

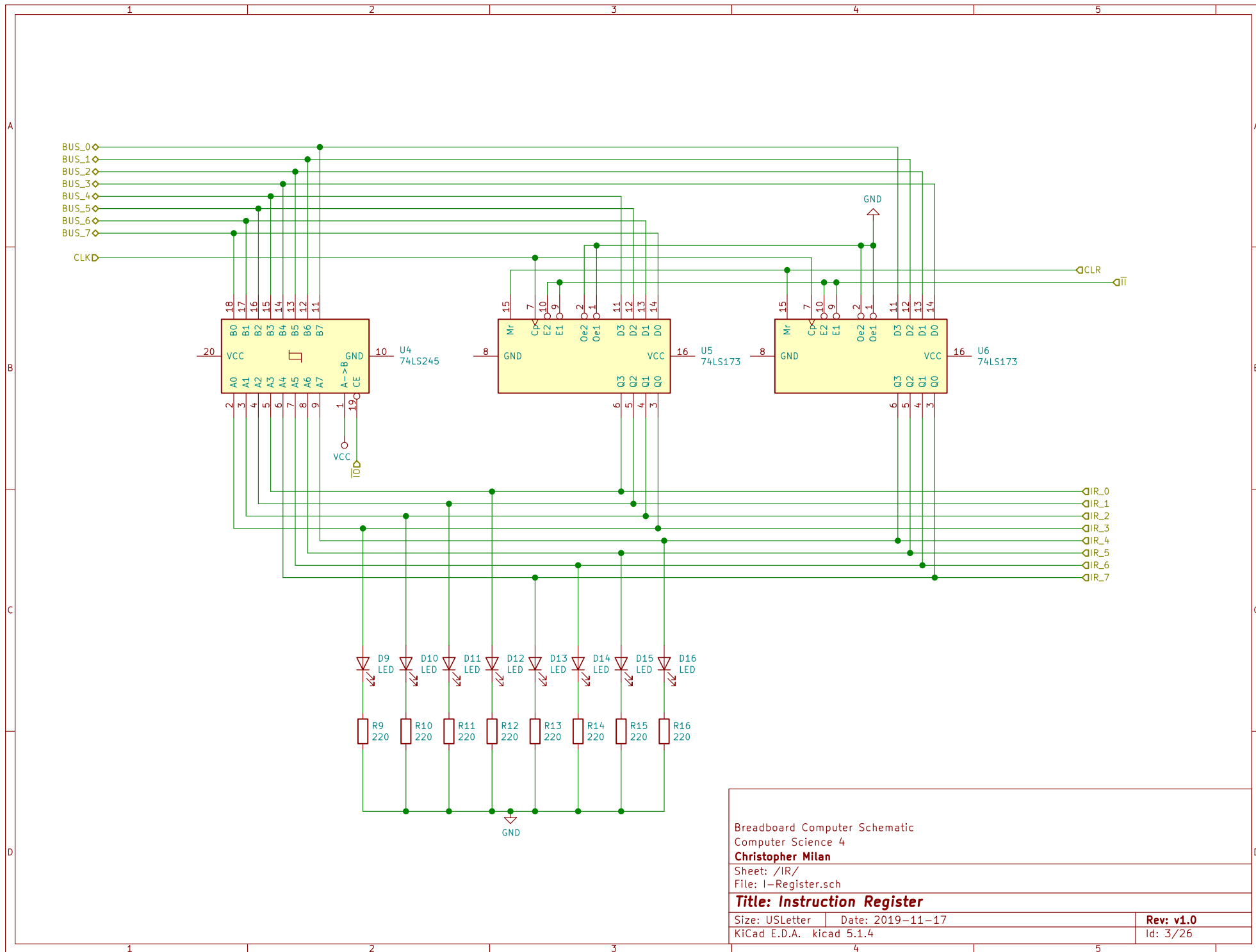
Breadboard Computer Schematic
Computer Science 4
Christopher Milan

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

Title: Accumulator

Size: USLetter | Date: 2019-11-17
KiCad E.D.A. | kicad 5.1.4

Rev: v1.0
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Sheet: //IR//

File: I-Register.sch

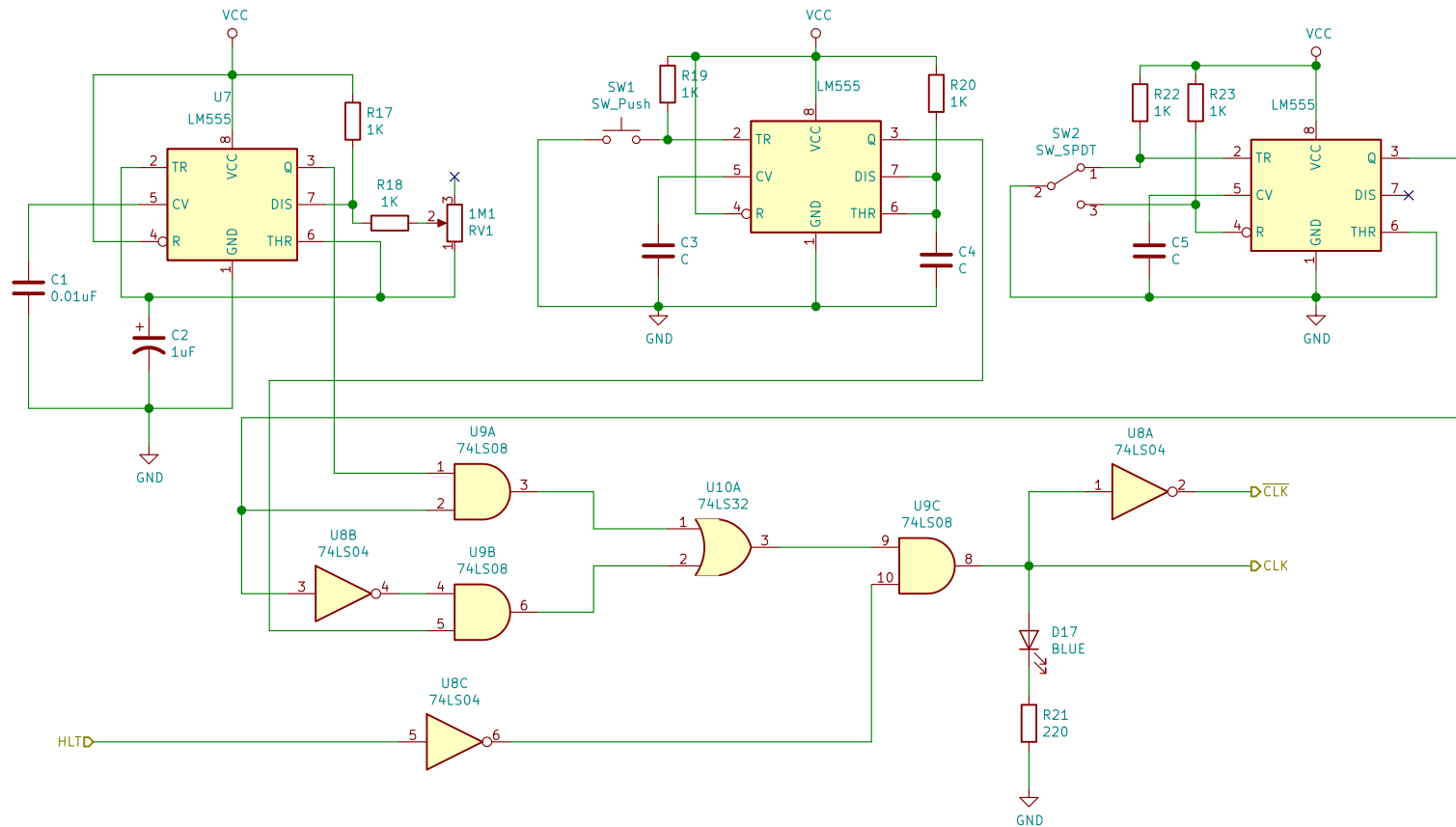
Title: Instruction Register

Size: USLetter Date: 2019-11-17

KiCad E.D.A. kicad 5.1.4

Rev: v1.0

Id: 3/26



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Computer Science 4

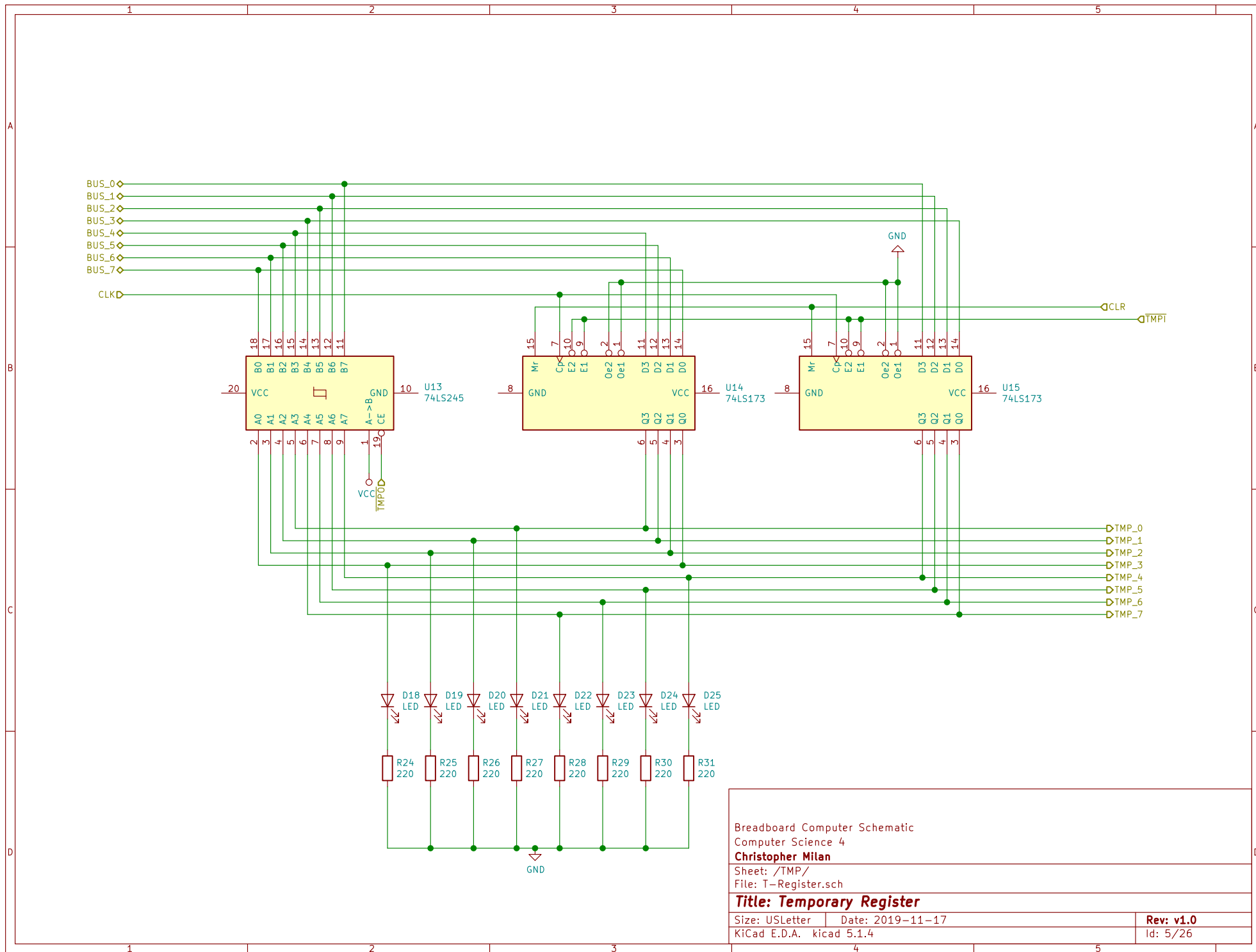
Christopher Milan

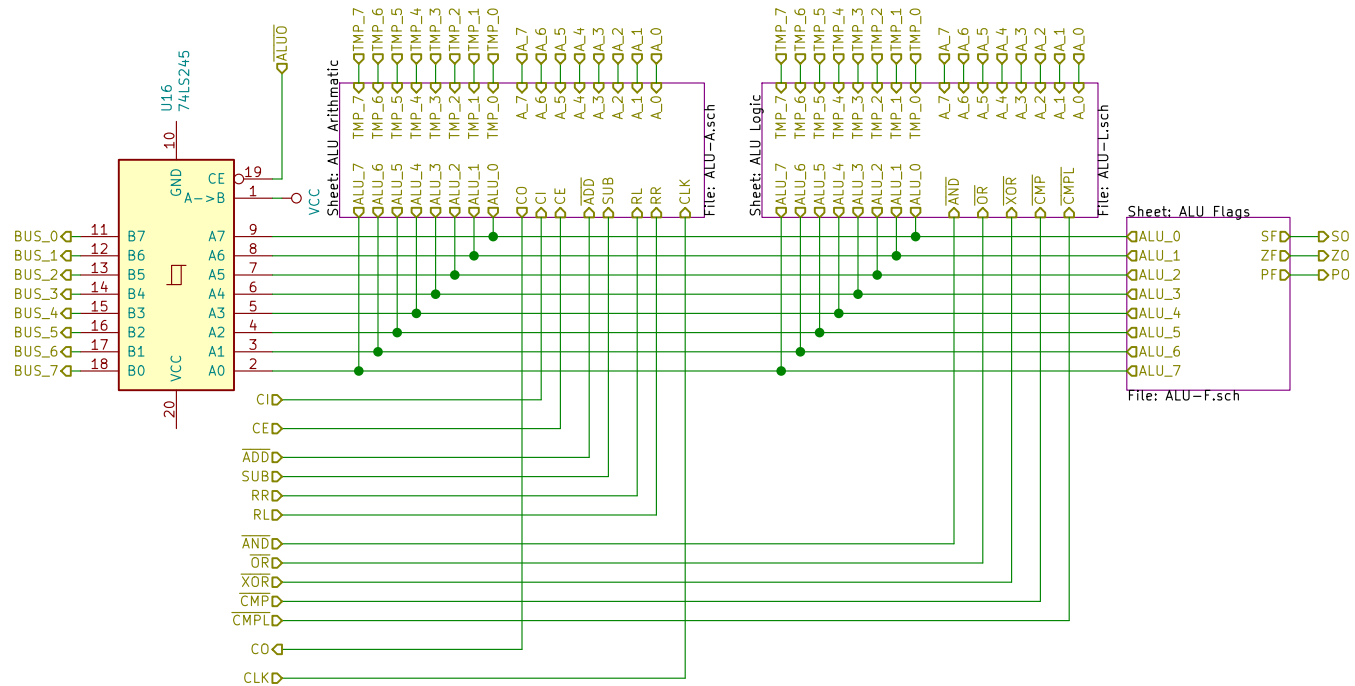
Sheet: /Clock/
File: clock.sch

Title: Clock

Size: USLetter Date: 2019-11-17
KiCad E.D.A. kicad 5.1.4

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Id: 4/26





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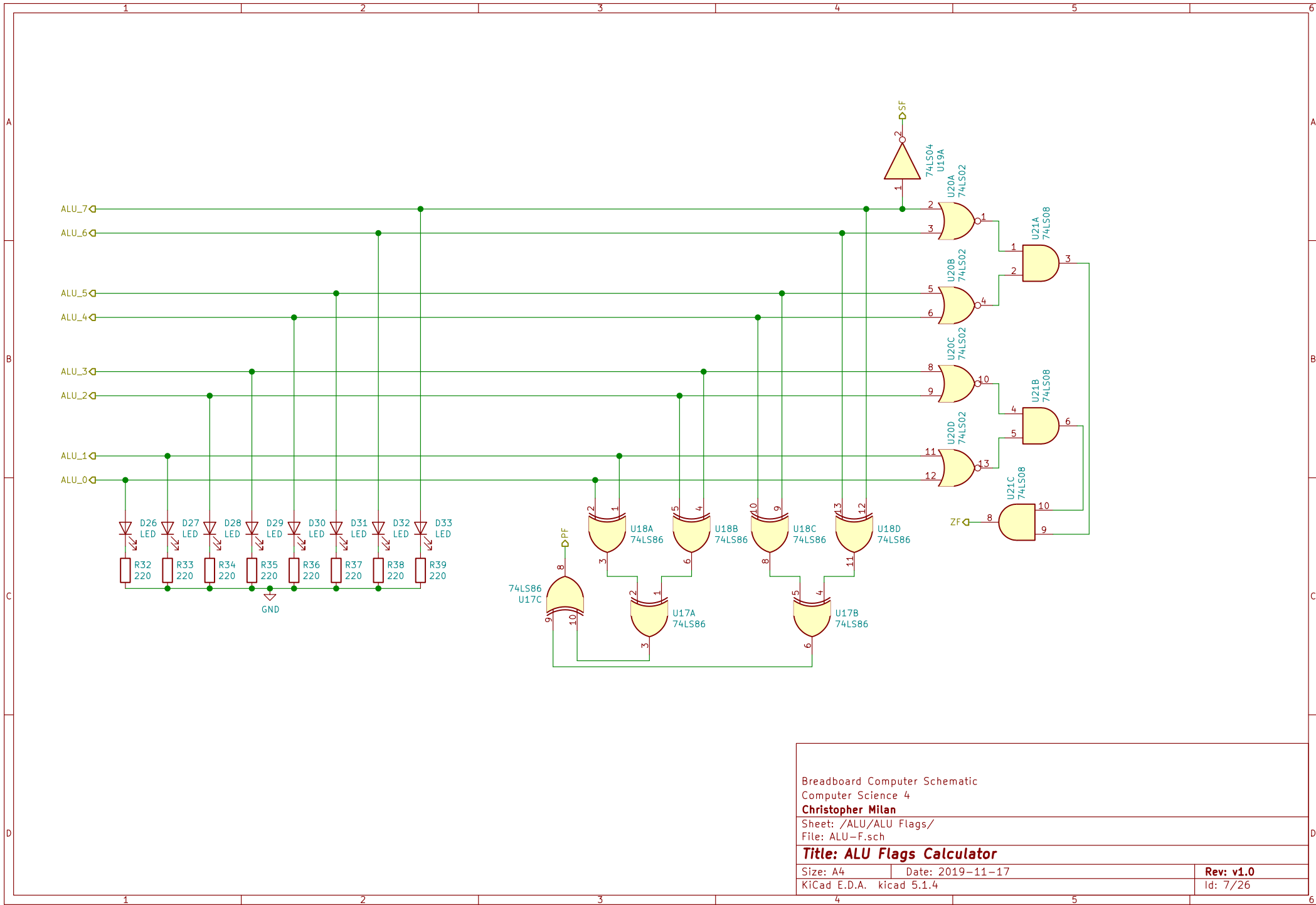
Christopher Milan

Sheet: /ALU/
File: ALU.sch

Title: Arithmetic Logic Unit

Size: USLetter Date: 2019-11-17
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Sheet: /ALU/ALU Flags/

File: ALU-F.sch

Title: ALU Flags Calculator

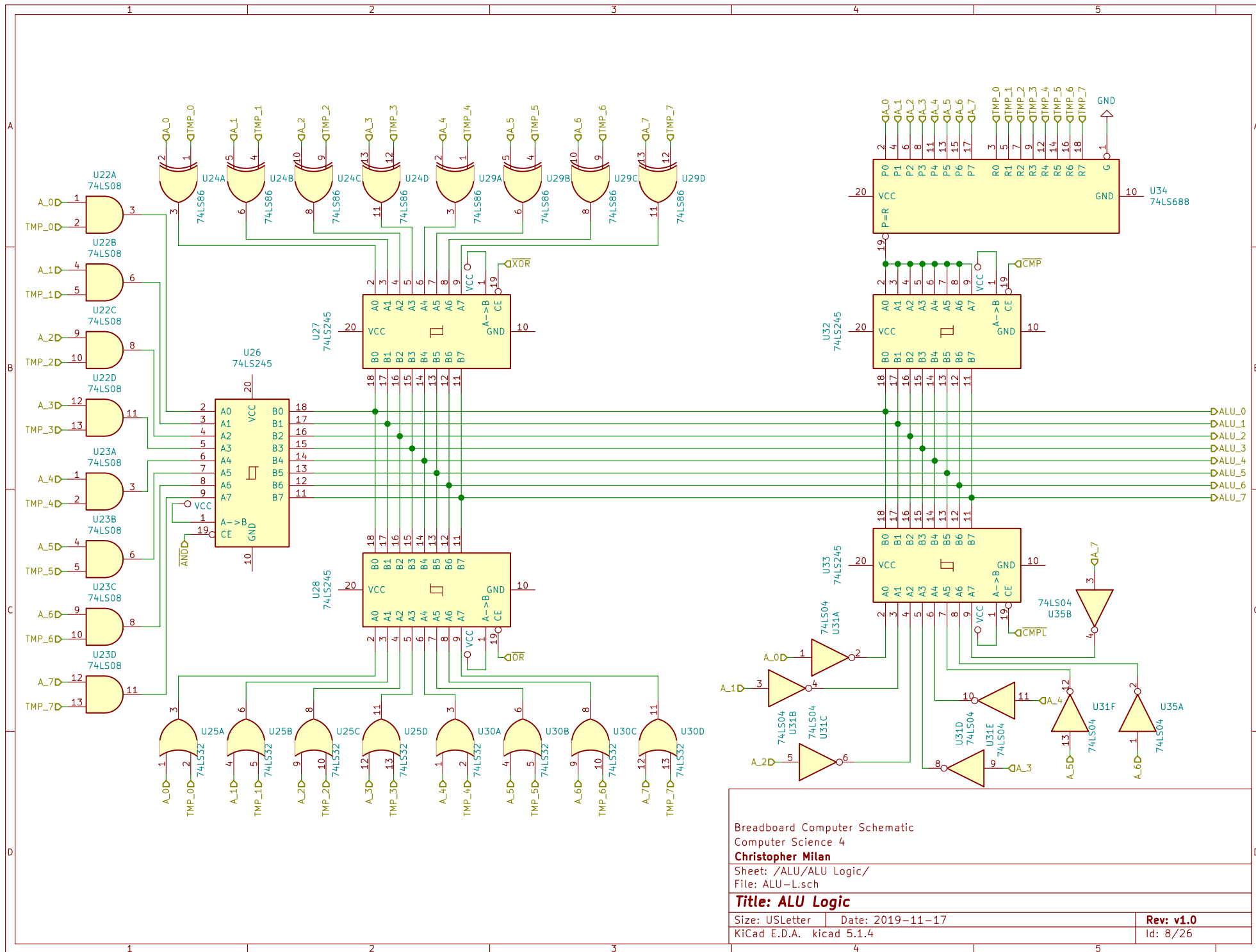
Size: A4

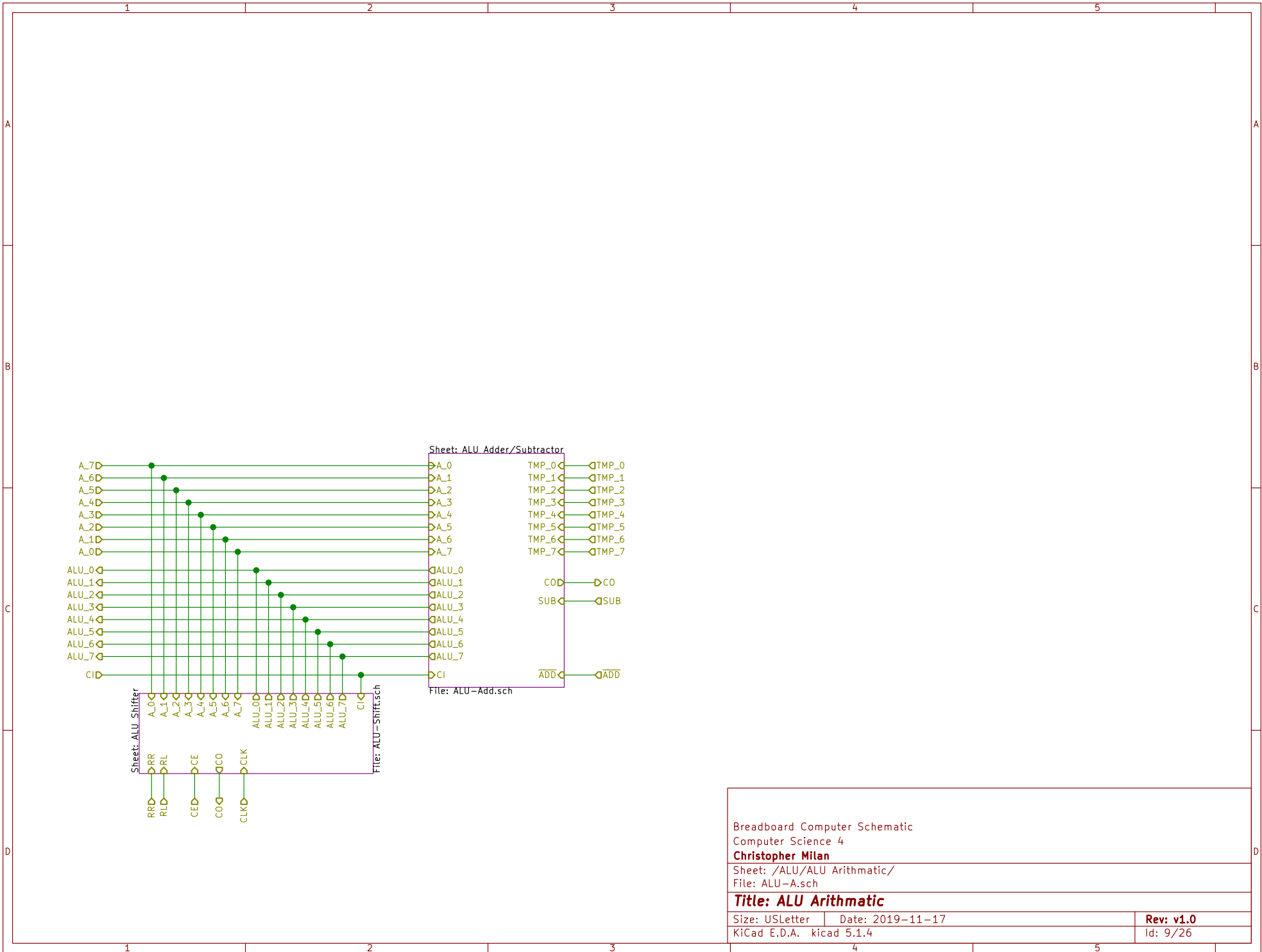
Date: 2019-11-17

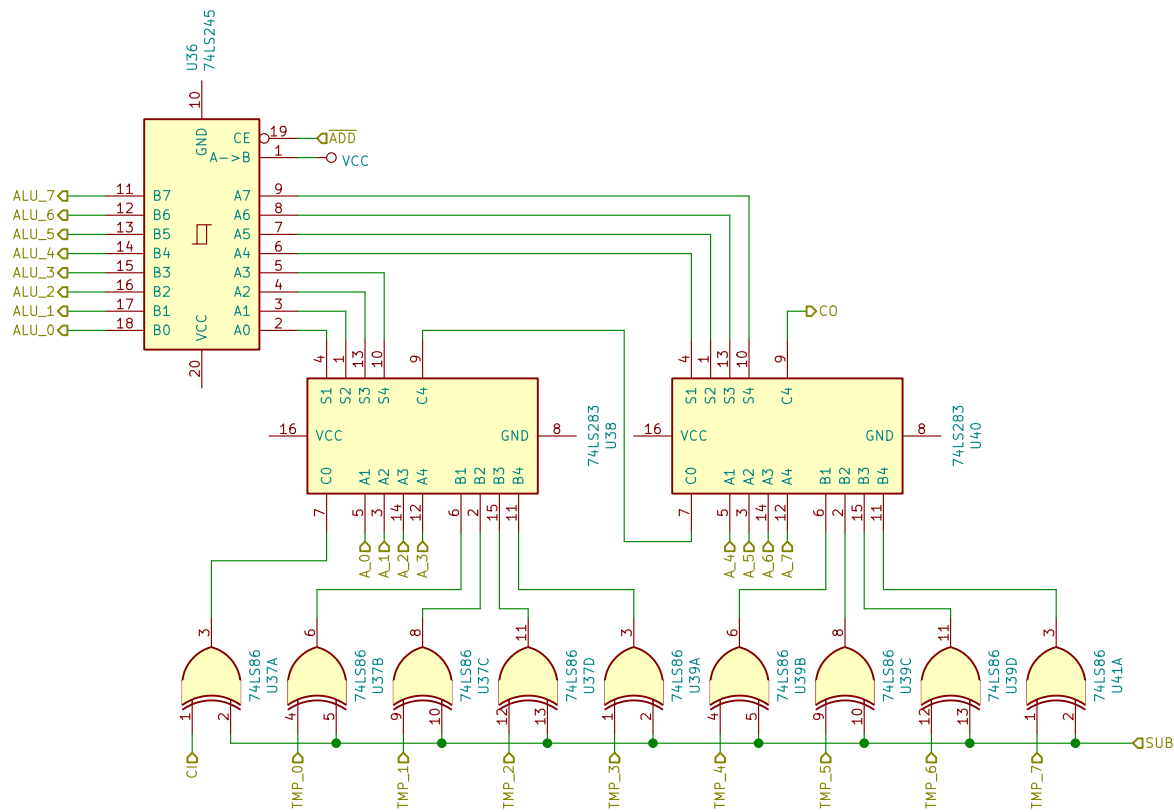
KiCad E.D.A. kicad 5.1.4

Rev: v1.0

Id: 7/26







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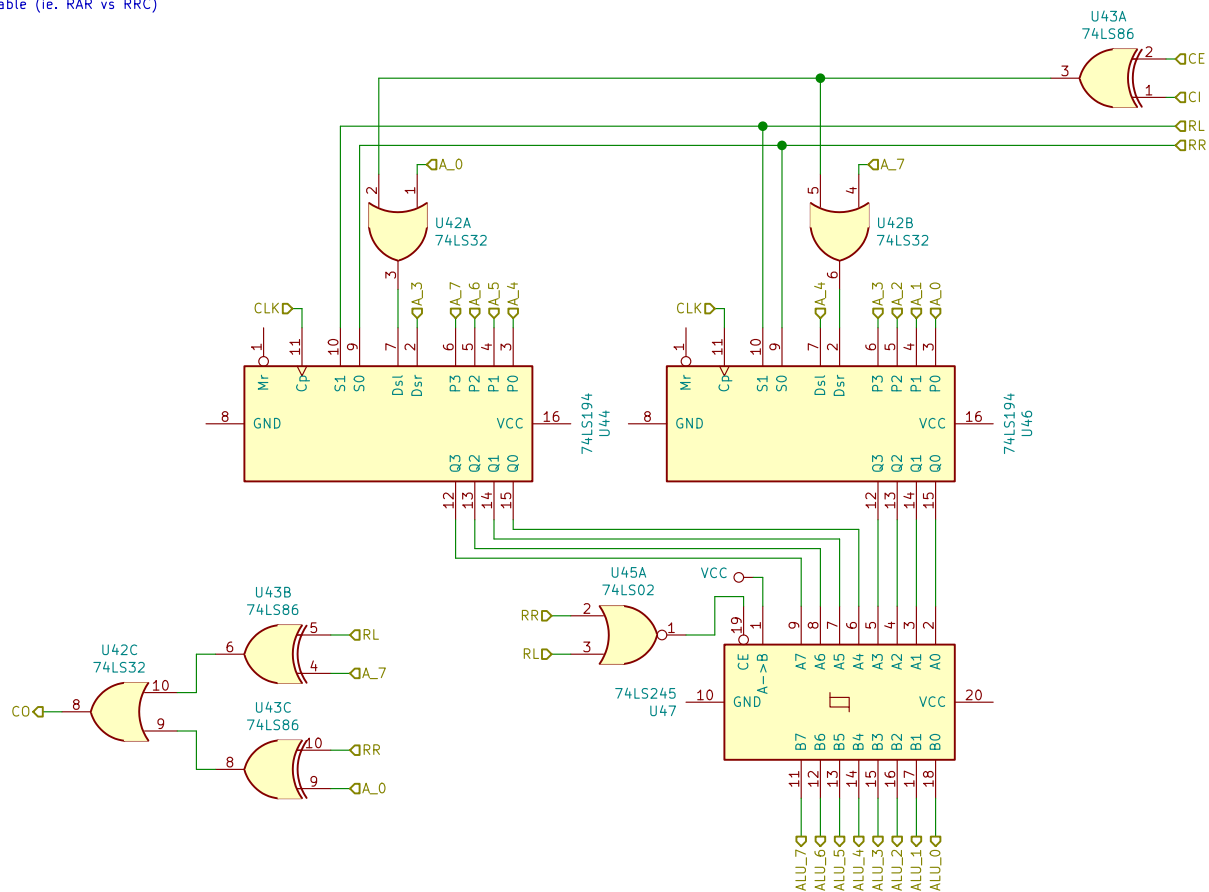
Sheet: /ALU/ALU Arithmetic/ALU Adder/Subtractor/
File: ALU-Add.sch

Title: ALU Adder/Subtractor

Size: USLetter Date: 2019-11-17
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CI - Carry Flag In
CO - Carry Flag Out
CE - Carry Enable (ie. RAR vs RRC)



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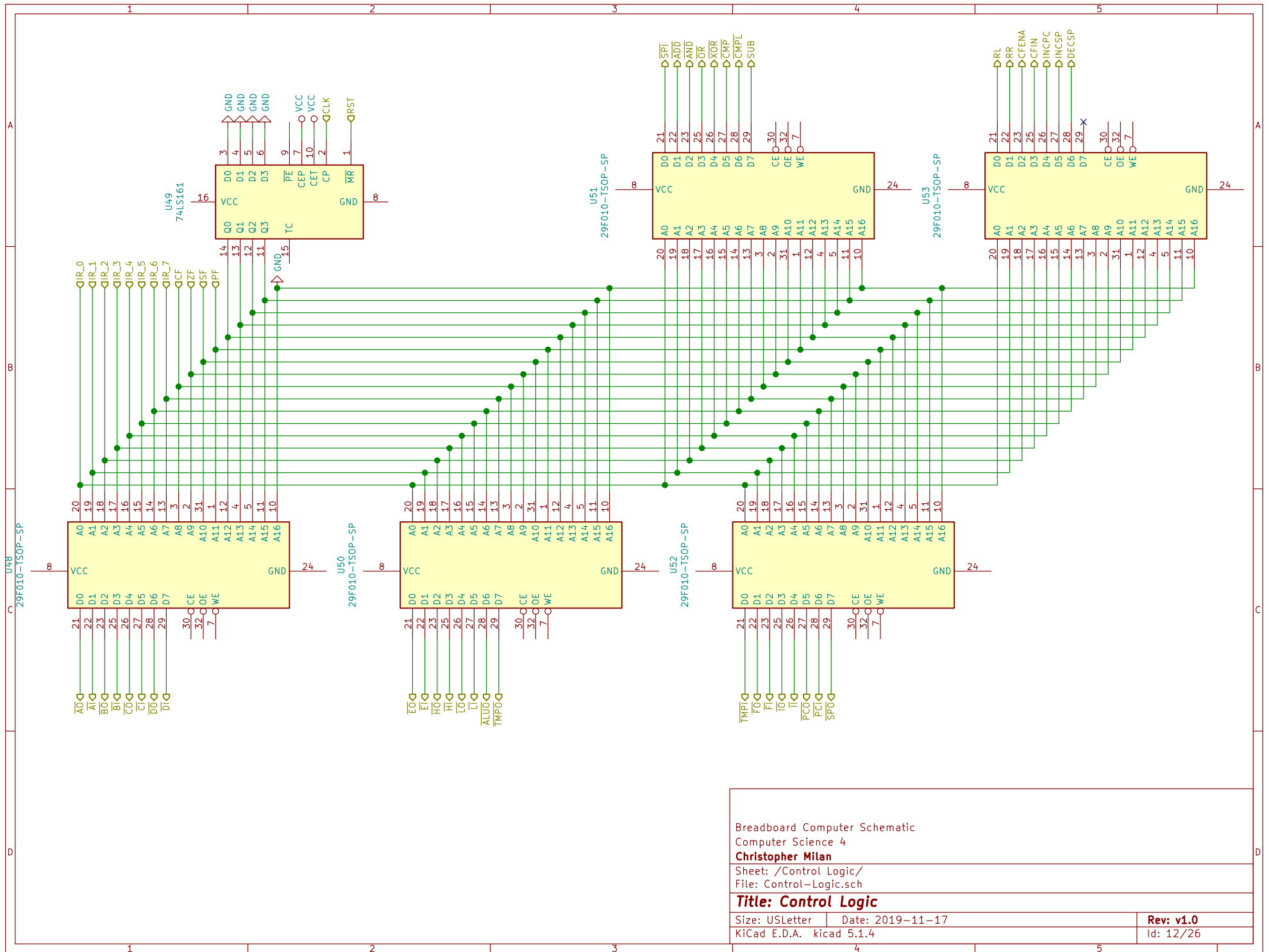
Christopher Milan

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

Title: ALU Shifter

Size: USLetter Date: 2019-11-17
KiCad E.D.A. kicad 5.1.4

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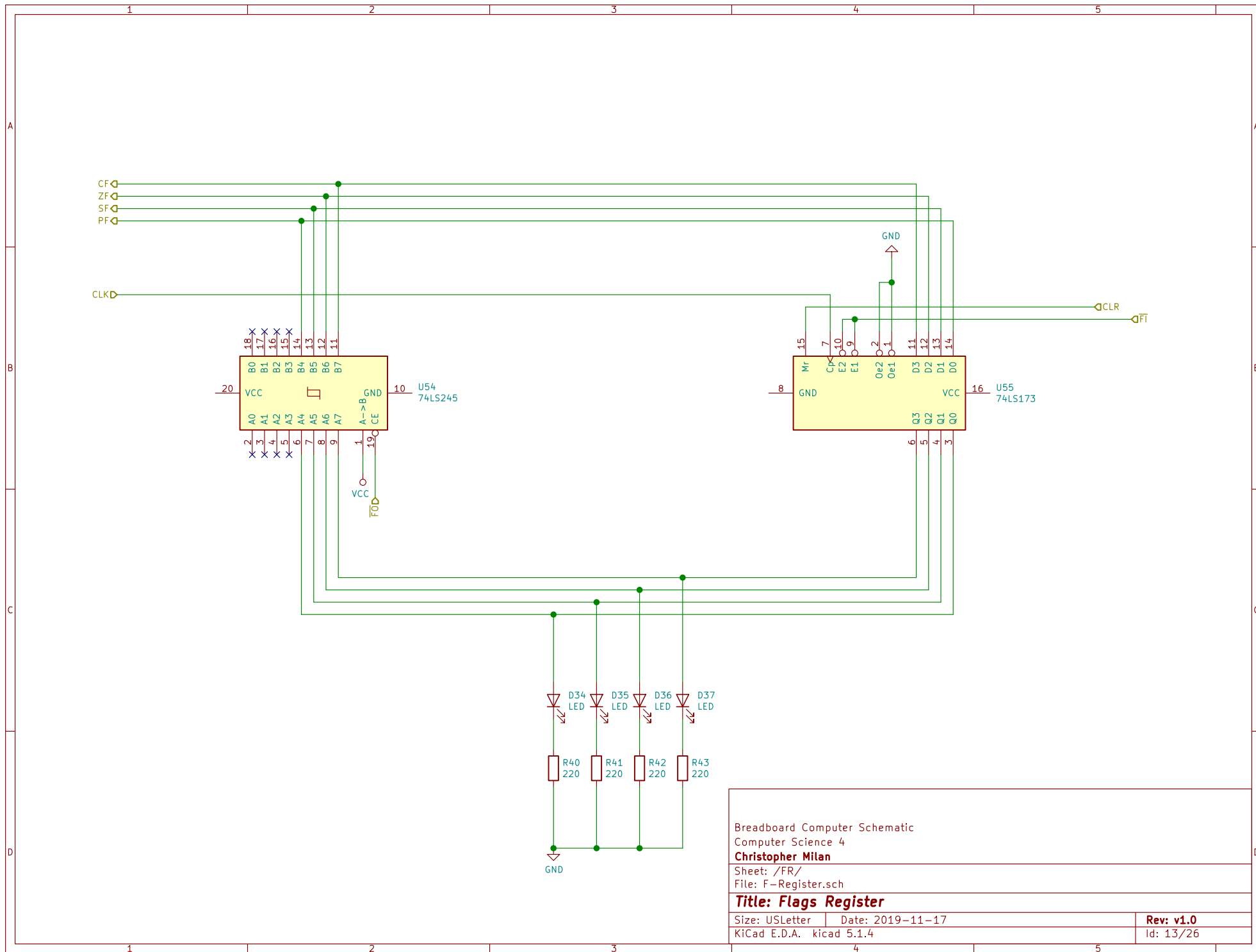
Christopher Milan

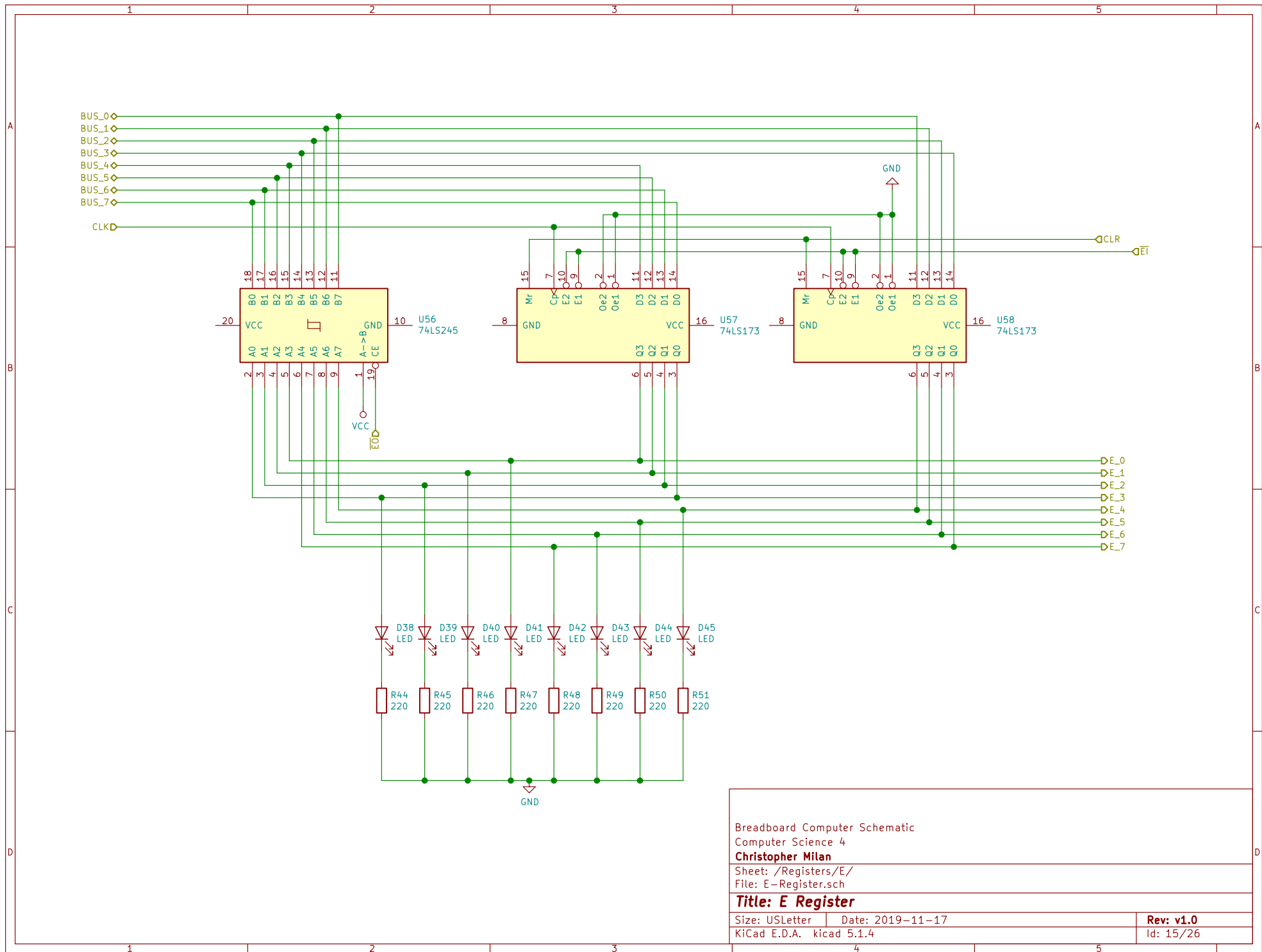
Sheet: /Control Logic/
File: Control-Logic.sch

Title: Control Logic

Size: USLetter | Date: 2019-11-17
KiCad E.D.A. kicad 5.1.4

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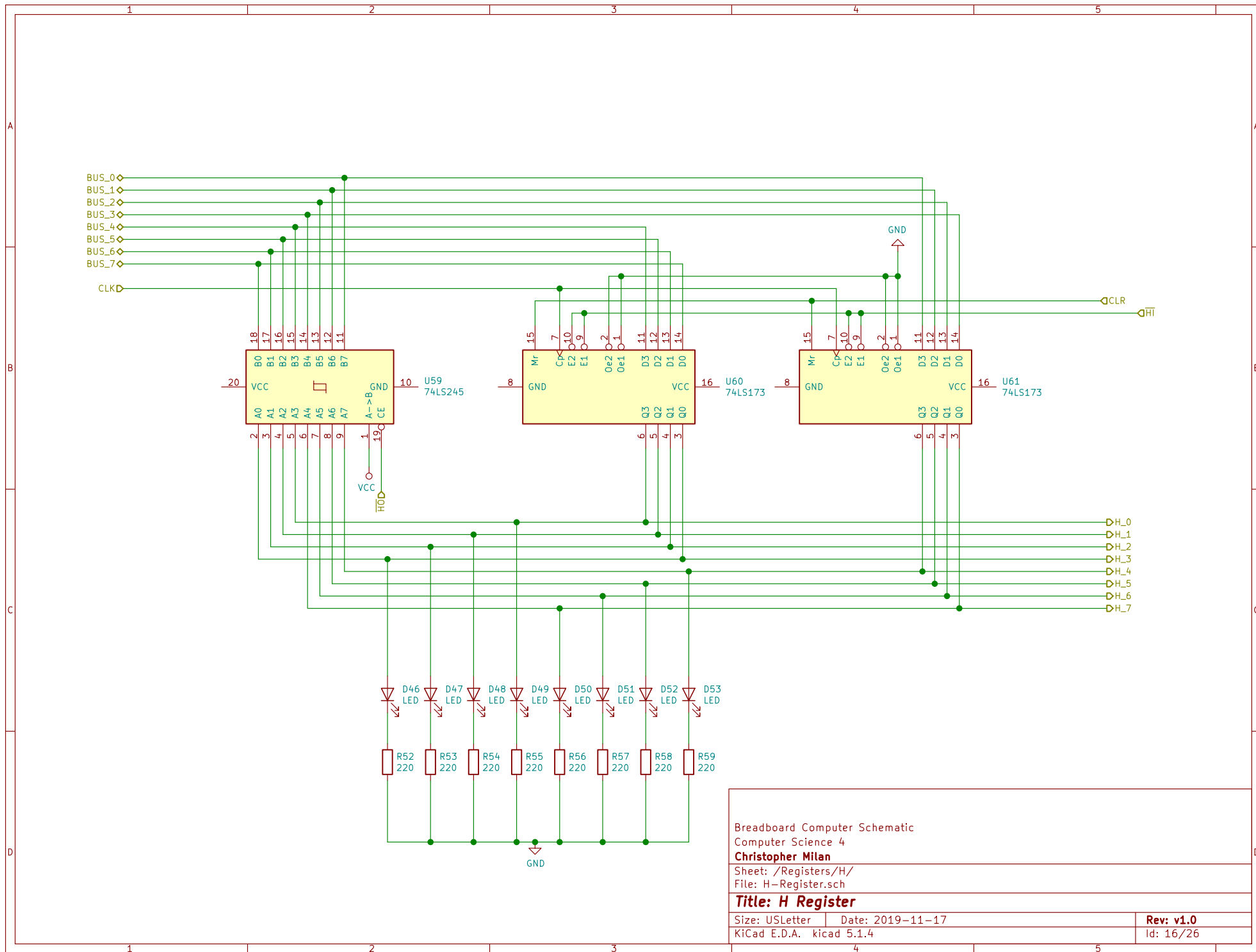
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Sheet: /Registers/E/
File: E-Register.sch

Title: E Register

Size: USLetter | Date: 2019-11-17
KiCad E.D.A. kicad 5.1.4

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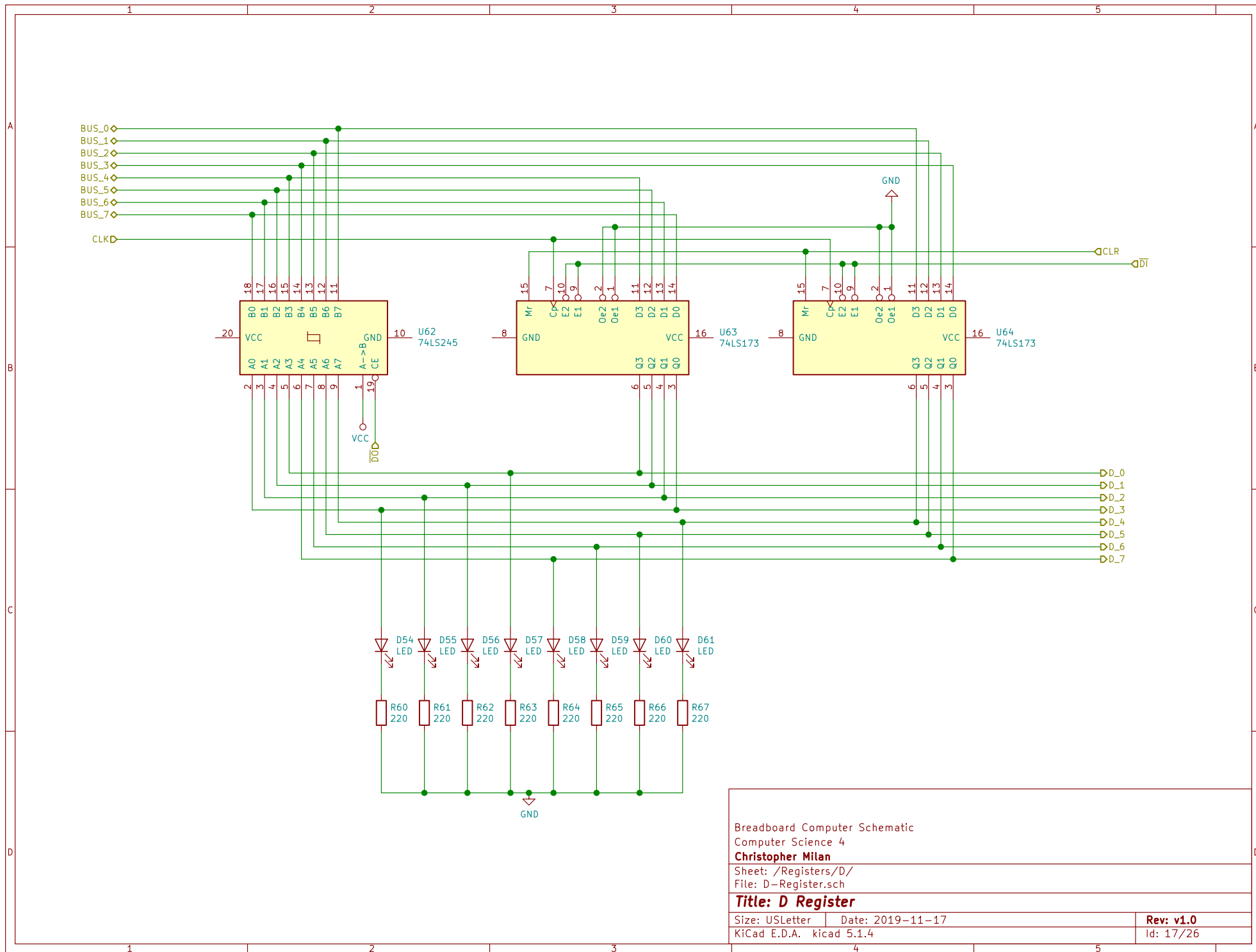
Christopher Milan

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

Title: H Register

Size: USLetter | Date: 2019-11-17
KiCad E.D.A. | kicad 5.1.4

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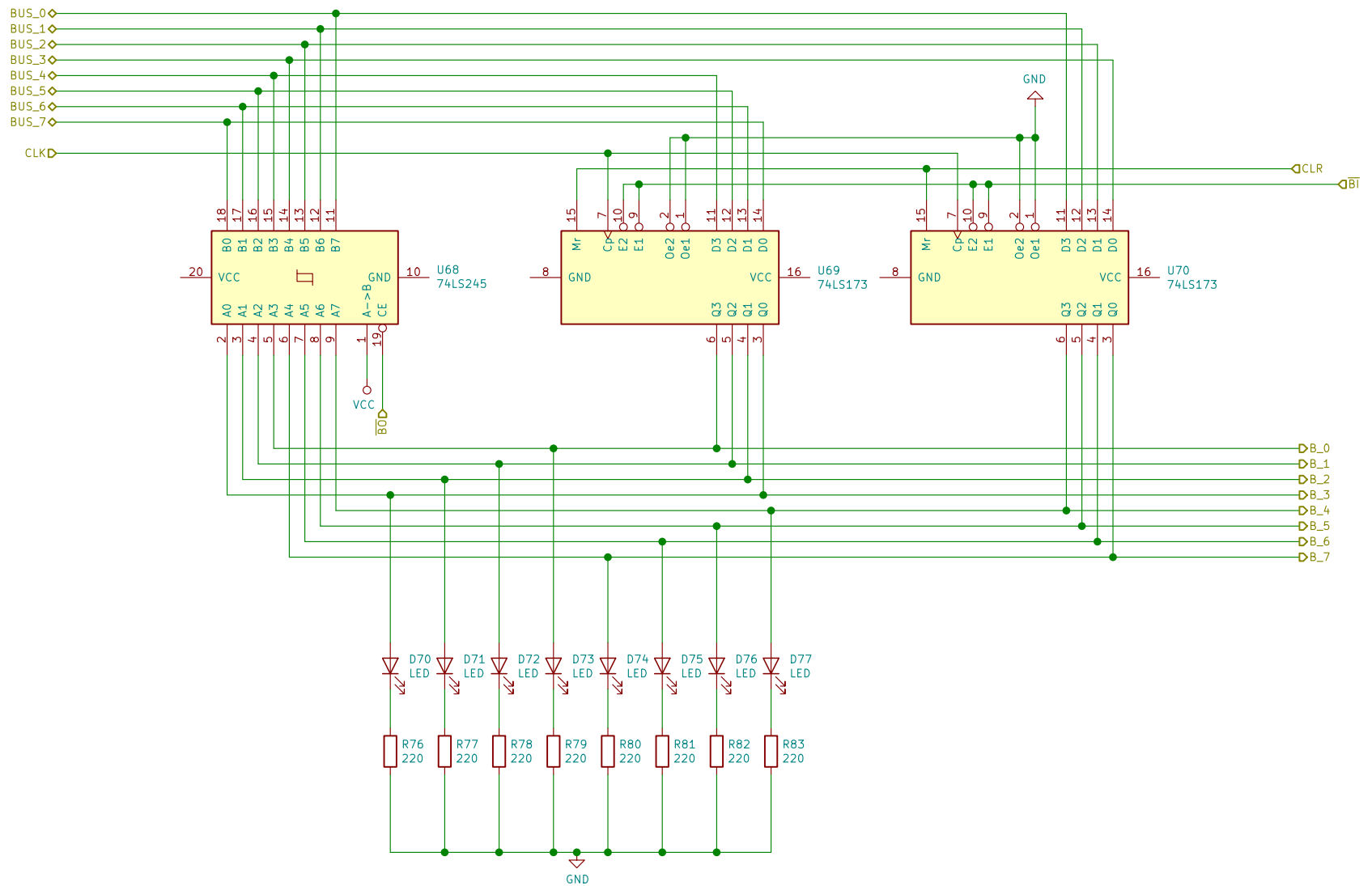
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Sheet: /Registers/D/
File: D-Register.sch

Title: D Register

Size: USLetter | Date: 2019-11-17
KiCad E.D.A. kicad 5.1.4

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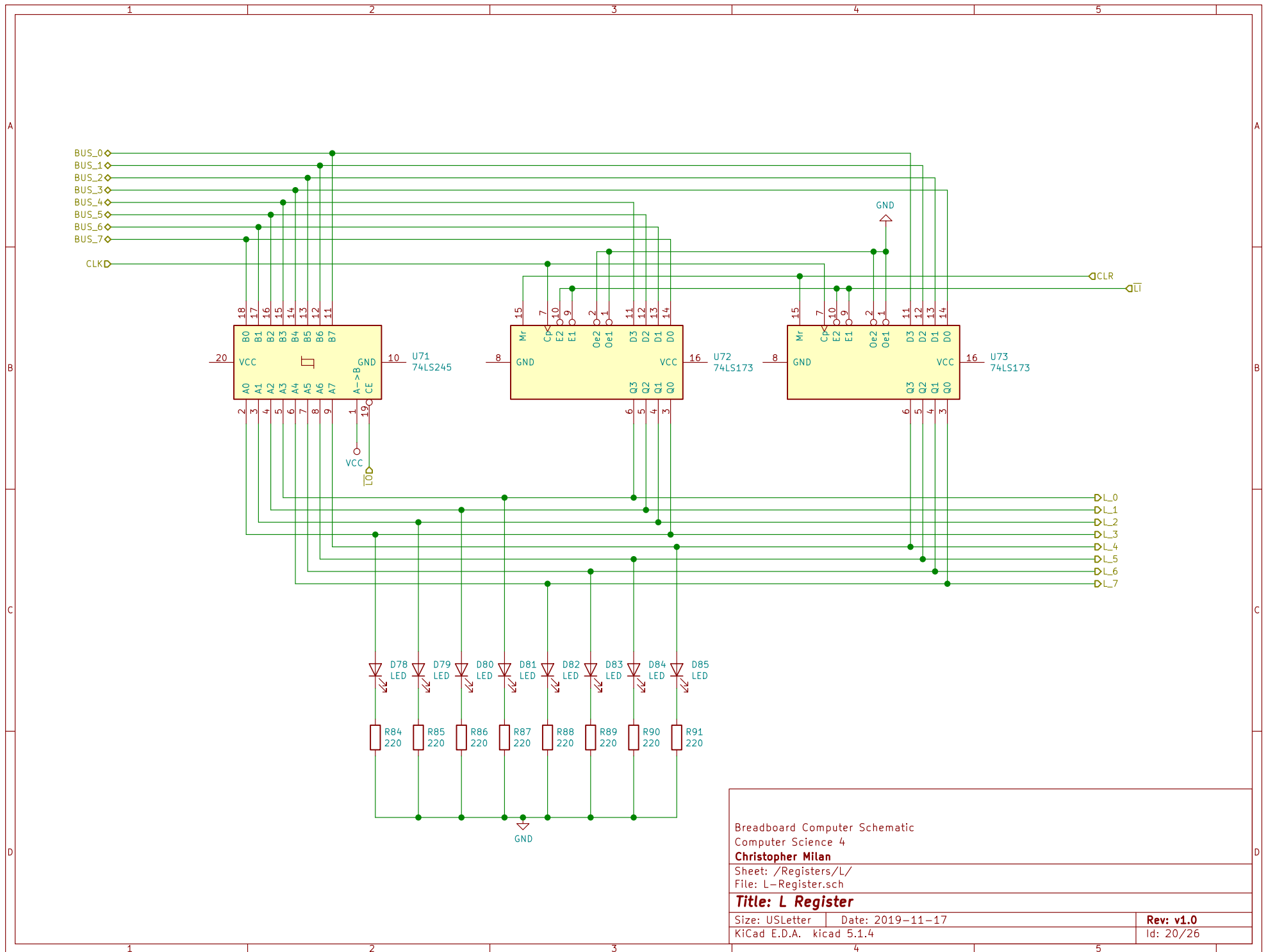
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Sheet: /Registers/B/
File: B-Register.sch

Title: B Register

Size: USLetter | Date: 2019-11-17
KiCad E.D.A. kicad 5.1.4

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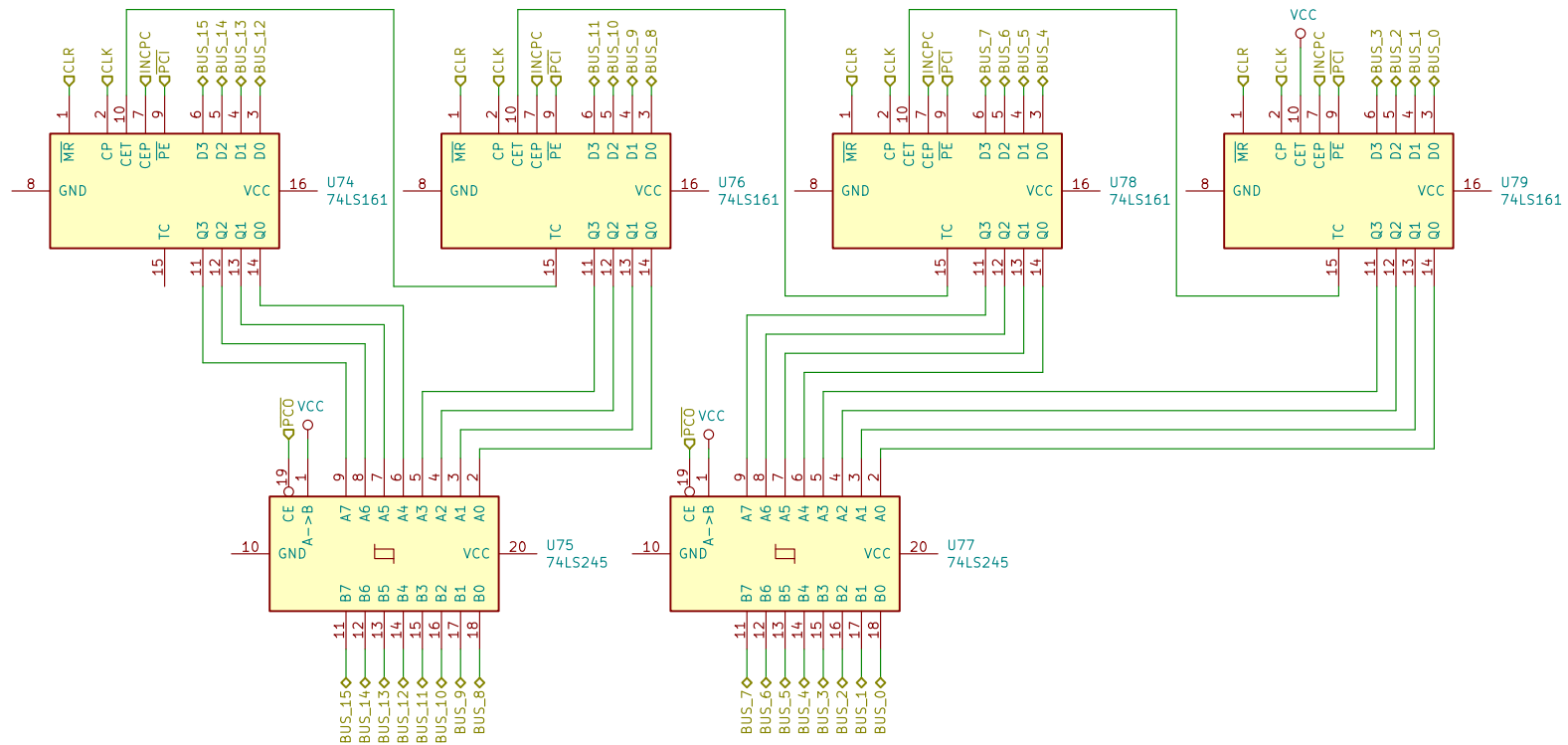
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Sheet: /Registers/L/
File: L-Register.sch

Title: L Register

Size: USLetter Date: 2019-11-17
KiCad E.D.A. kicad 5.1.4

Rev: v1.0
Id: 20/26



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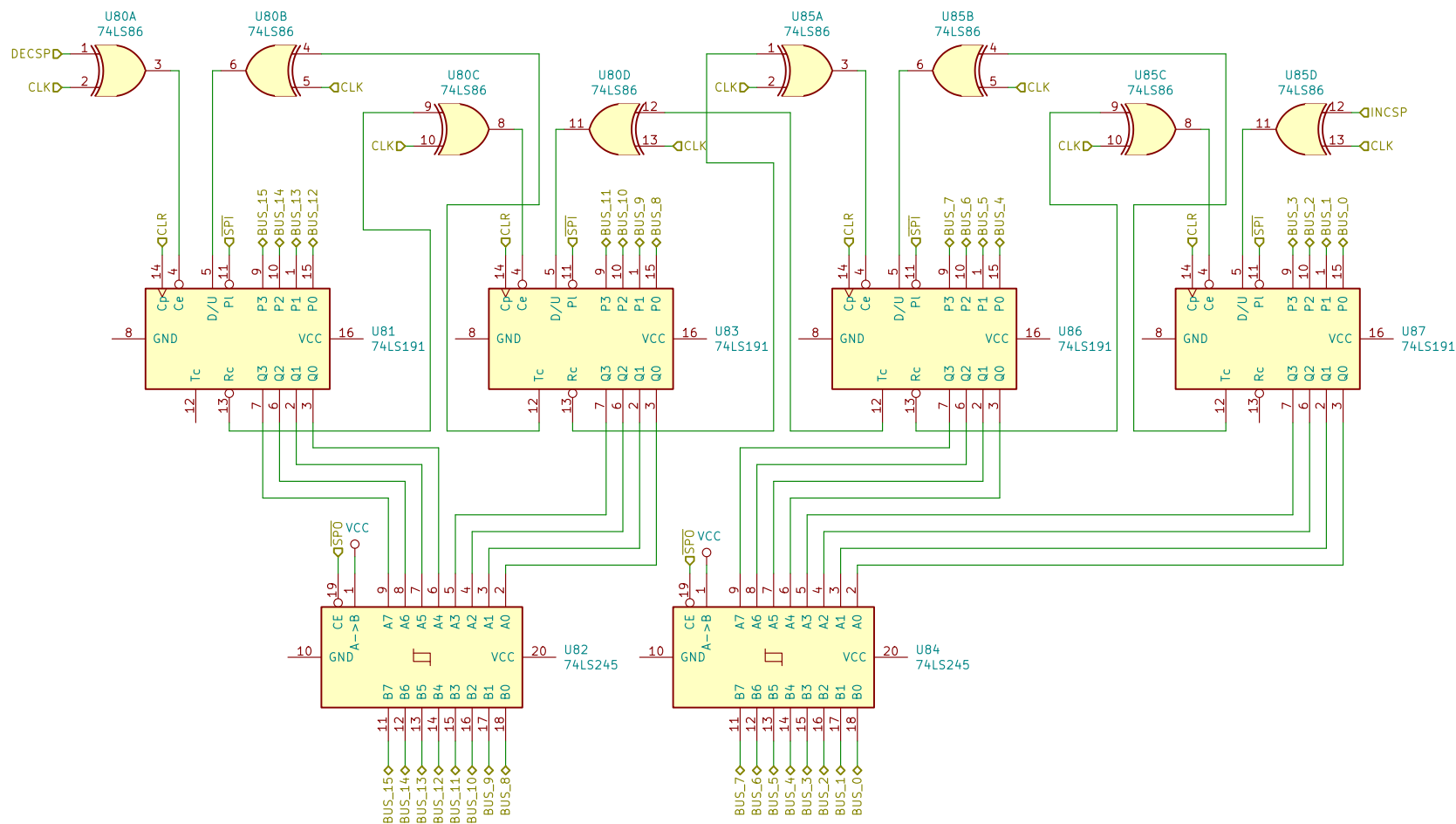
Christopher Milan

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

Title: Program Counter

Size: USLetter | Date: 2019-11-17
KiCad E.D.A. kicad 5.1.4

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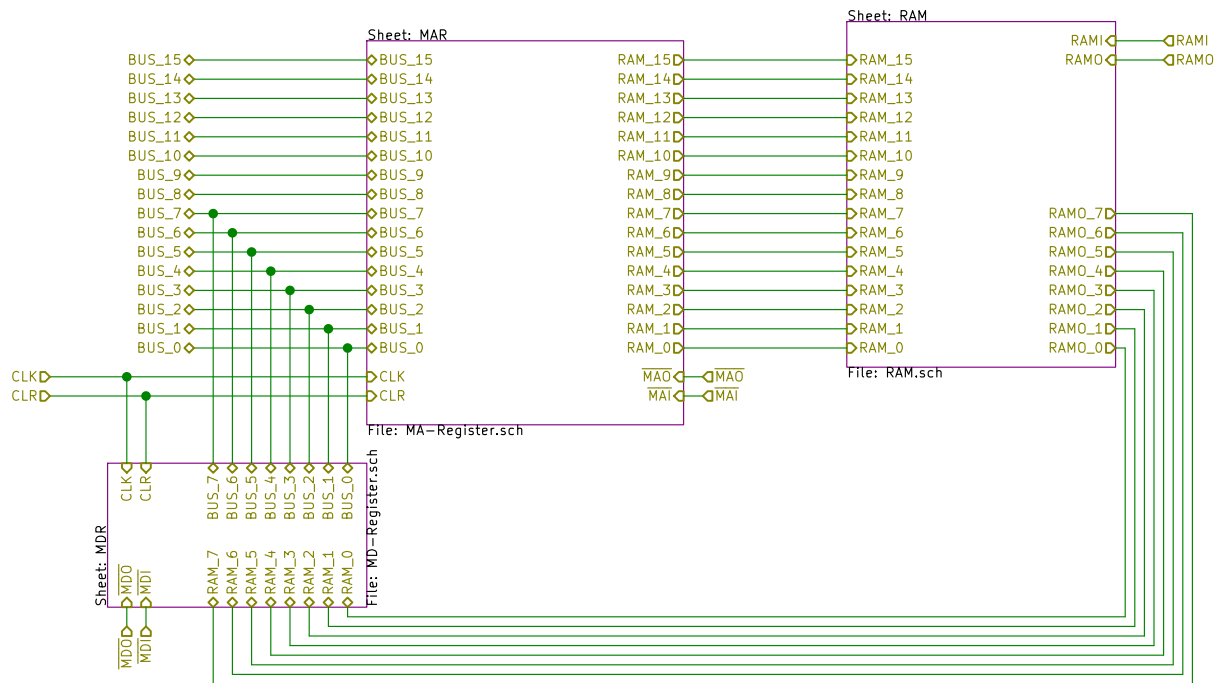
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Sheet: /Registers/Stack Pointer/
File: Stack-Pointer.sch

Title: Stack Pointer

Size: USLetter Date: 2019-11-17
KiCad E.D.A. kicad 5.1.4

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Sheet: /Memory/

File: Memory.sch

Title: Memory

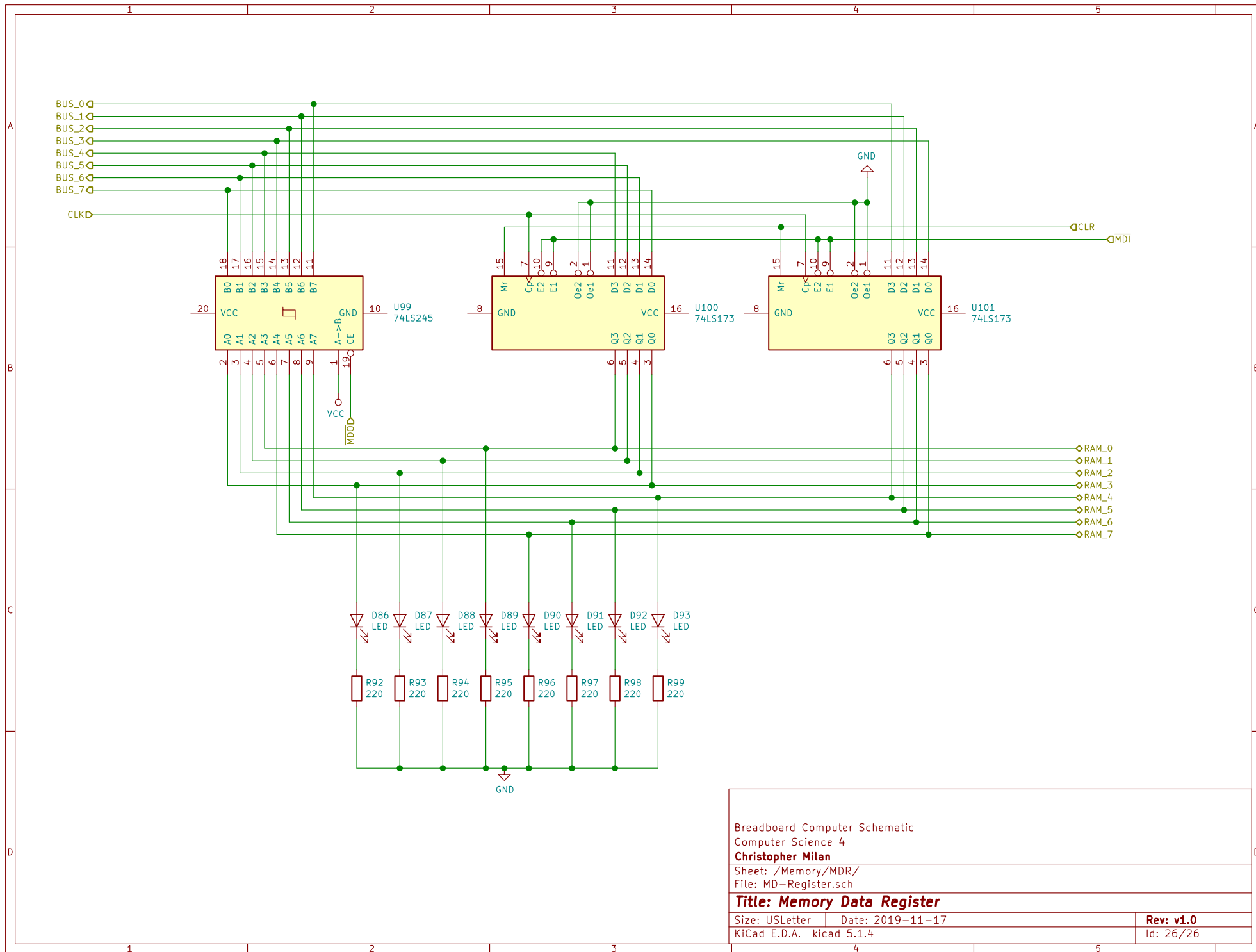
Size: USLetter Date: 2019-11-17

KiCad E.D.A. kicad 5.1.4

Rev: v1.0

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Rev: v1.0
Id: 25/26



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Sheet: /Memory/MDR/
File: MD-Register.sch

Title: Memory Data Register

Size: USLetter | Date: 2019-11-17
KiCad E.D.A. kicad 5.1.4

Rev: v1.0
Id: 26/26