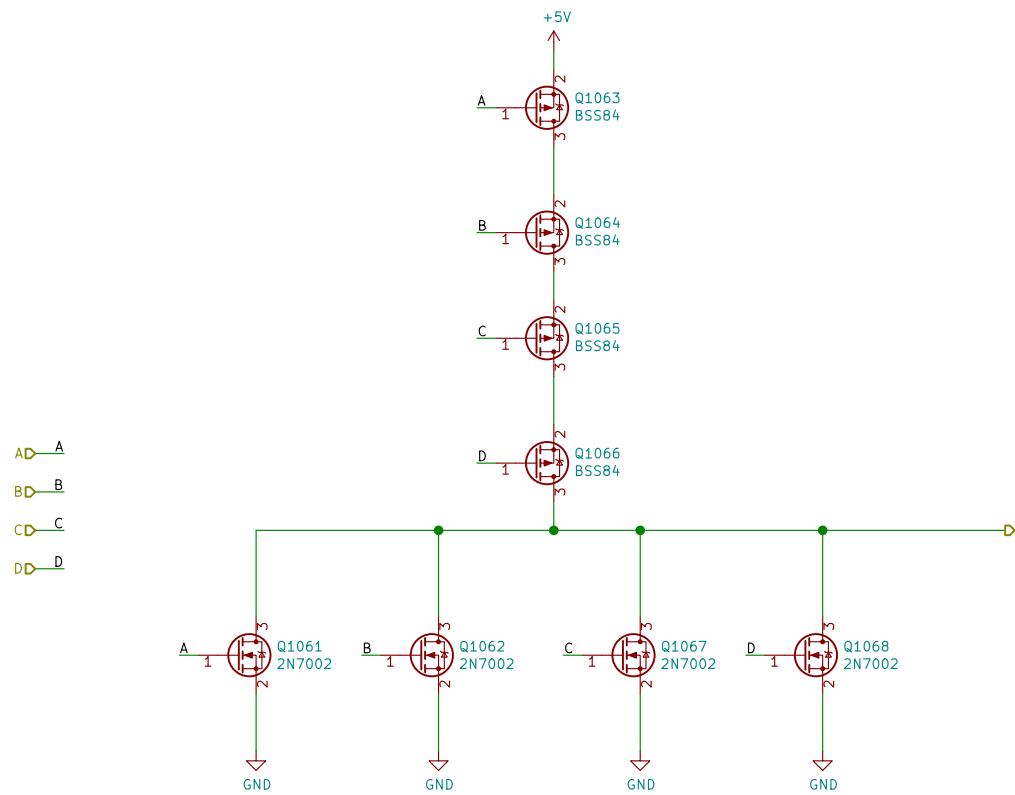
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KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 377/398



Philipp Schilk

Sheet: /Sheet60494411/sheet60707A9C/Sheet60506BD8/
File: Gate_NOR4in.sch

Title: Fets & Crosses Engine

Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 378/398

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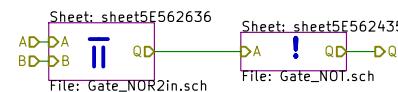
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp SchilkSheet: /Sheet60494411/sheet60707A9C/sheet6054A98B/
File: Gate_OR2in.sch**Title: Fets & Crosses Engine**Size: A4 Date: 2020-09-15
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 379/398

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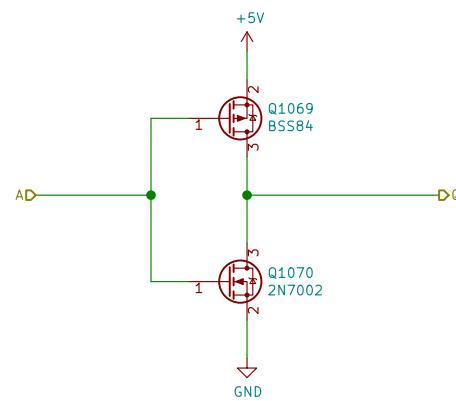
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet60494411/sheet60707A9C/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 380/398

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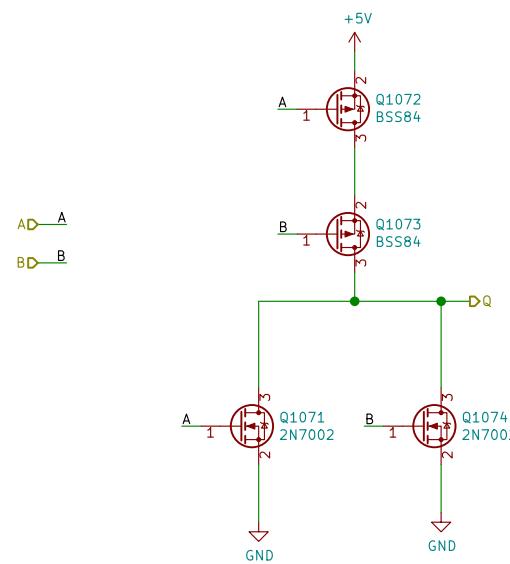
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /Sheet60494411/sheet60707A9C/sheet6054A98B/sheet5E562636/

File: Gate_NOR2in.sch

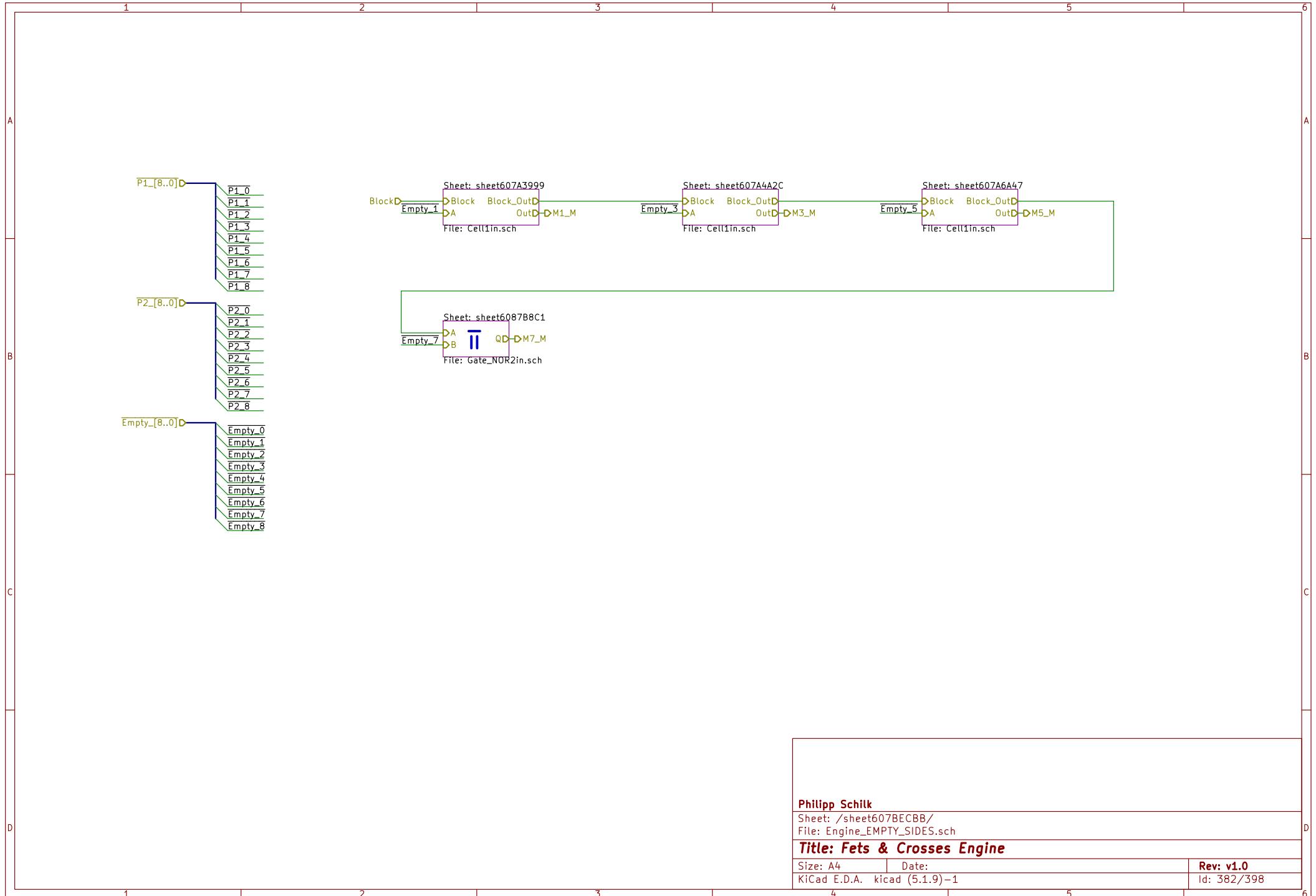
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Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 381/398



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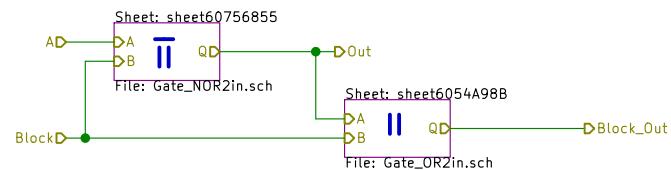
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Philip Schilk

Sheet: /sheet607BECBB/sheet607A3999/
File: Cell1in.sch

Title: Fets & Crosses Engine

Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0
Id: 383/398

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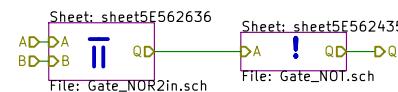
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic
Philipp Schilk
Sheet: /sheet607BECBB/sheet607A3999/sheet6054A98B/
File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 384/398

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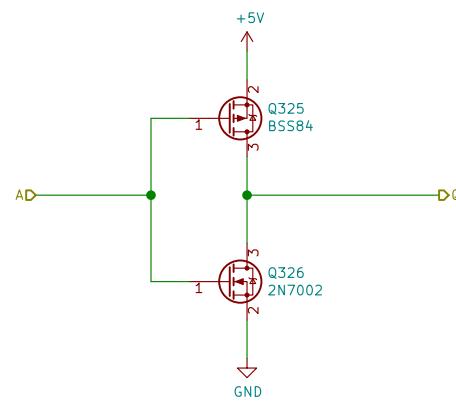
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet607BECBB/sheet607A3999/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 385/398

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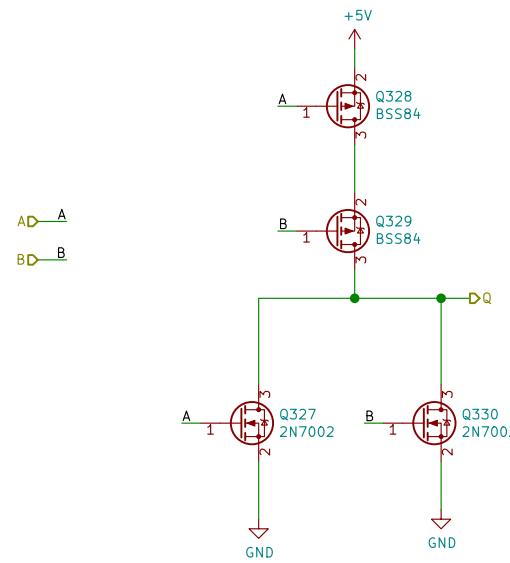
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet607BECBB/sheet607A3999/sheet6054A98B/sheet5E562636/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 386/398

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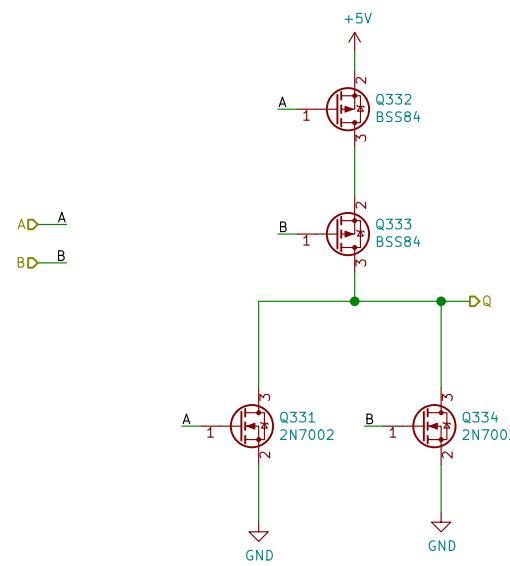
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet607BECBB/sheet607A3999/sheet60756855/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 387/398

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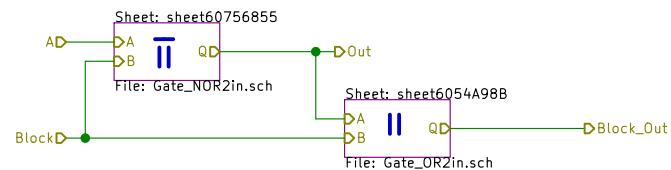
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**Philipp Schilk**Sheet: /sheet607BECBB/sheet607A6A47/
File: Cell1in.sch**Title: Fets & Crosses Engine**Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 388/398

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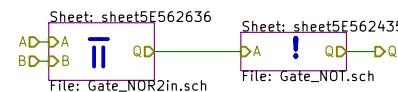
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic
Philipp Schilk
Sheet: /sheet607BECBB/sheet607A6A47/sheet6054A98B/
File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 389/398

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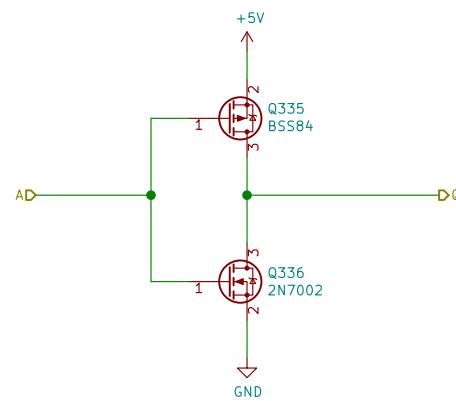
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

[Philipp Schilk](#)

Sheet: /sheet607BECBB/sheet607A6A47/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 390/398

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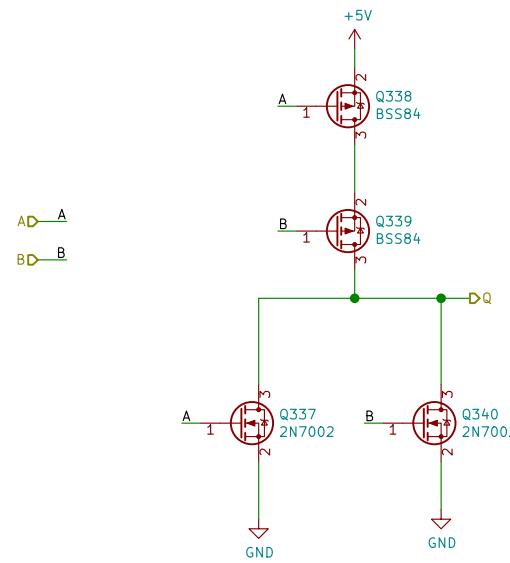
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet607BECBB/sheet607A6A47/sheet6054A98B/sheet5E562636/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 391/398

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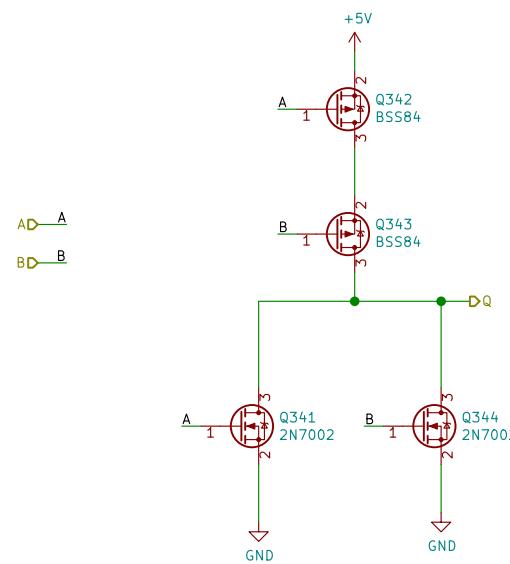
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet607BECBB/sheet607A6A47/sheet60756855/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 392/398

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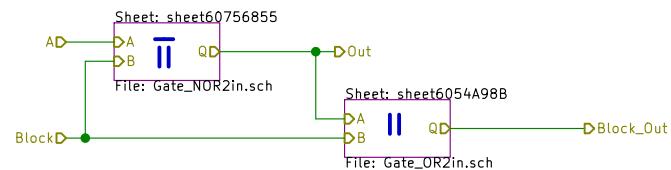
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**Philipp Schilk**Sheet: /sheet607BECBB/sheet607A4A2C/
File: Cell1in.sch**Title: Fets & Crosses Engine**Size: A4 Date:
KiCad E.D.A. kicad (5.1.9)-1Rev: v1.0
Id: 393/398

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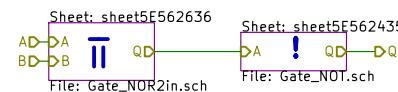
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic
Philipp Schilk
Sheet: /sheet607BECBB/sheet607A4A2C/sheet6054A98B/
File: Gate_OR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 394/398

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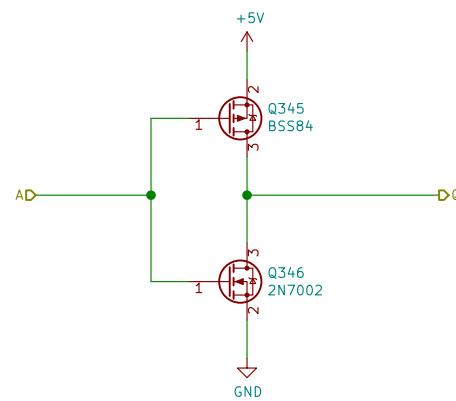
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet607BECBB/sheet607A4A2C/sheet6054A98B/sheet5E562435/

File: Gate_NOT.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 395/398

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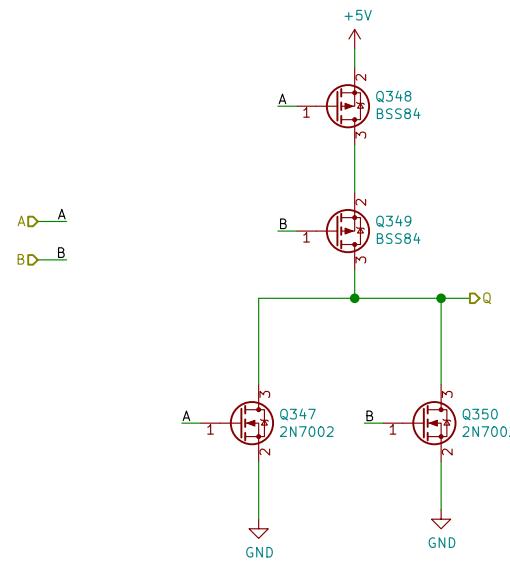
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Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

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Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 396/398

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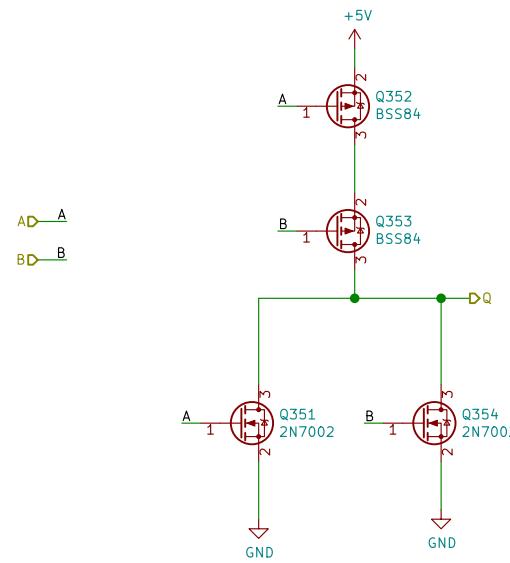
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet607BECBB/sheet607A4A2C/sheet60756855/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 397/398

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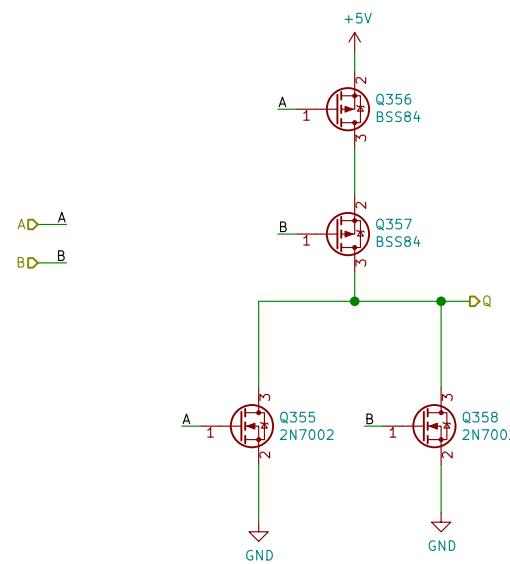
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https://github.com/TheSchilk/Fets_and_Crosses

Tic-Tac-Toe implementation from discrete-transistor CMOS logic

Philipp Schilk

Sheet: /sheet607BECBB/sheet6087B8C1/

File: Gate_NOR2in.sch

Title: Fets & Crosses Engine

Size: A4 Date: 2020-09-15

KiCad E.D.A. kicad (5.1.9)-1

Rev: v1.0

Id: 398/398