

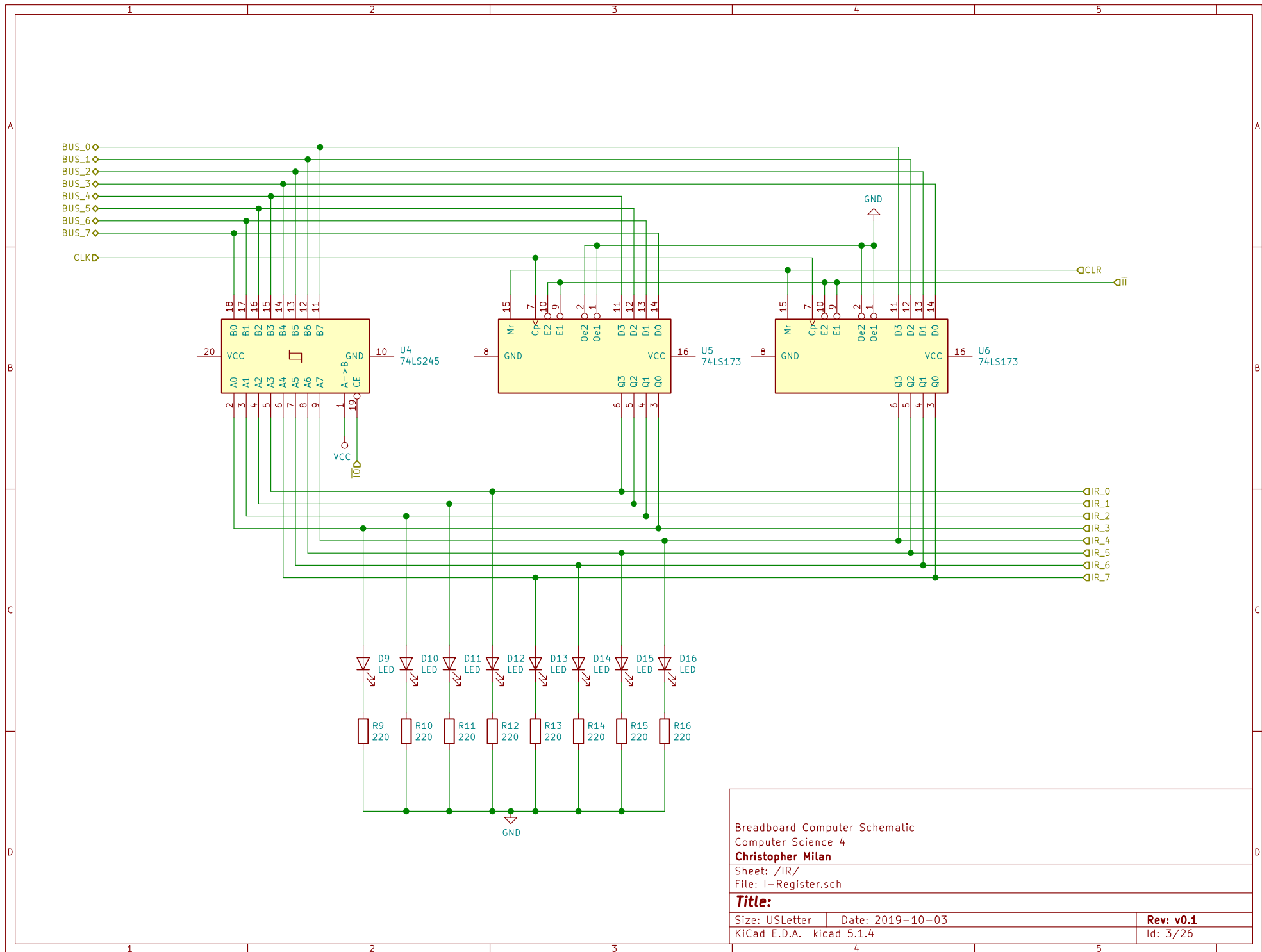
Breadboard Computer Schematic
Computer Science 4
Christopher Milan

Sheet: /A/
File: A-Register.sch

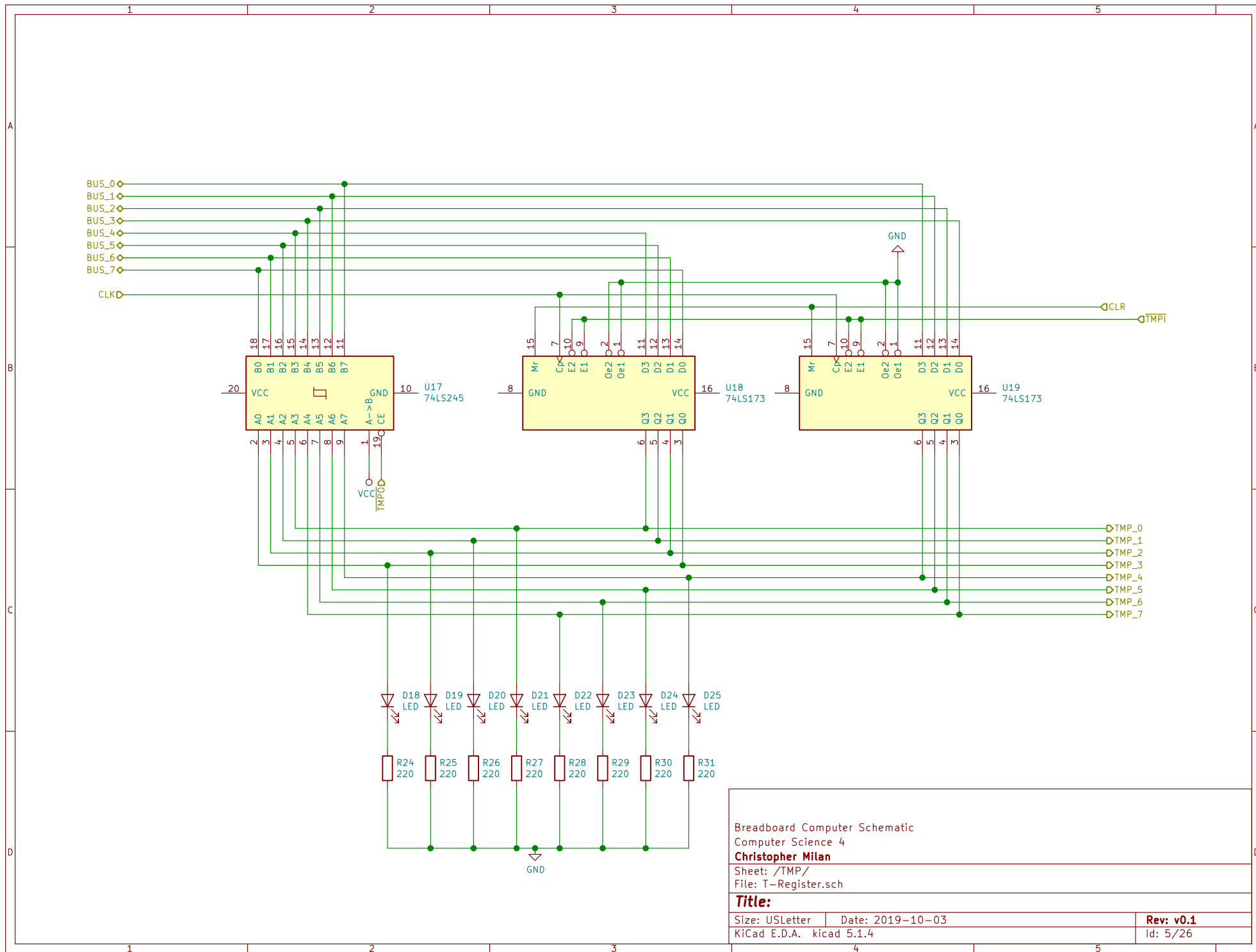
Title: Accumulator

Size: USLetter | Date: 2019-10-03
KiCad E.D.A. | kicad 5.1.4

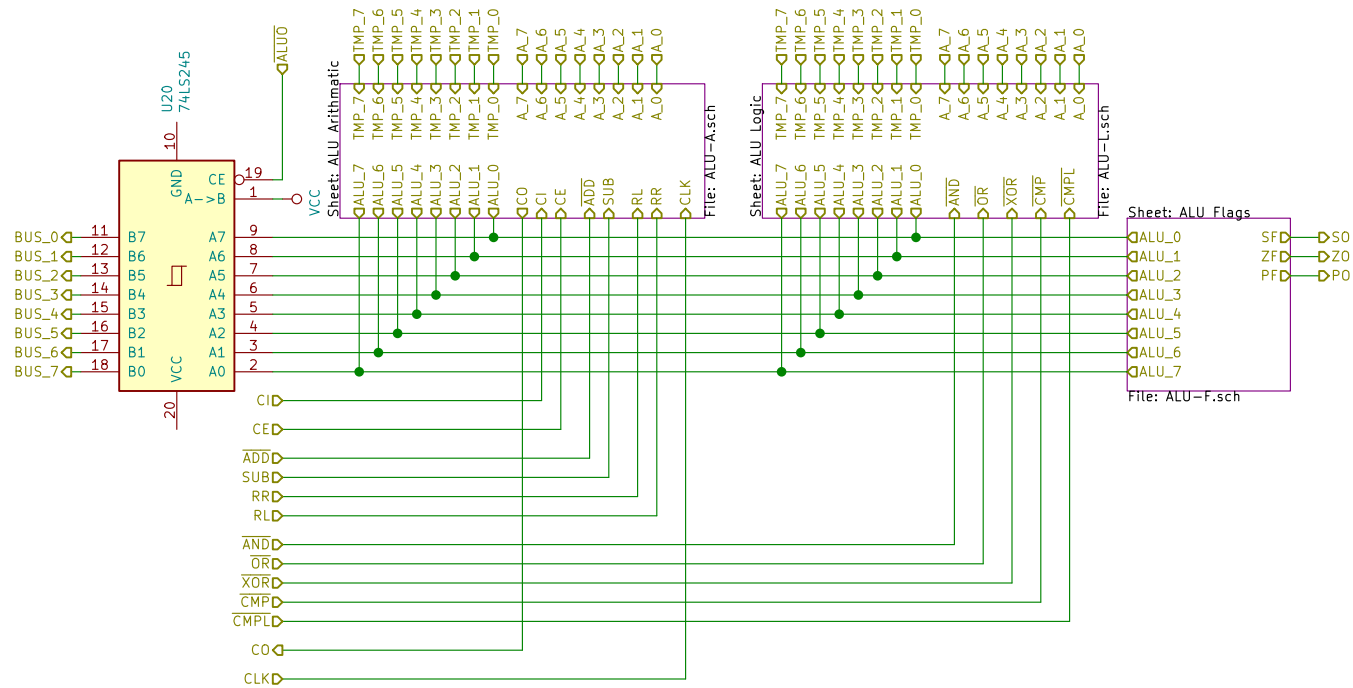
Rev: v0.1
Id: 2/26



Rev: v0.1
Id: 4/26



- Instructions:
- [X] ADD/ADC/ADI
 - [X] SUB/SBB/SUI
 - [] INR/INX
 - [] DCR/DCX
 - [] DAD
 - [X] ANA/ANI
 - [X] ORA/ORI
 - [X] XRA/XRI
 - [X] CMA
 - [X] CMP/CMi
 - [X] RRC/RLC/RAR/RAL
 - [] CMC
 - [] STC



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Sheet: /ALU/

File: ALU.sch

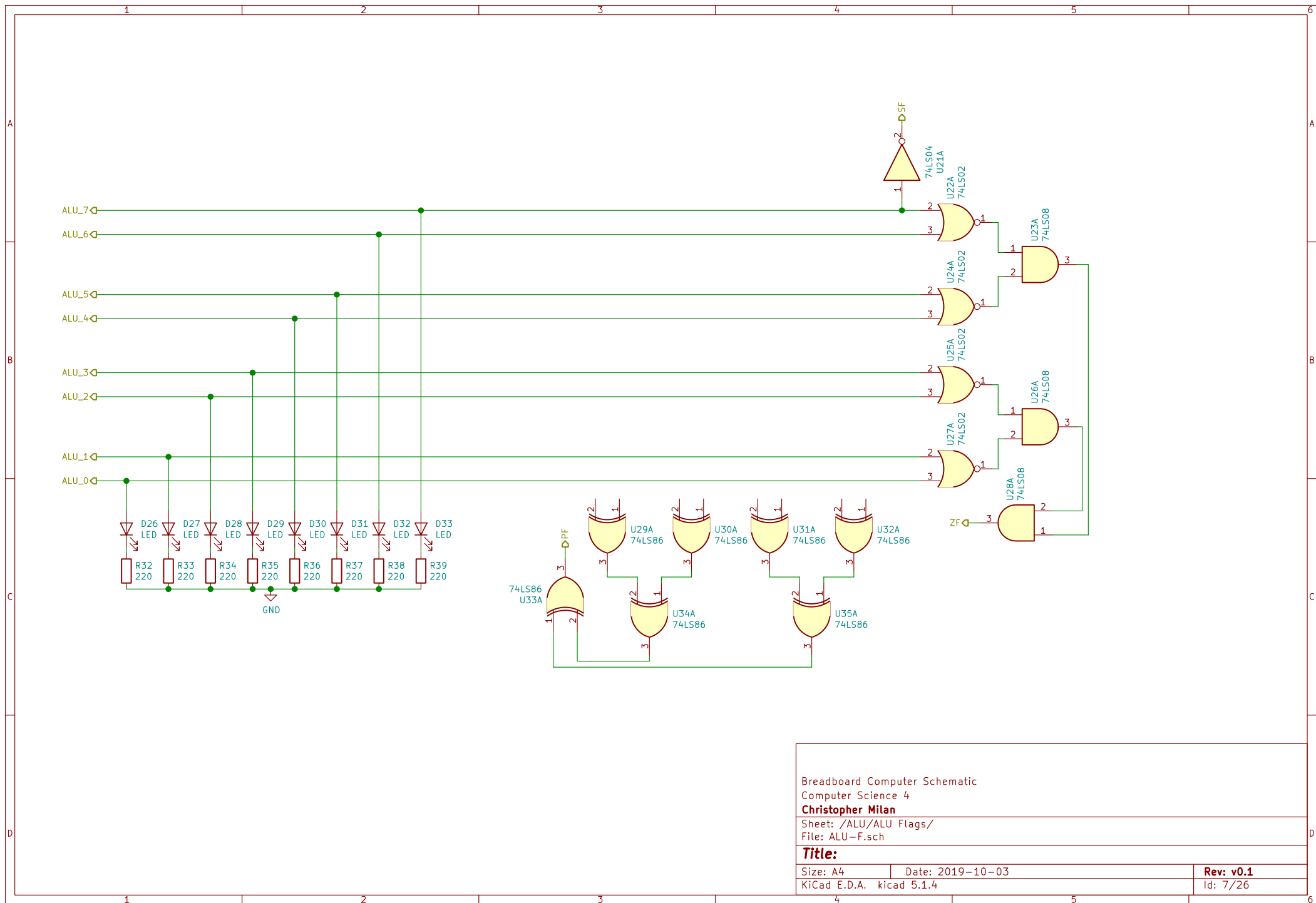
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Size: USLetter Date: 2019-10-03

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Breadboard Computer Schematic

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Sheet: /ALU/ALU Flags/

File: ALU-F.sch

Title:

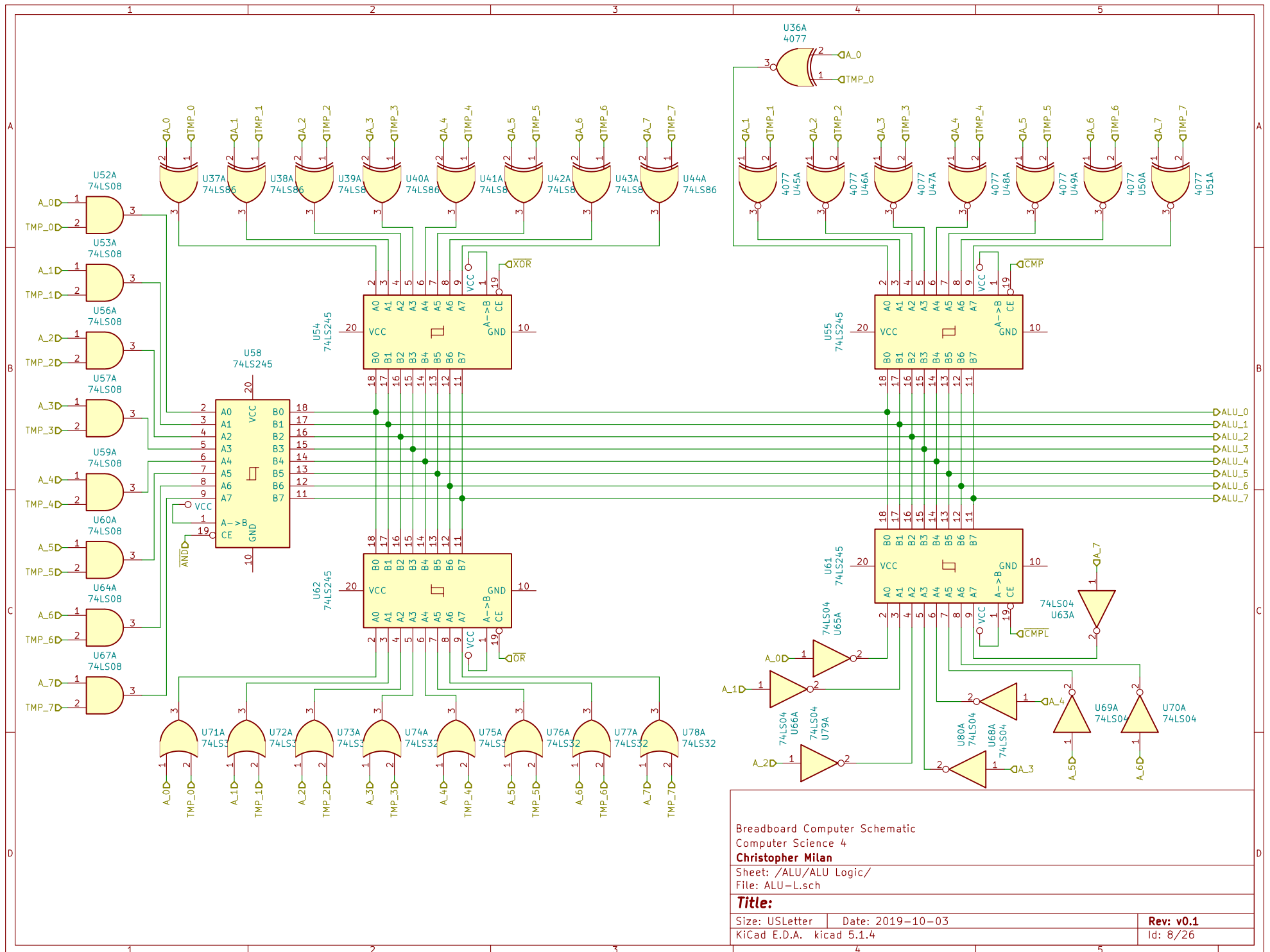
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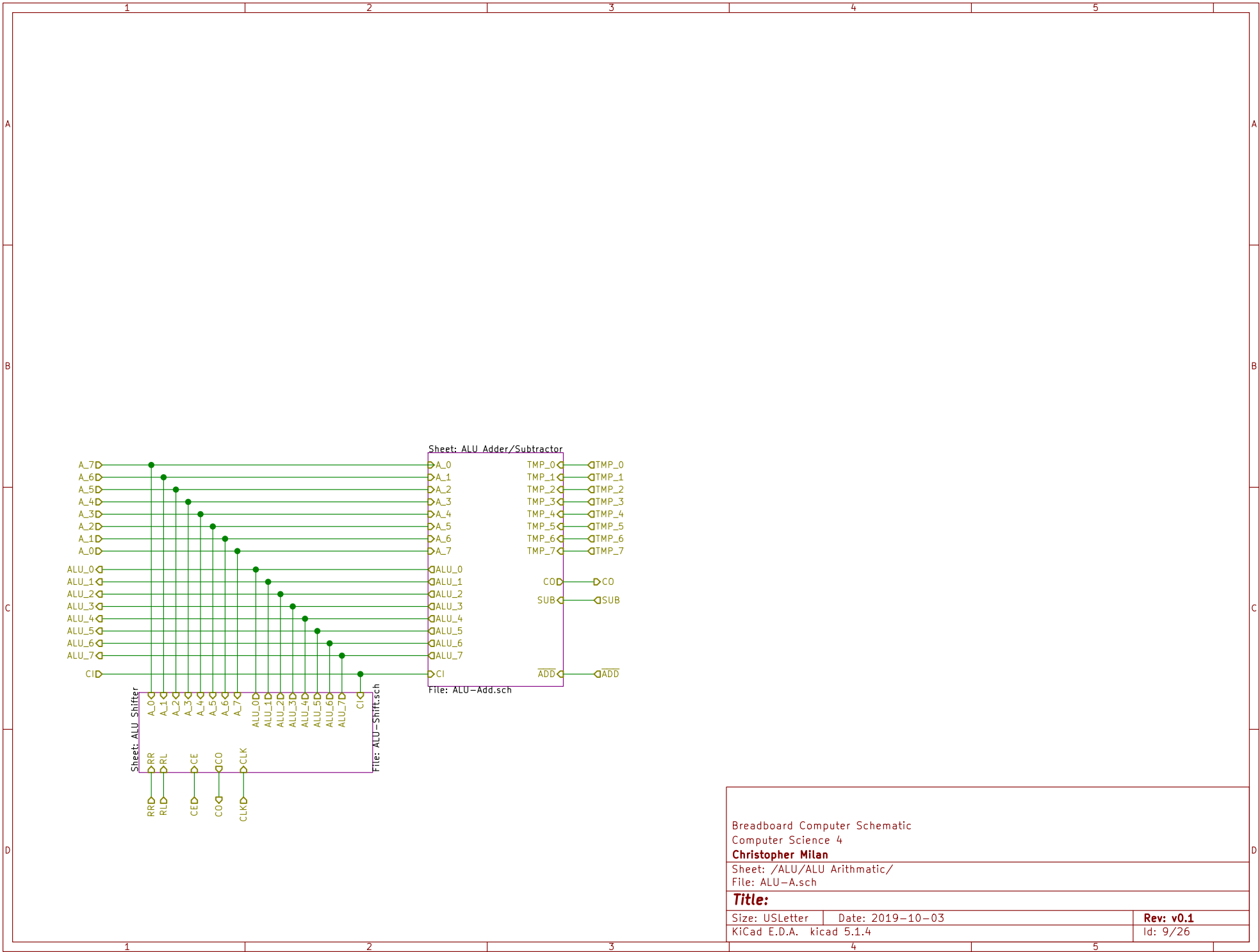
Date: 2019-10-03

Rev: v0.1

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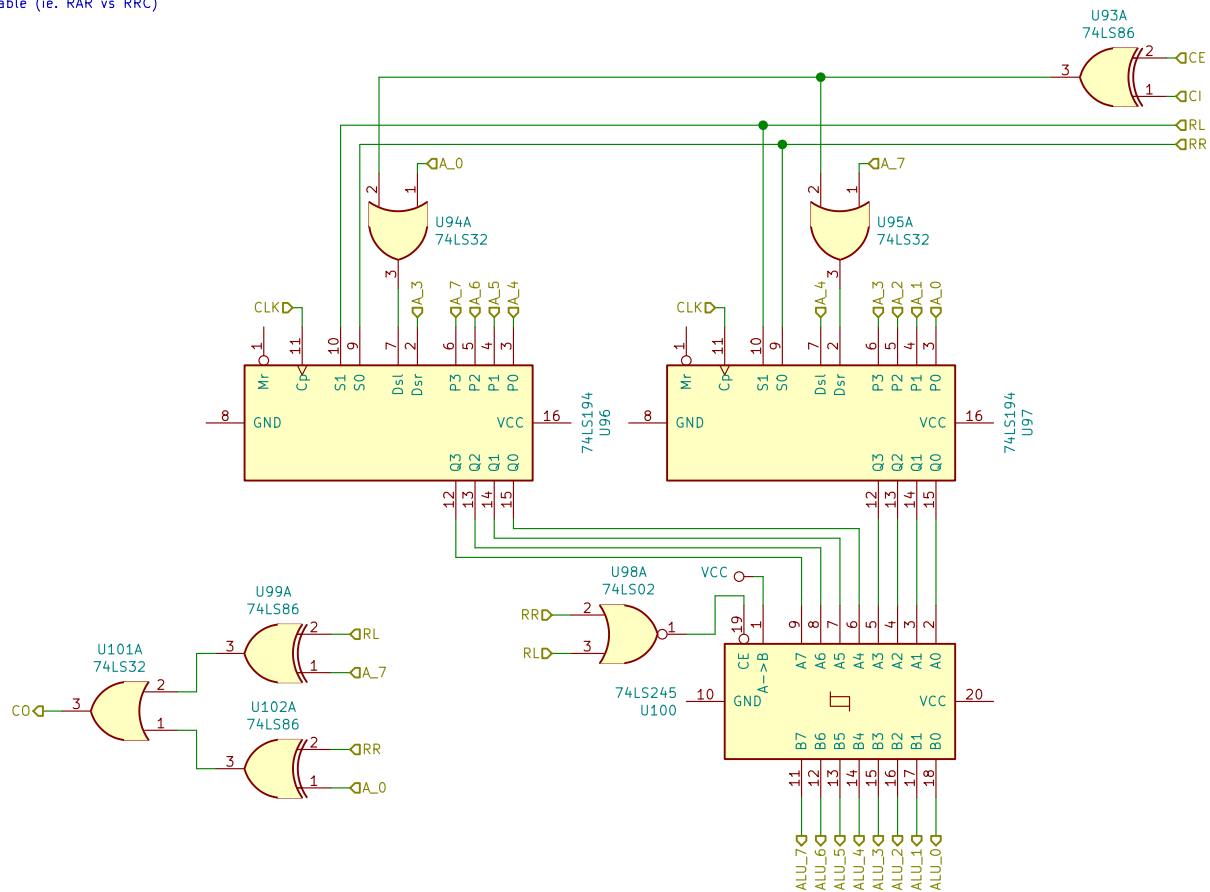
Sheet: /ALU/ALU Arithmetic/
File: ALU-A.sch

Title:

Size: USLetter | Date: 2019-10-03
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Id: 9/26

CI – Carry Flag In
CO – Carry Flag Out
CE – Carry Enable (ie. RAR vs RRC)



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Sheet: /ALU/ALU Arithmetic/ALU Shifter/
File: ALU-Shift.sch

Title:

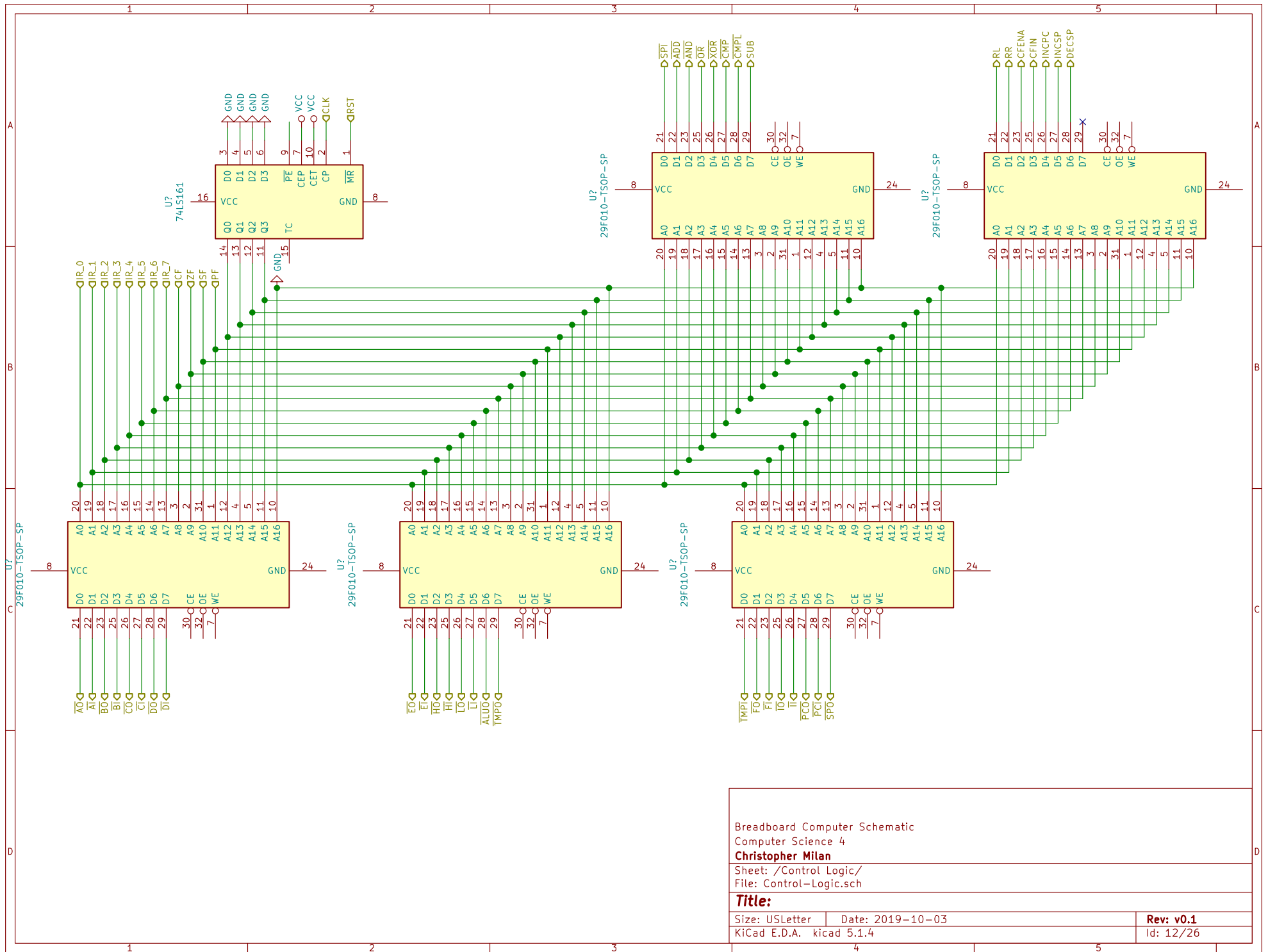
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Date: 2019-10-03

Rev: v0.1

KiCad E.D.A. kicad 5.1.4

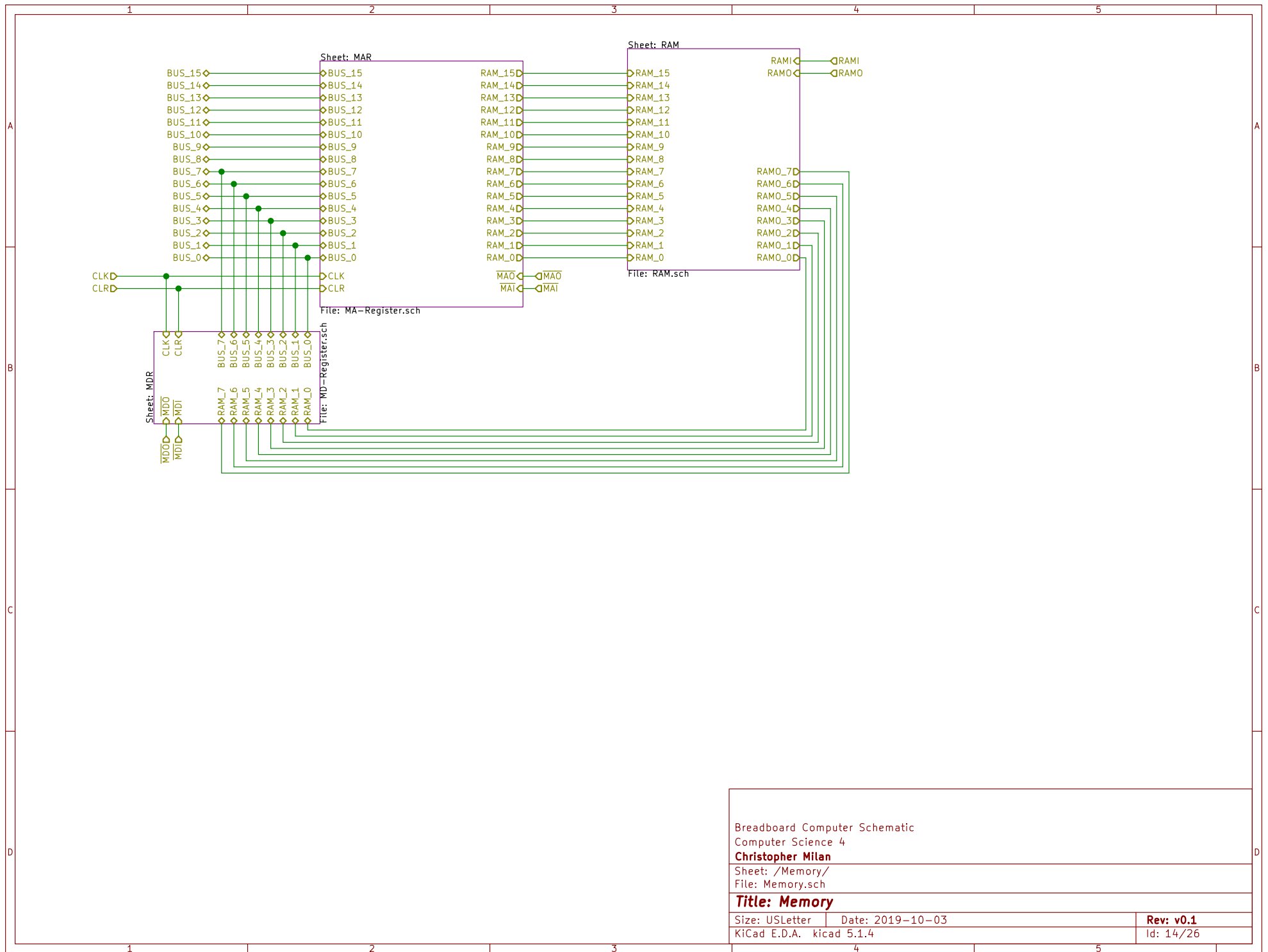
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Size: USLetter	Date: 2019-10-03
KiCad E.D.A. kicad 5.1.4	

Rev: v0.1
Id: 13/26



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Sheet: /Memory/

File: Memory.sch

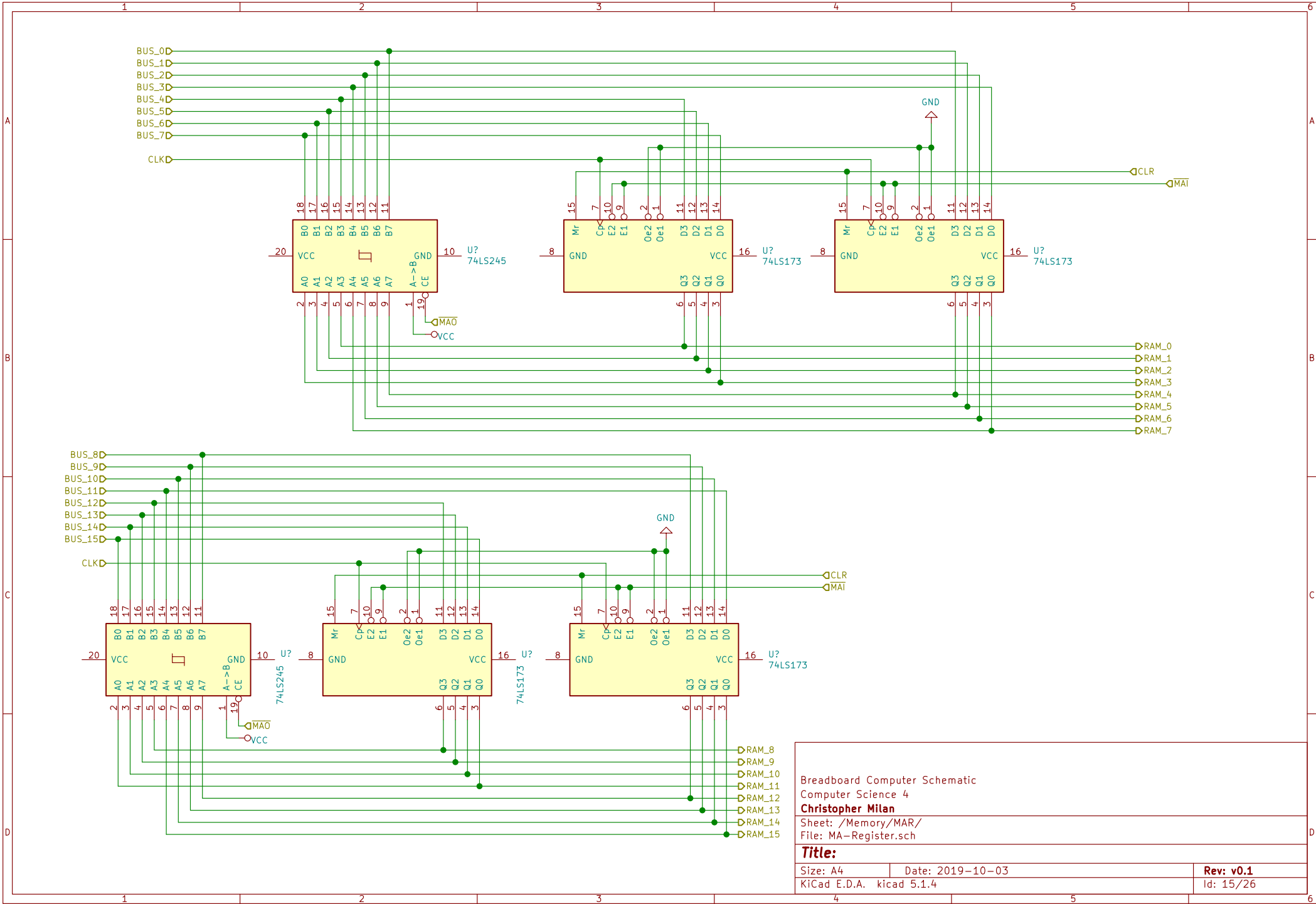
Title: Memory

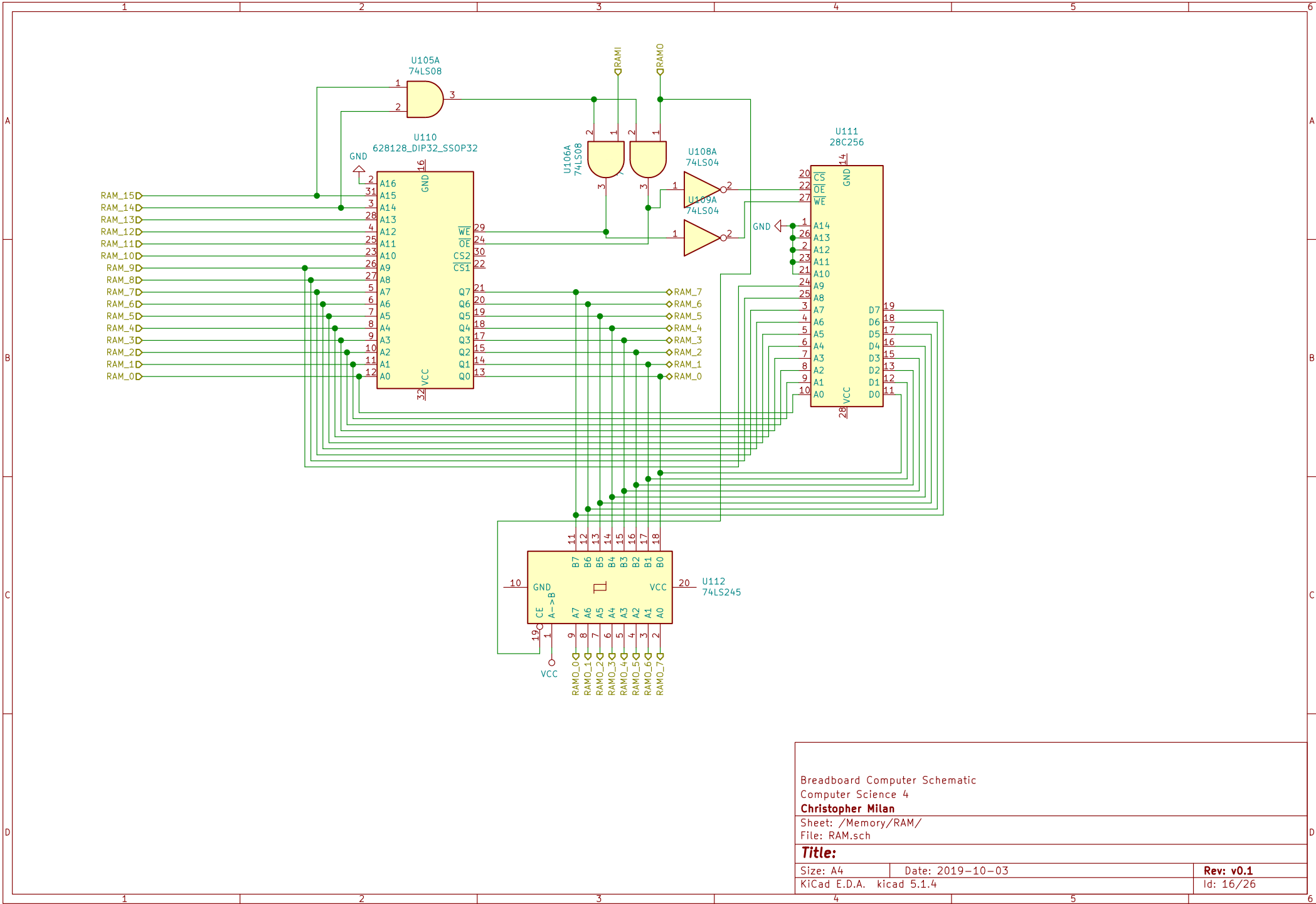
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KiCad E.D.A. kicad 5.1.4

Rev: v0.1

Id: 14/26





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Sheet: /Memory/RAM/

File: RAM.sch

Title:

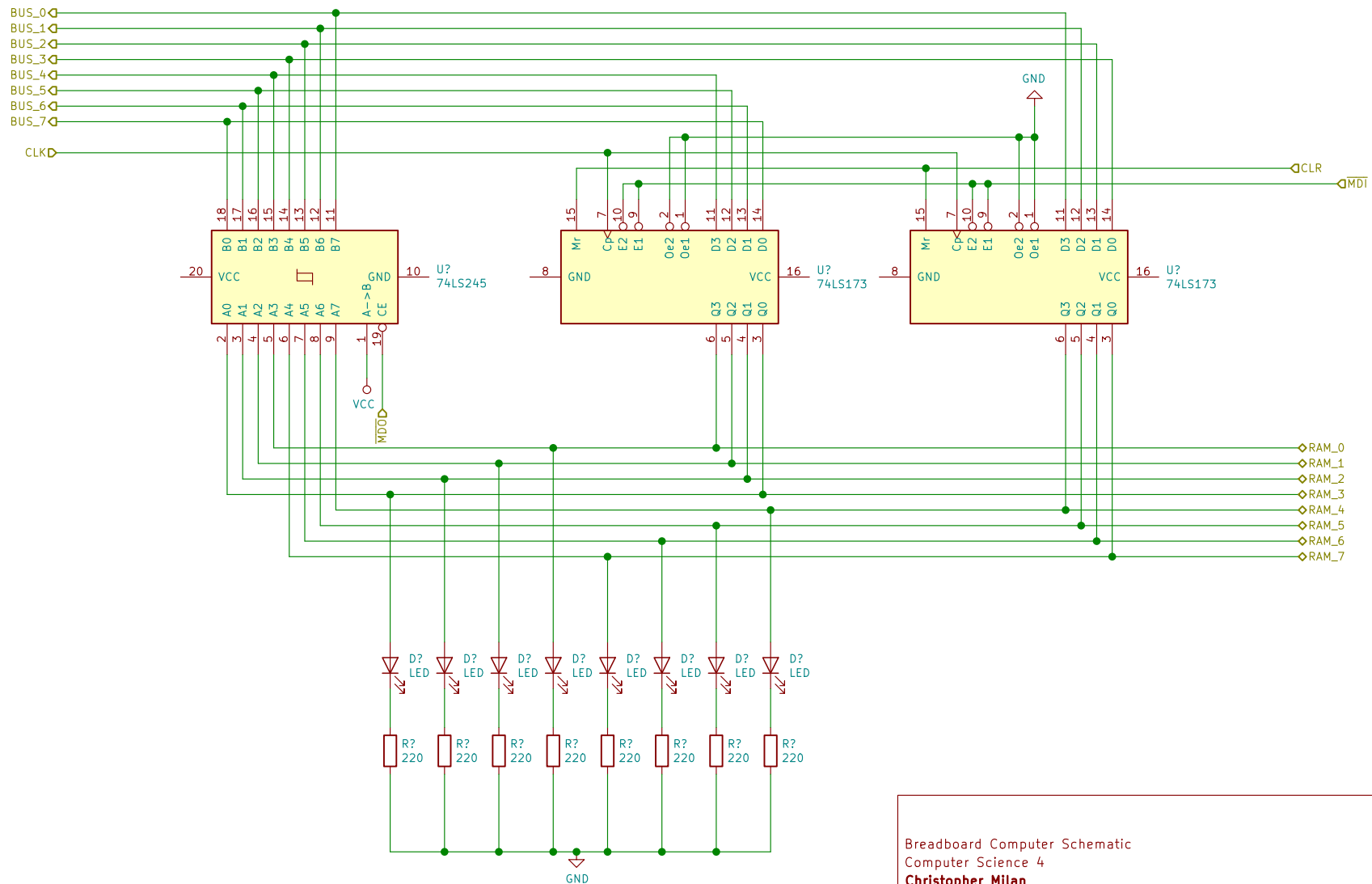
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Date: 2019-10-03

Rev: v0.1

KiCad E.D.A. kicad 5.1.4

Id: 16/26



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Sheet: /Memory/MDR/

File: MD-Register.sch

Title:

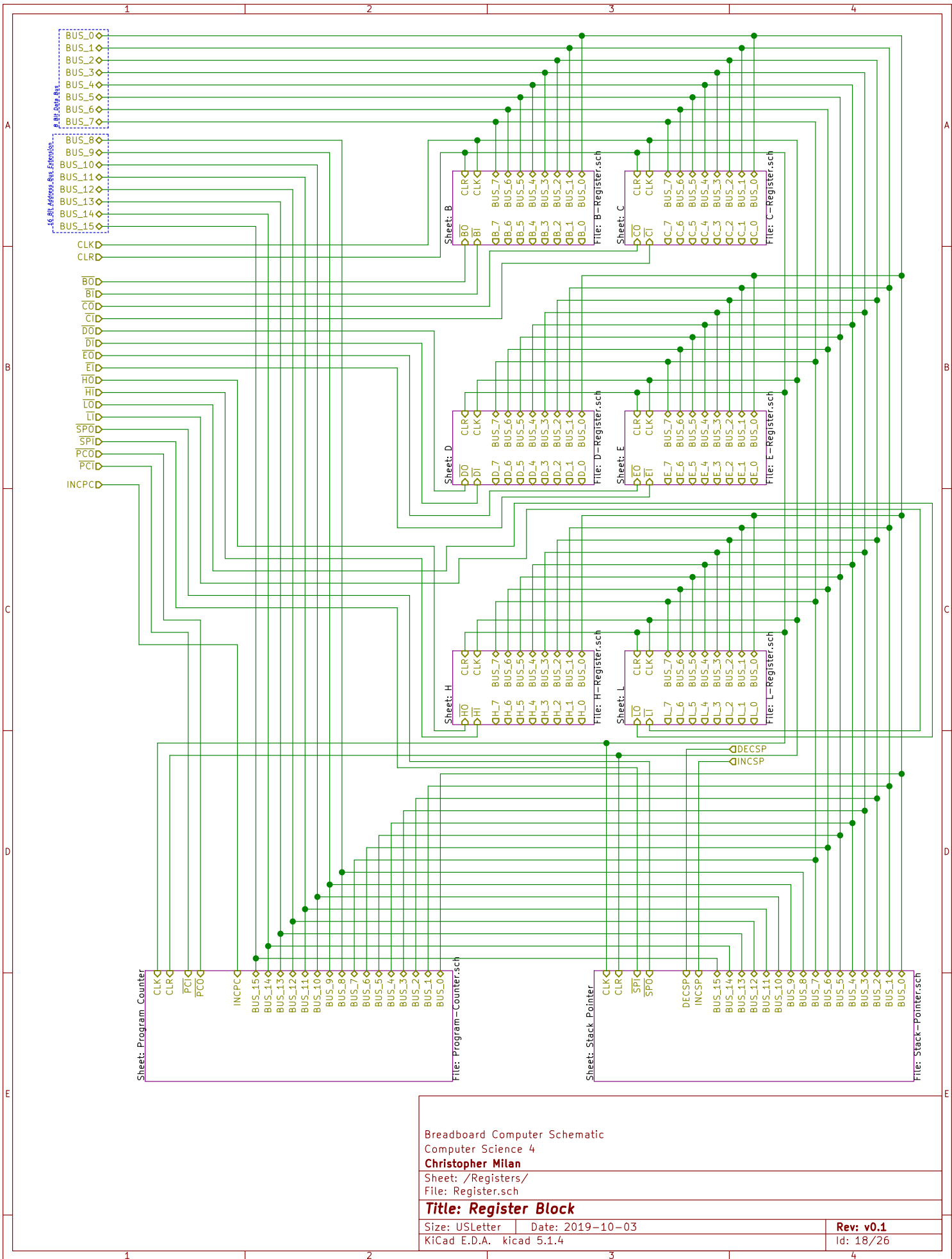
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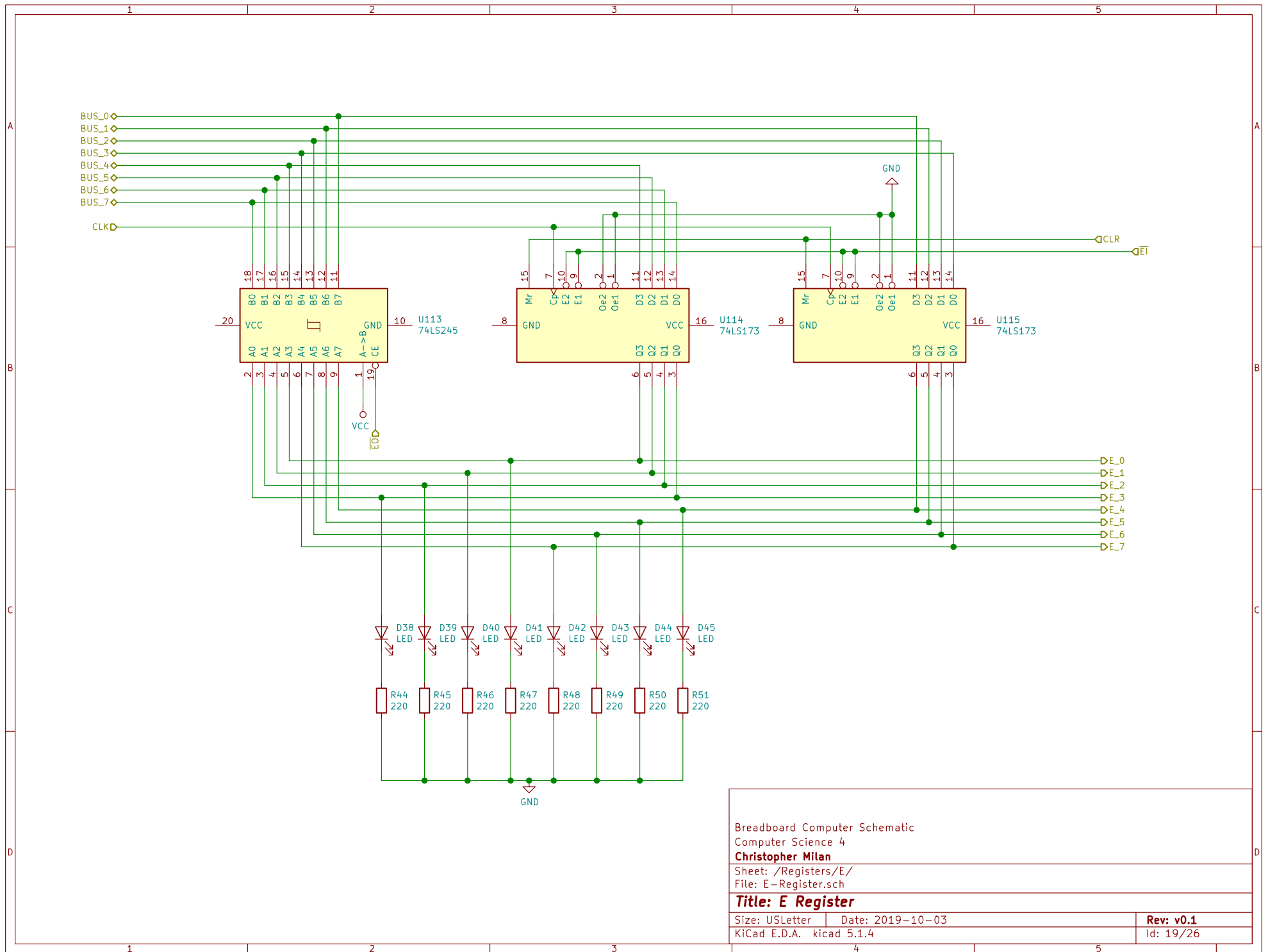
Date: 2019-10-03

Rev: v0.1

KiCad E.D.A. kicad 5.1.4

Id: 17/26





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Sheet: /Registers/E/
File: E-Register.sch

Title: E Register

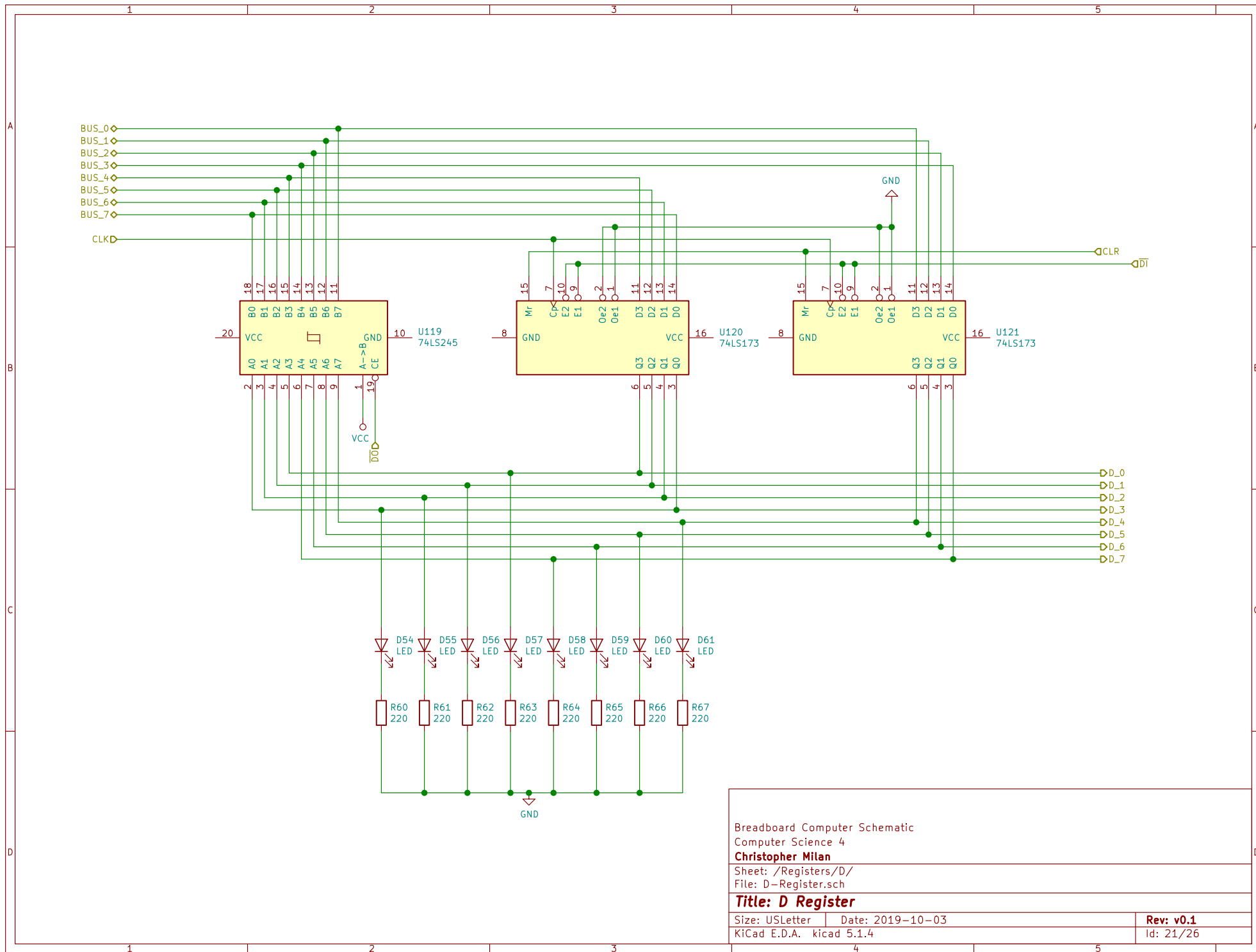
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KiCad E.D.A. kicad 5.1.4

Rev: v0.1
Id: 19/26



Size: USLetter	Date: 2019-10-03
KiCad E.D.A. kicad 5.1.4	

Rev: v0.1
Id: 20/26



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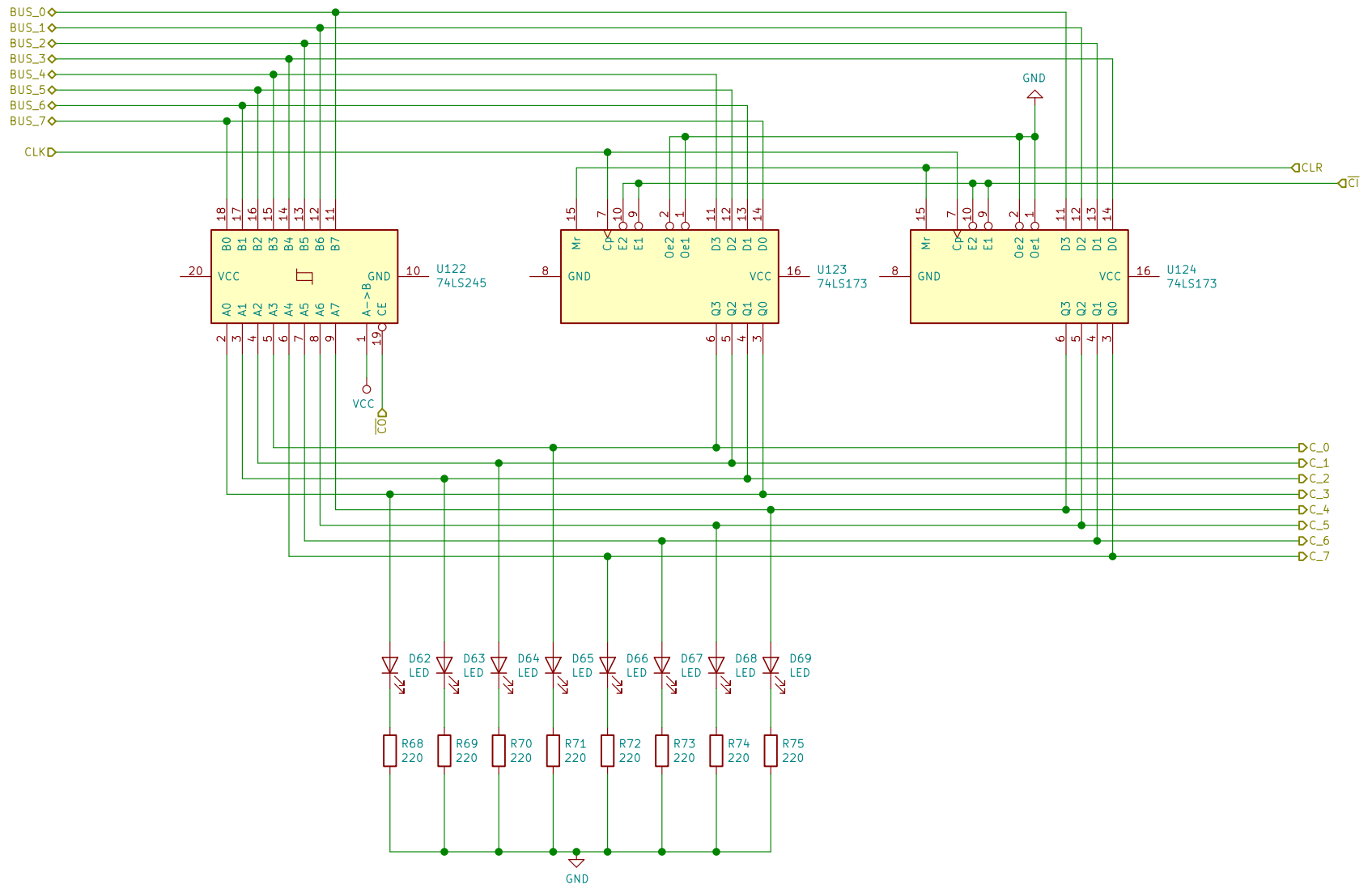
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Sheet: /Registers/D/
File: D-Register.sch

Title: D Register

Size: USLetter | Date: 2019-10-03
KiCad E.D.A. kicad 5.1.4

Rev: v0.1
Id: 21/26



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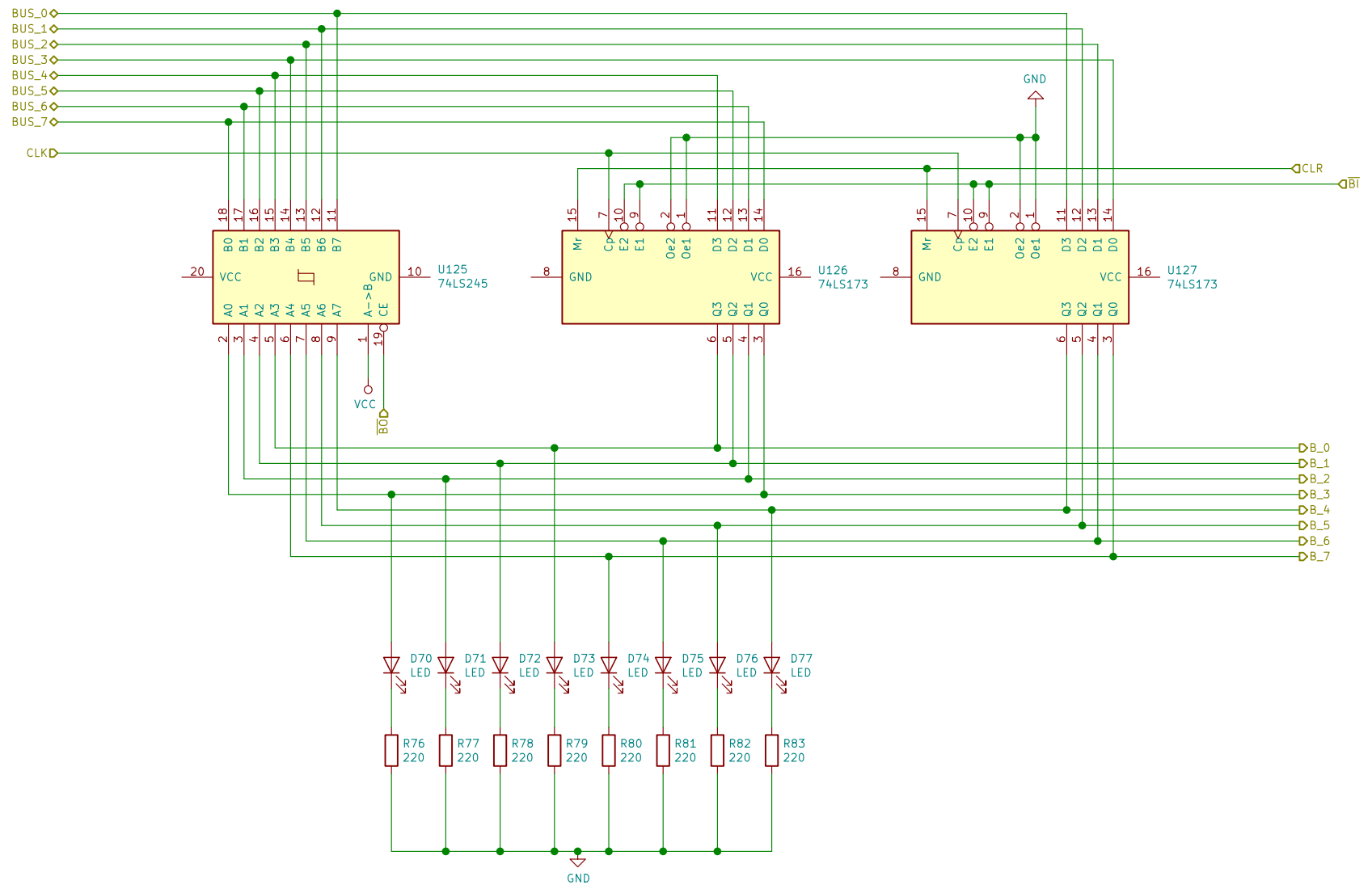
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Sheet: /Registers/C/
File: C-Register.sch

Title: C Register

Size: USLetter | Date: 2019-10-03
KiCad E.D.A. kicad 5.1.4

Rev: v0.1
Id: 22/26



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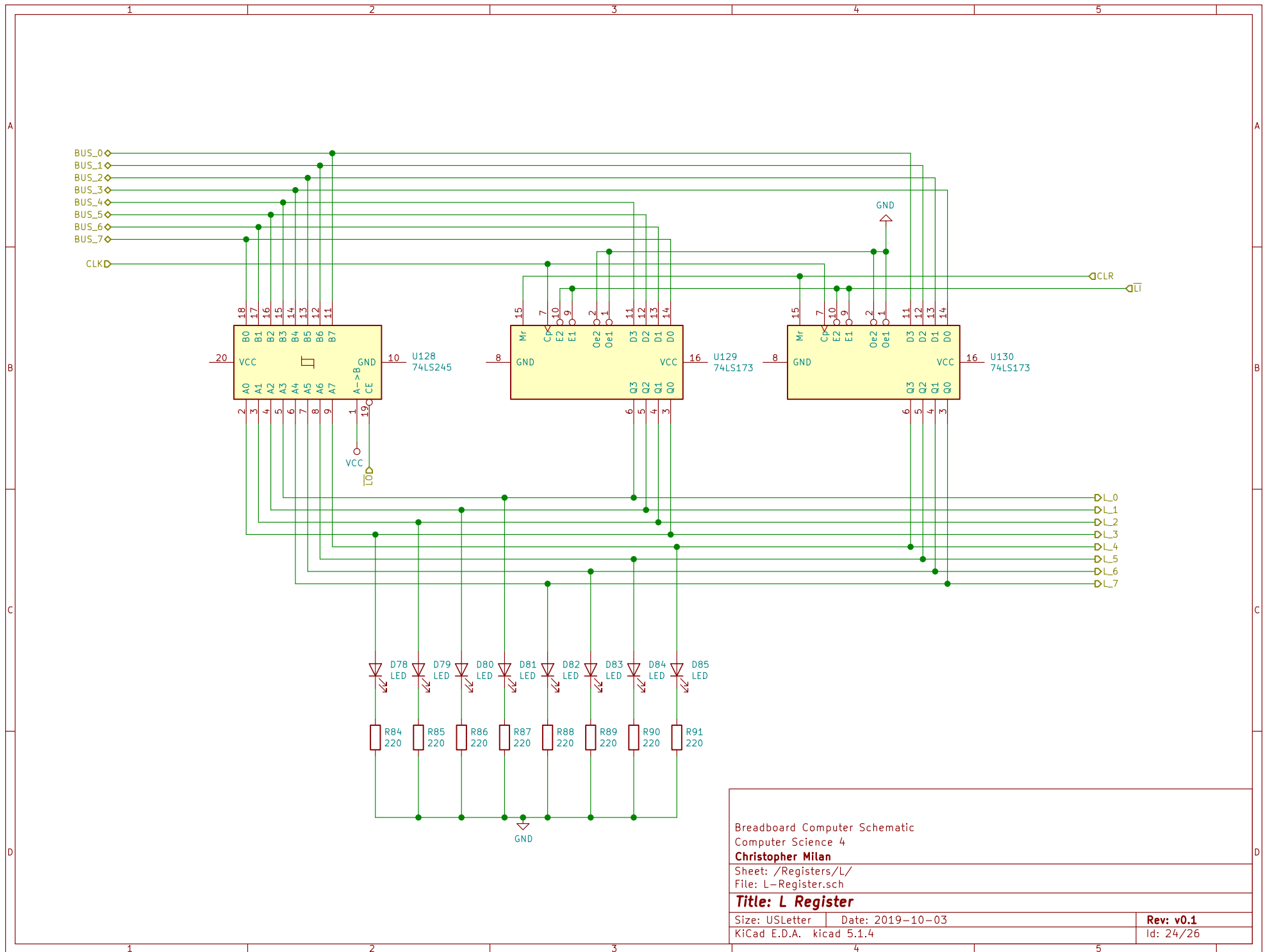
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Sheet: /Registers/B/
File: B-Register.sch

Title: B Register

Size: USLetter | Date: 2019-10-03
KiCad E.D.A. kicad 5.1.4

Rev: v0.1
Id: 23/26



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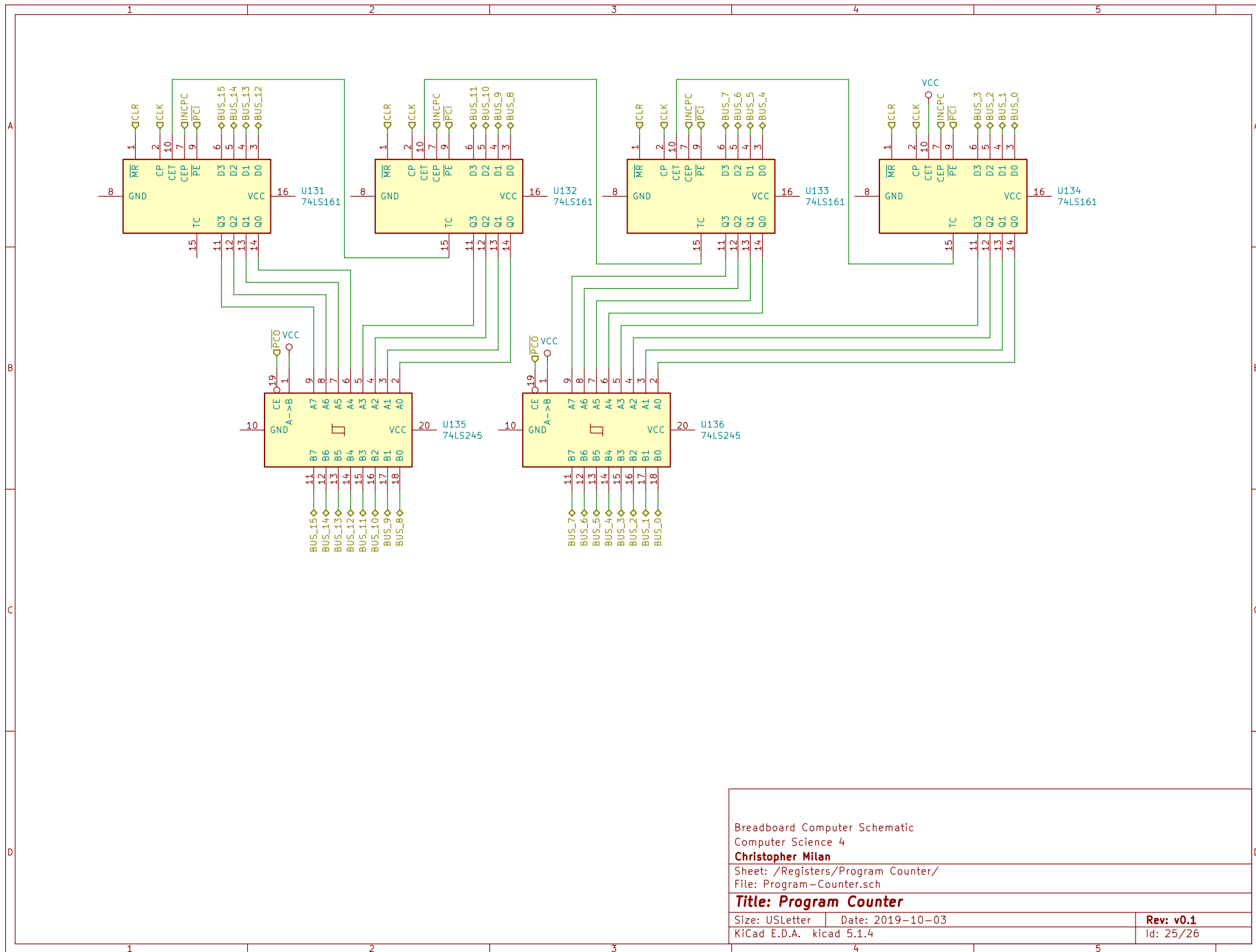
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Sheet: /Registers/L/
File: L-Register.sch

Title: L Register

Size: USLetter | Date: 2019-10-03
KiCad E.D.A. | kicad 5.1.4

Rev: v0.1
Id: 24/26



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Sheet: /Registers/Program Counter/
File: Program-Counter.sch

Title: Program Counter

Size: USLetter | Date: 2019-10-03
KiCad E.D.A. kicad 5.1.4

Rev: v0.1
Id: 25/26

