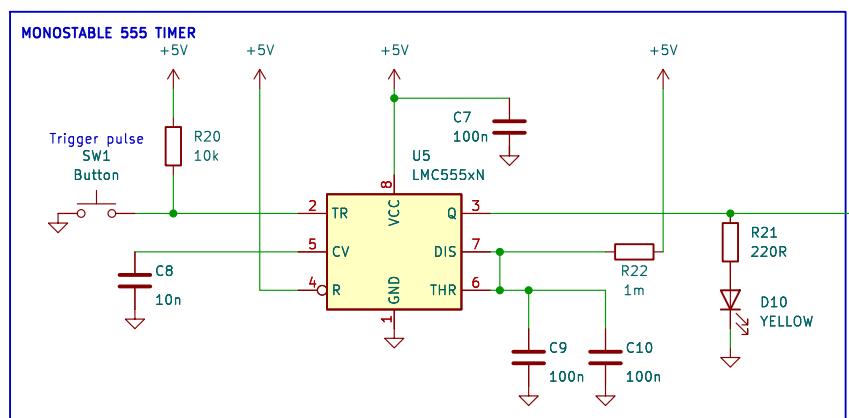
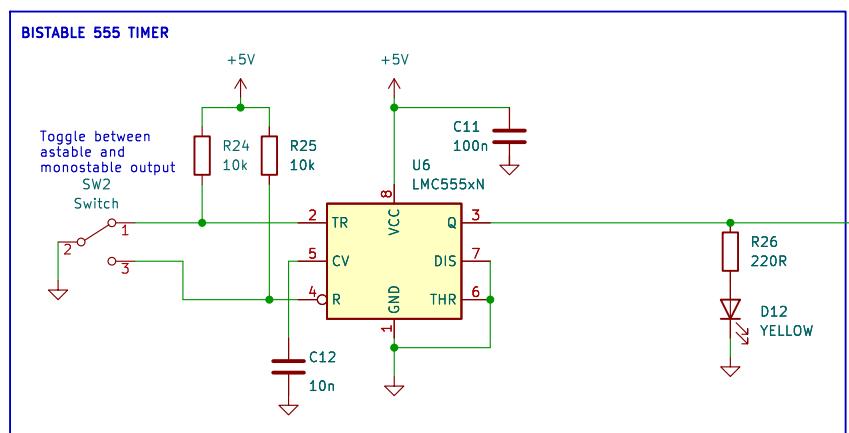


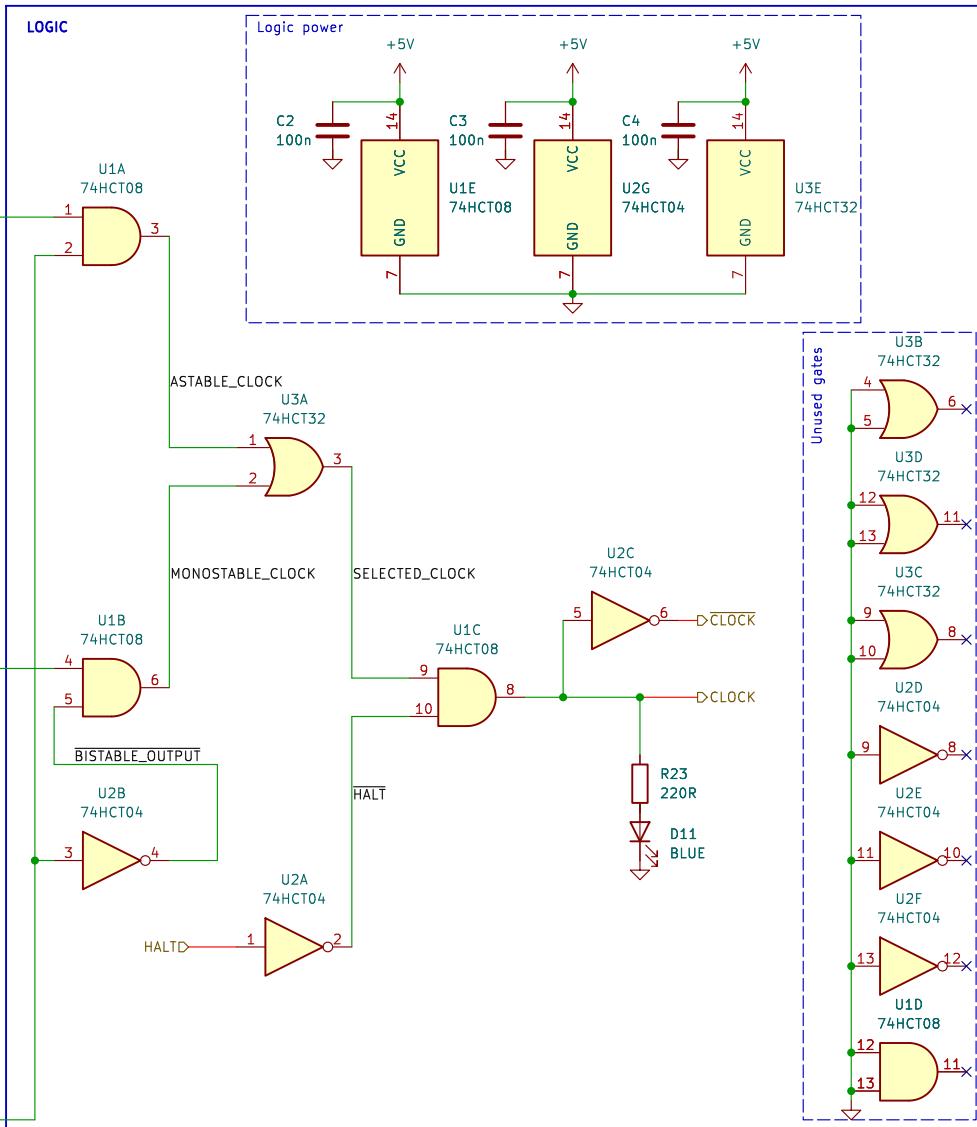
ASTABLE\_OUTPUT



MONOSTABLE\_OUTPUT



BISTABLE\_OUTPUT



Provides a clock pulse and inverted clock pulse.  
Speed can be set with the potentiometer.  
Manual pulse can be chosen with the switch and pulsed with the button.  
If HALT is HIGH no pulse is outputted.

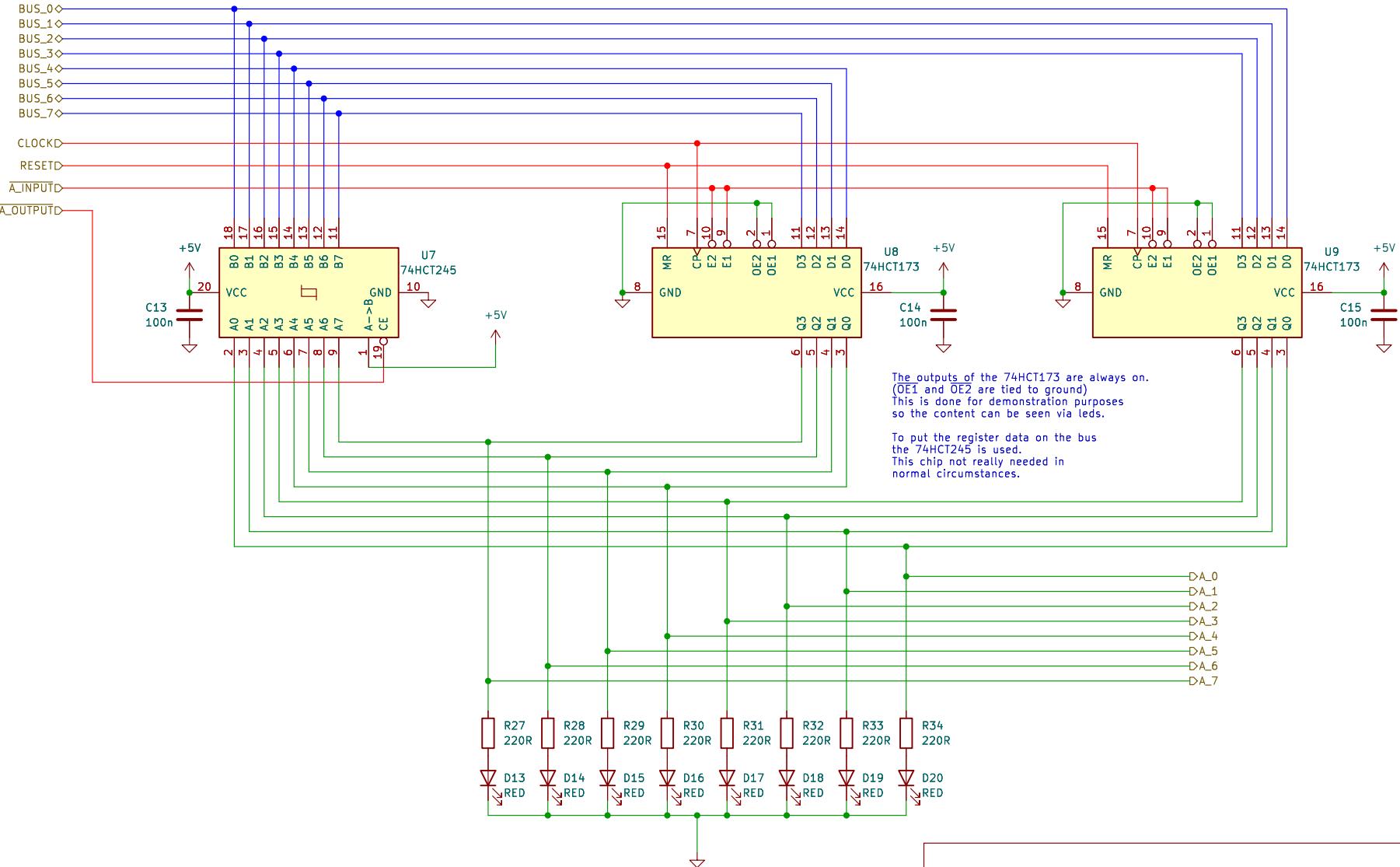
#### TBR Designs

Sheet: /Clock/  
File: clock.kicad\_sch

**Title: 8-bit CPU**

Size: A4 Date: 2023-11-28  
KiCad E.D.A. kicad 7.0.9

Rev: 1.0  
Id: 2/18



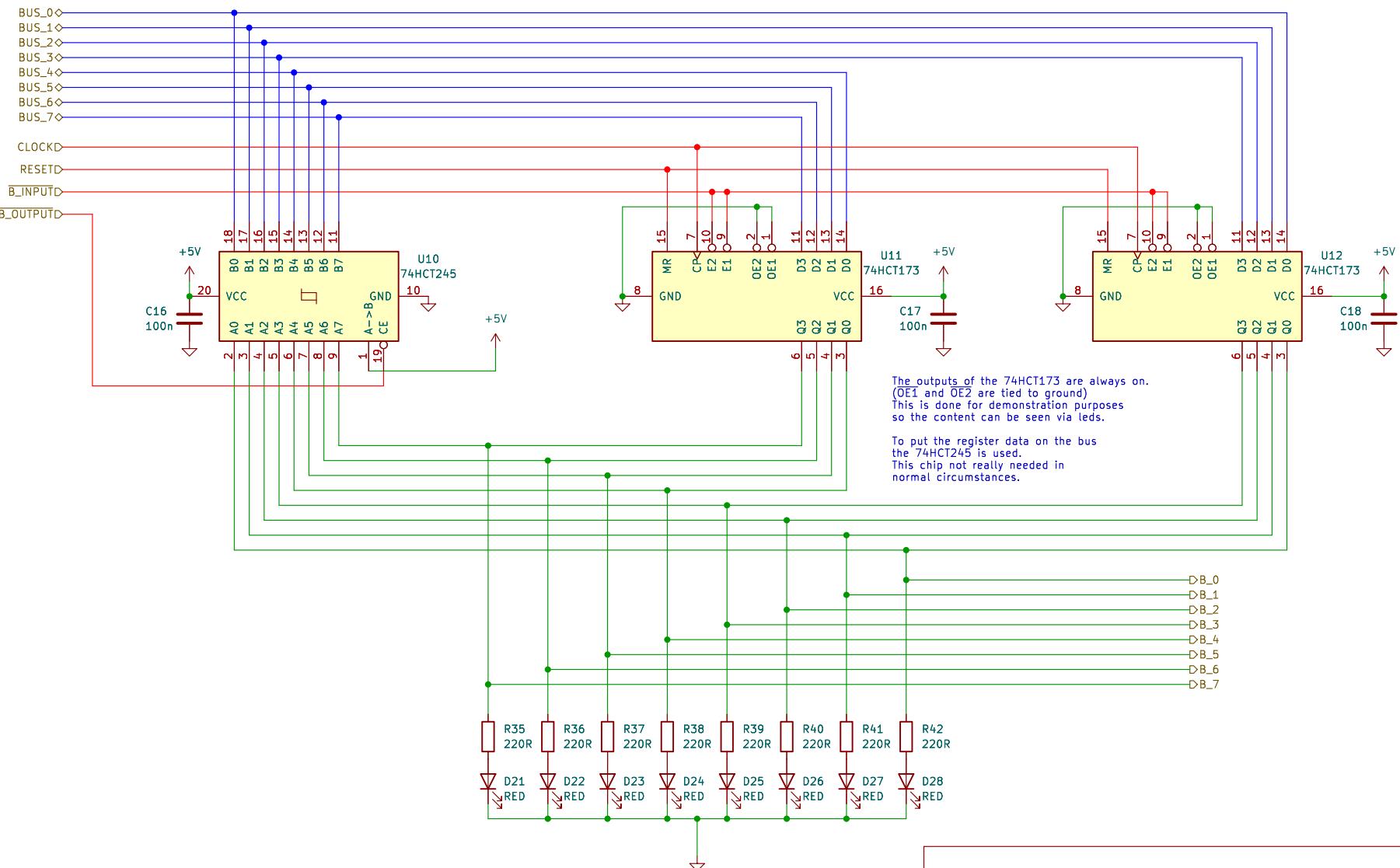
#### TBR Designs

Sheet: /A register/  
File: a-register.kicad\_sch

**Title: 8-bit CPU**

Size: A4 | Date: 2023-11-28  
KiCad E.D.A. kicad 7.0.9

Rev: 1.0  
Id: 3/18



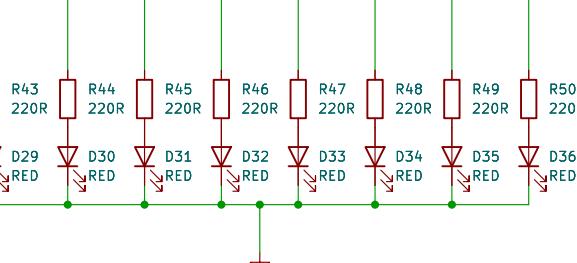
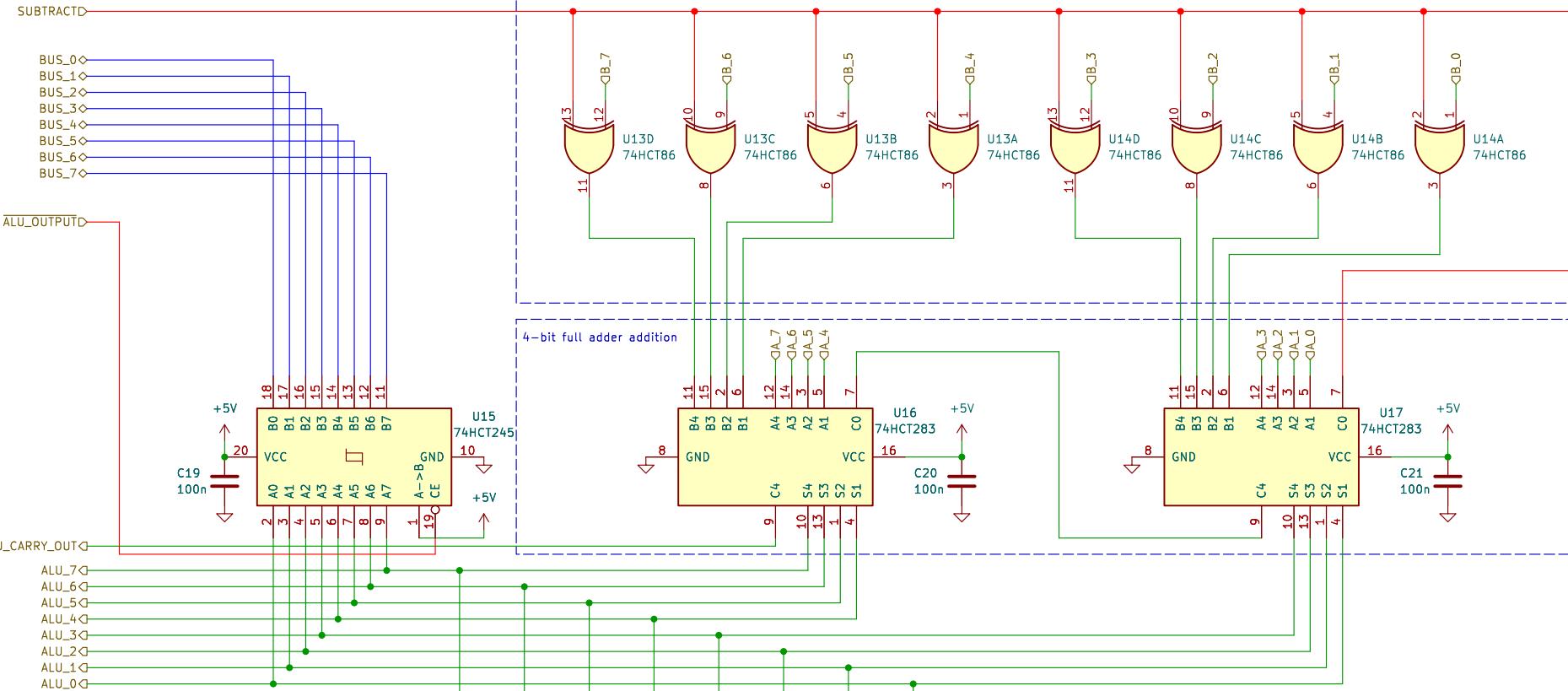
#### TBR Designs

Sheet: /B register/  
File: b-register.kicad\_sch

**Title: 8-bit CPU**

Size: A4 | Date: 2023-11-28  
KiCad E.D.A. kicad 7.0.9

**Rev: 1.0**  
Id: 4/18



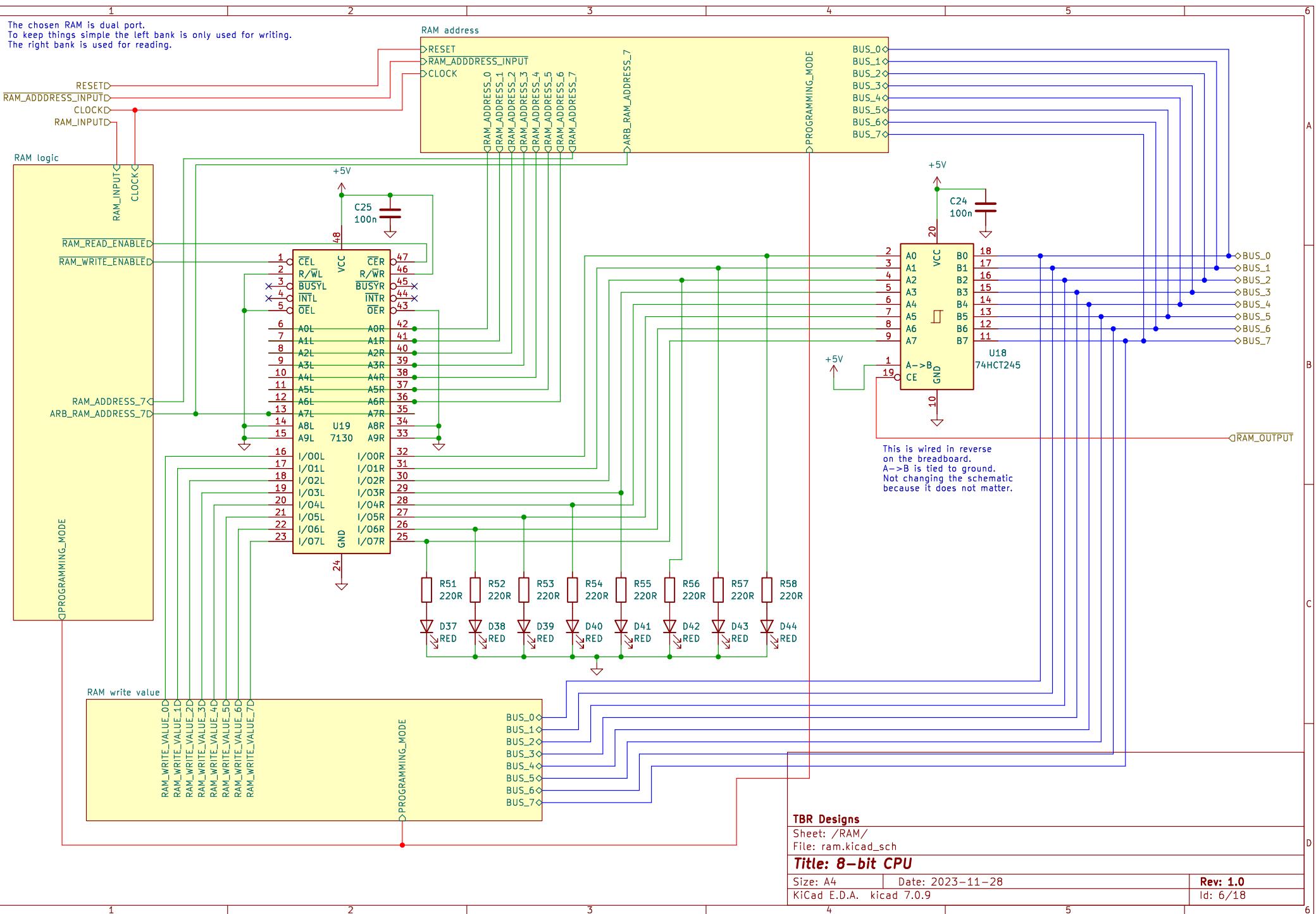
#### TBR Designs

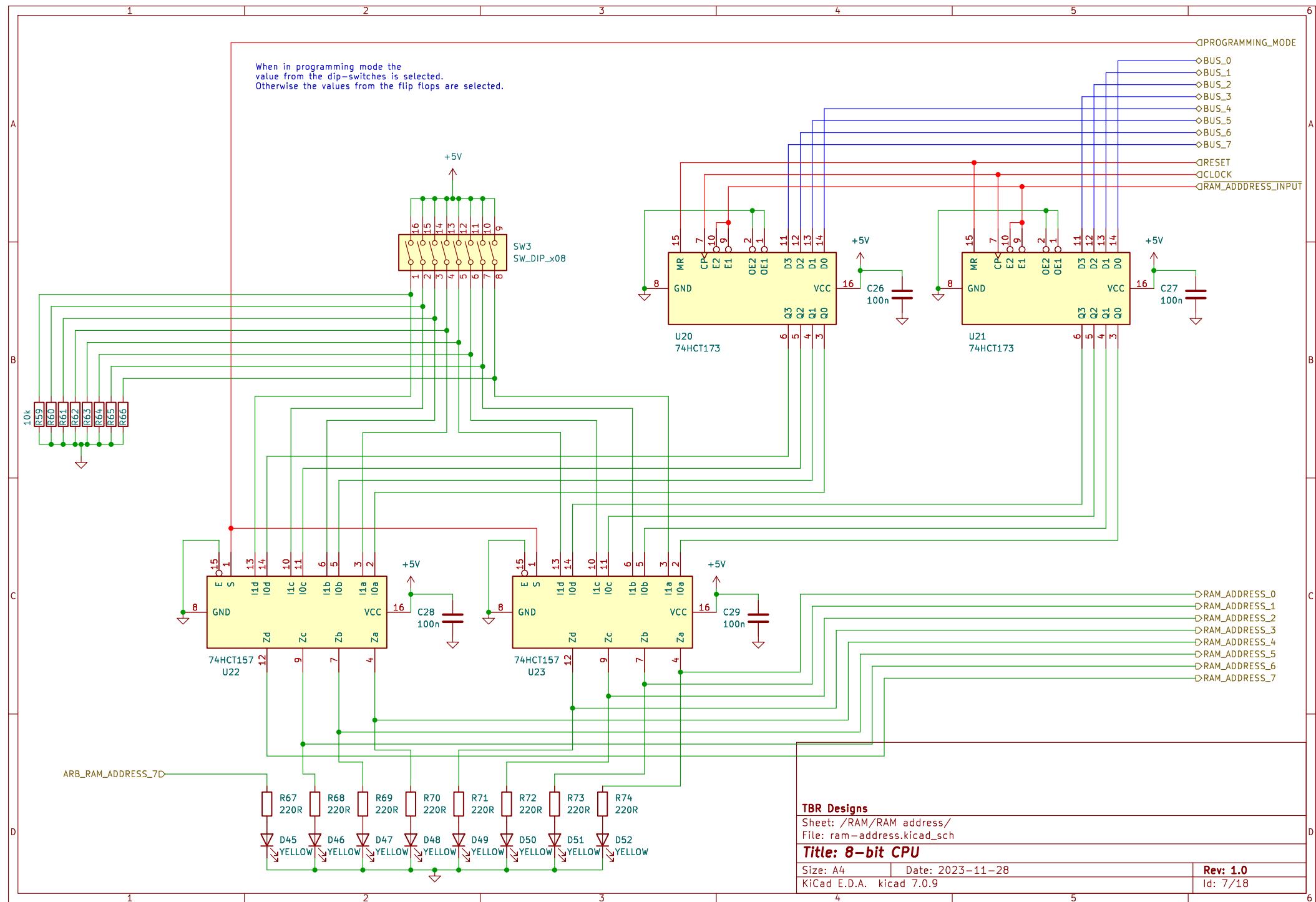
Sheet: /ALU/  
File: alu.kicad\_sch

**Title: 8-bit CPU**

Size: A4 Date: 2023-11-28  
KiCad E.D.A. kicad 7.0.9

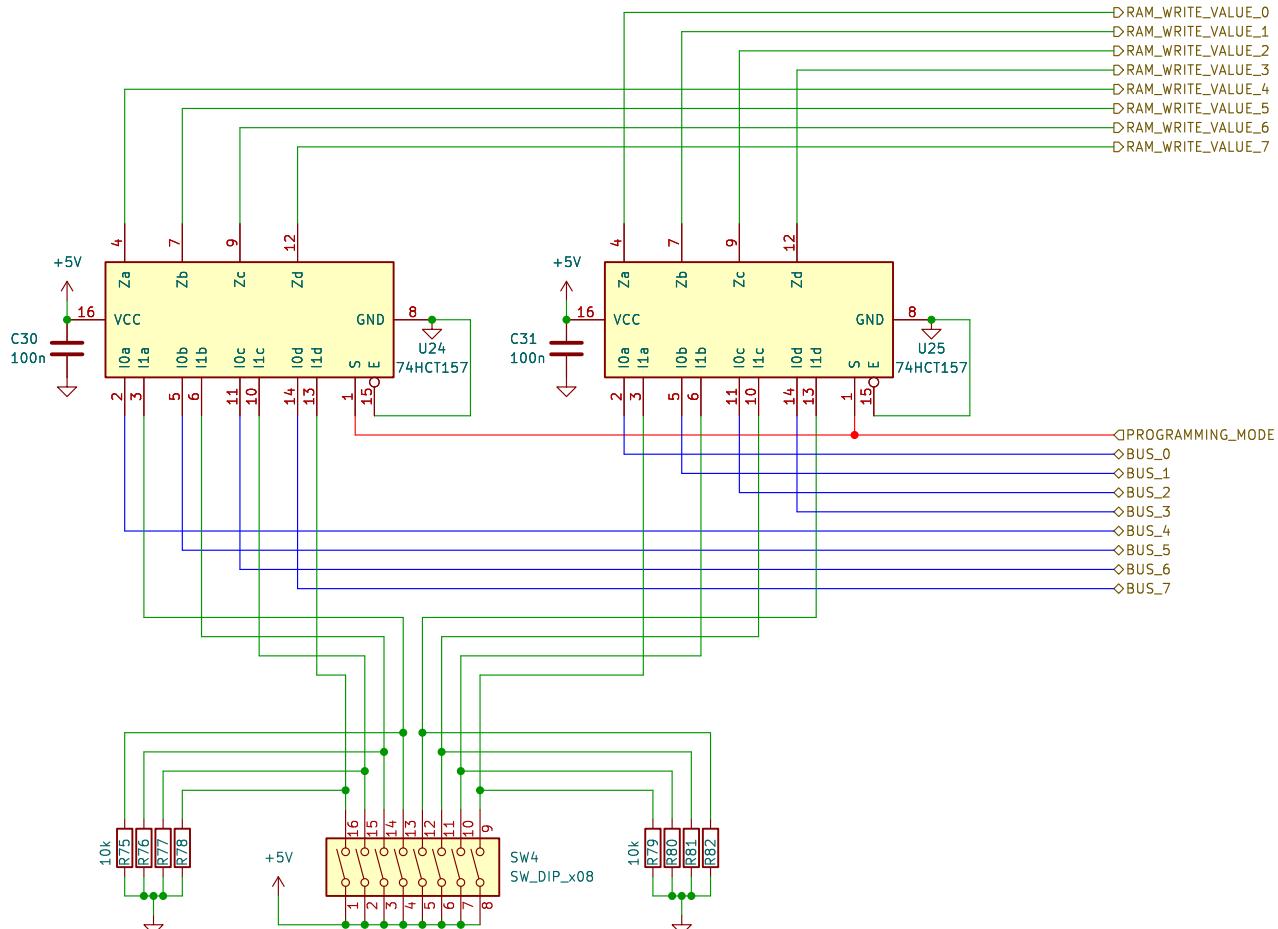
Rev: 1.0  
Id: 5/18





1 2 3 4 5 6

When in programming mode the value from the dip-switches is selected.  
Otherwise the value from the bus is selected.



#### TBR Designs

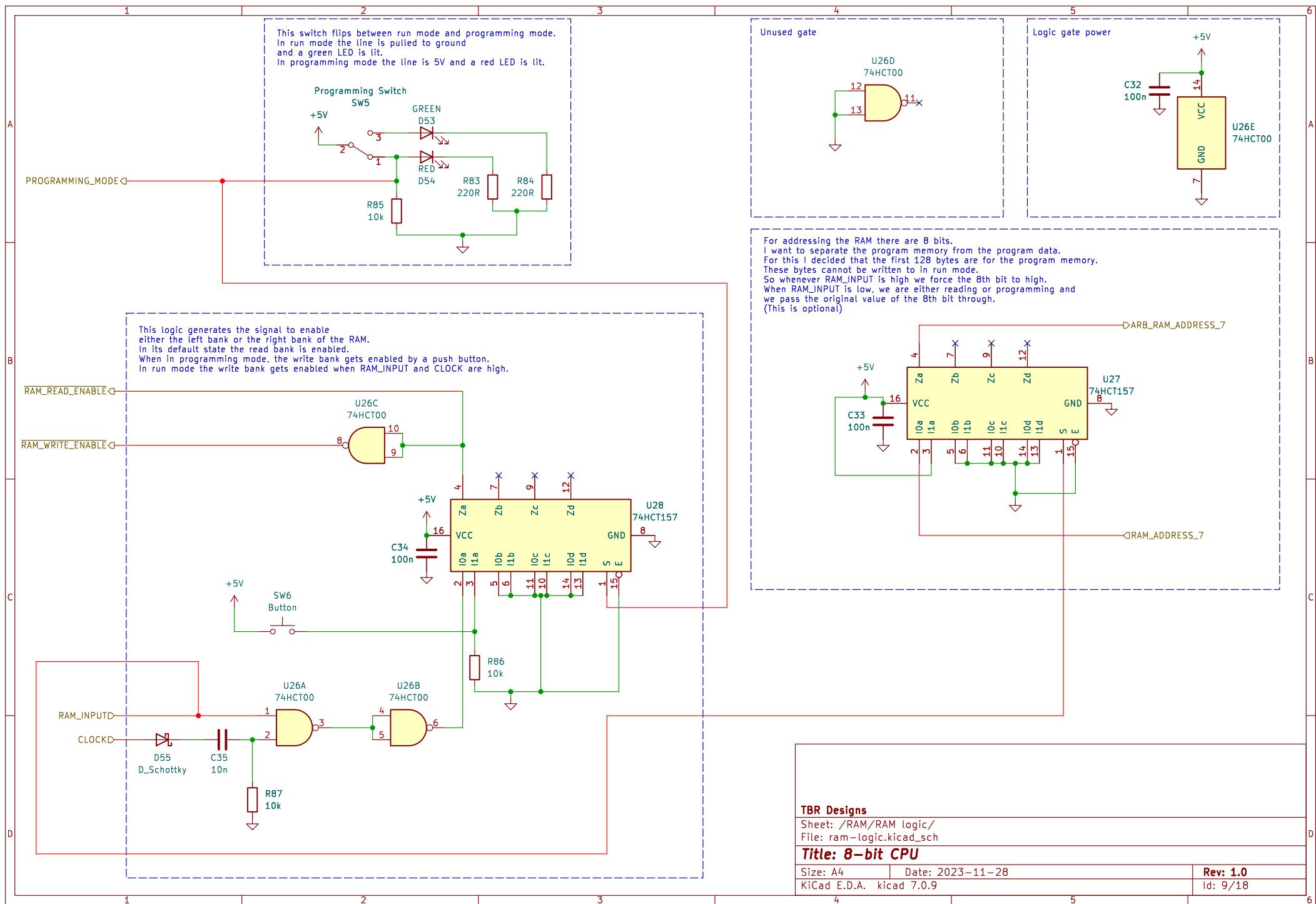
Sheet: /RAM/RAM write value/  
File: ram-write-value.kicad\_sch

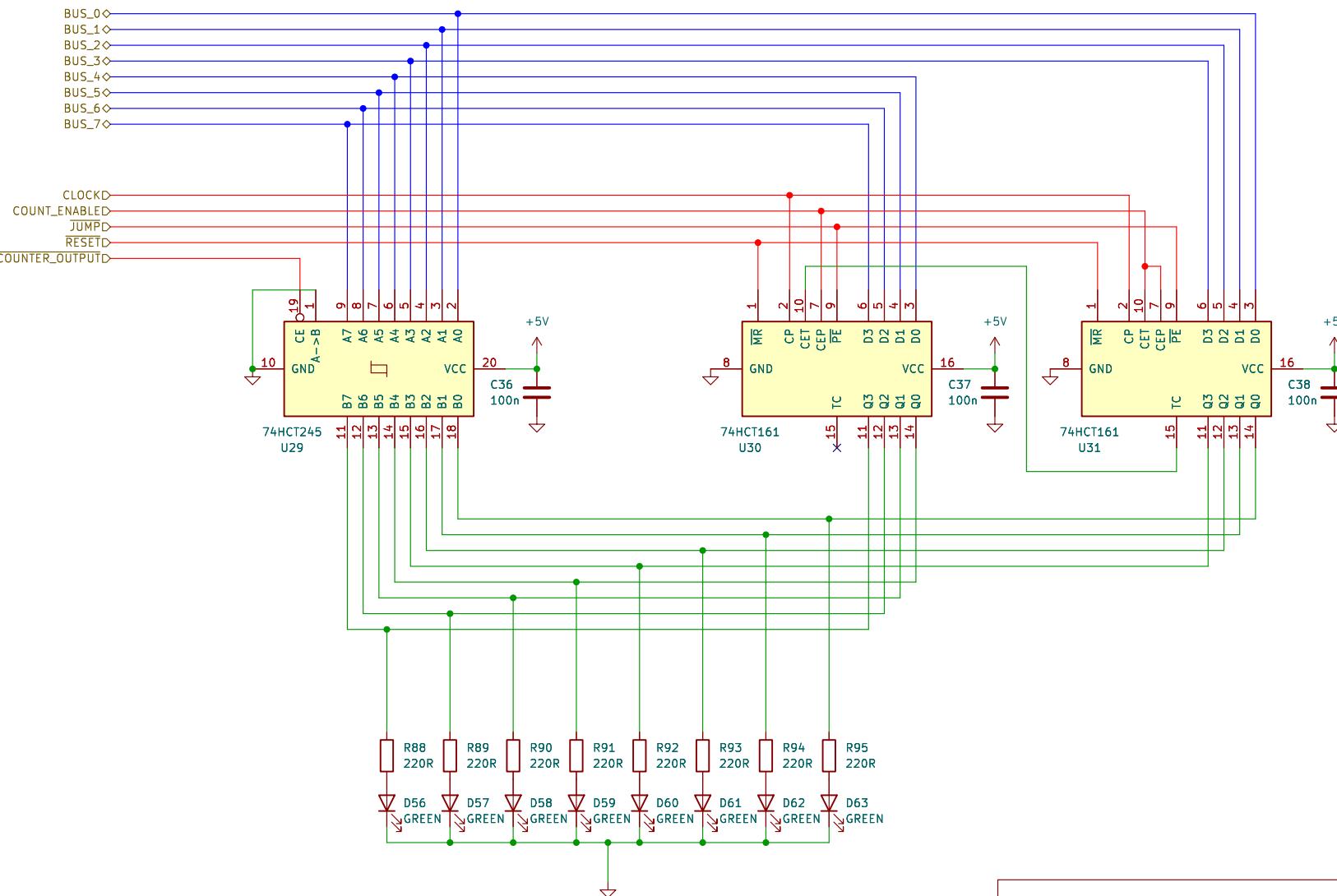
**Title: 8-bit CPU**

Size: A4 Date: 2023-11-28  
KiCad E.D.A. kicad 7.0.9

Rev: 1.0  
Id: 8/18

1 2 3 4 5 6





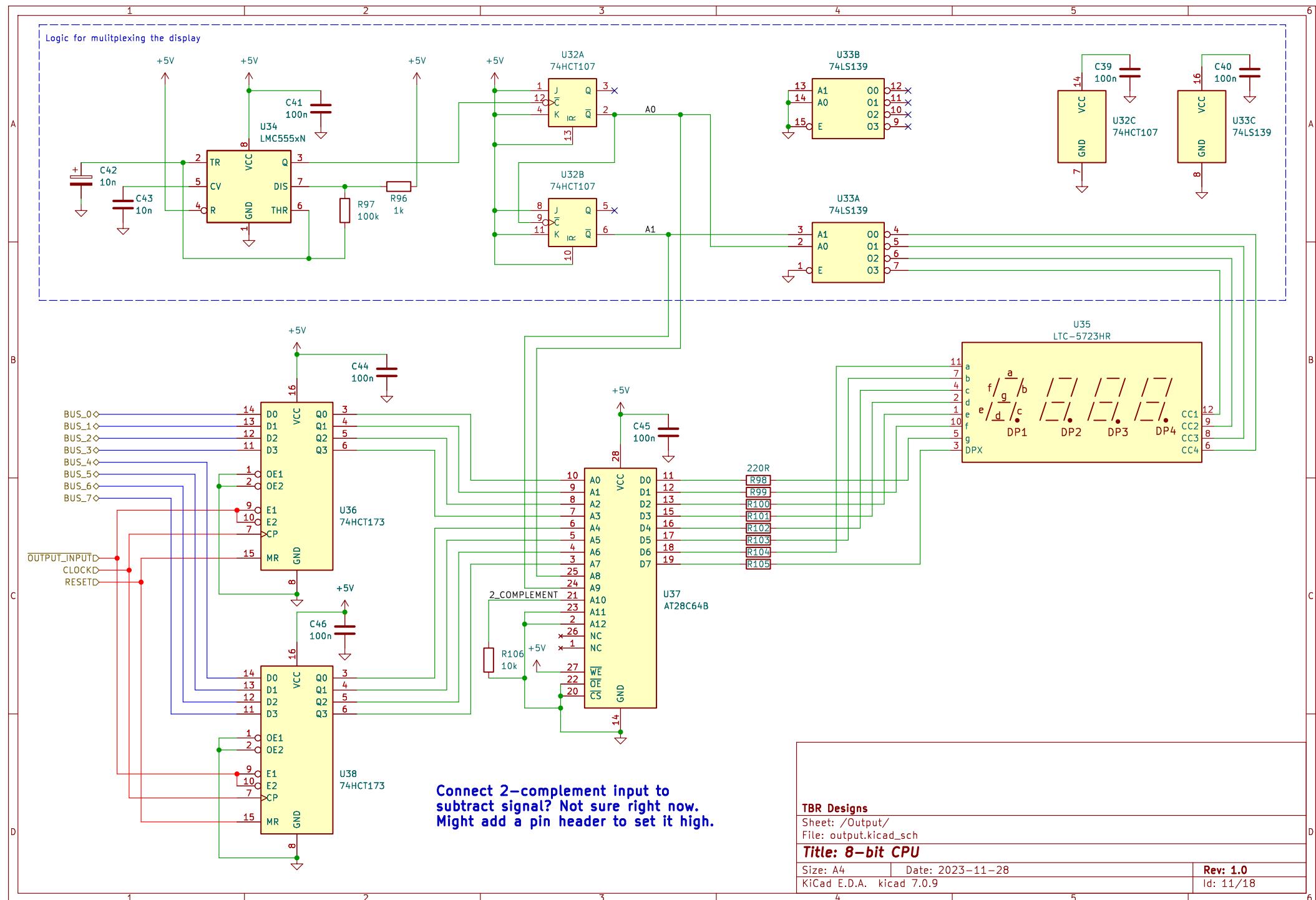
#### TBR Designs

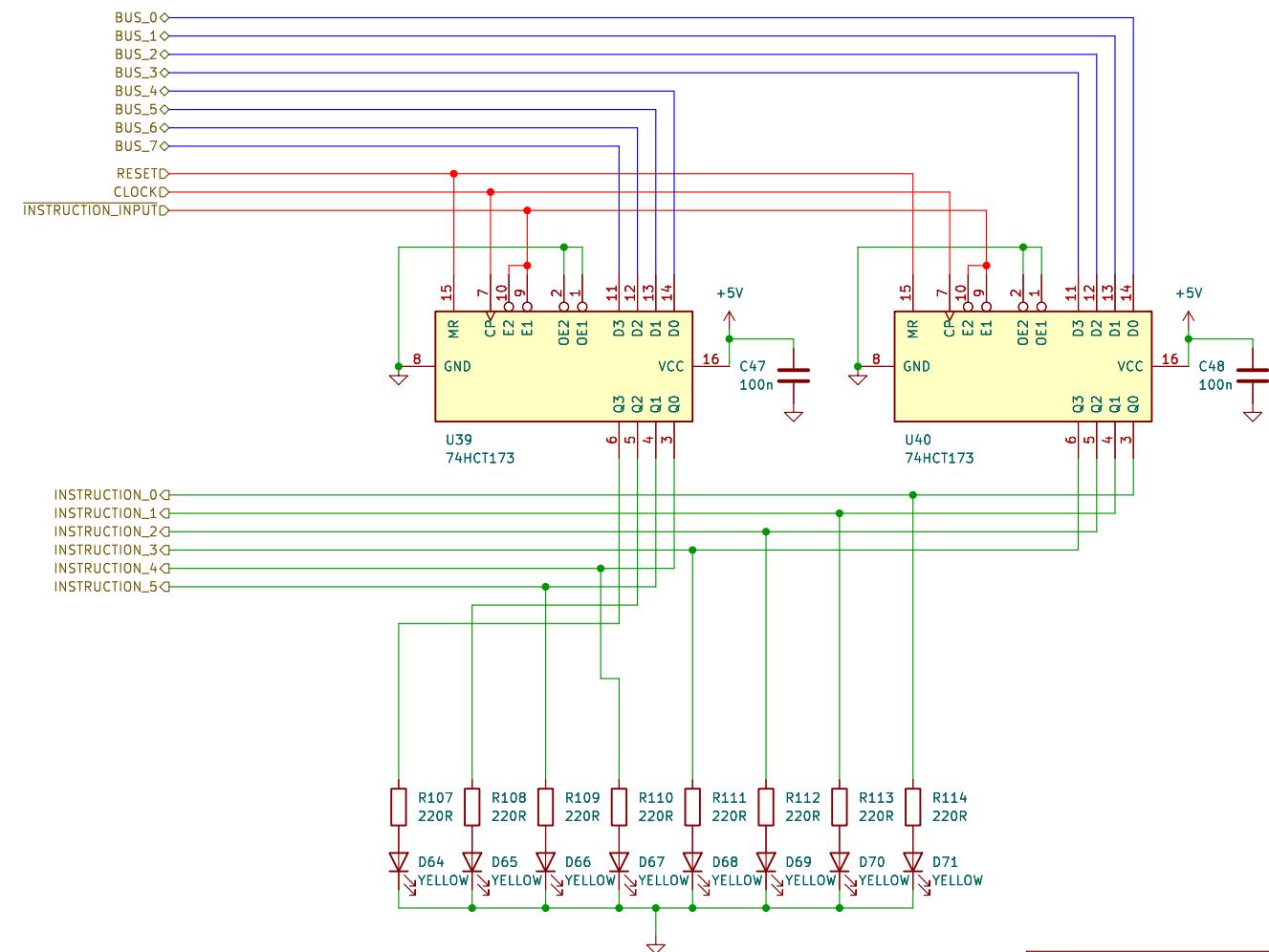
Sheet: /Program Counter/  
File: program-counter.kicad\_sch

**Title: 8-bit CPU**

Size: A4 | Date: 2023-11-28  
KiCad E.D.A. kicad 7.0.9

Rev: 1.0  
Id: 10/18





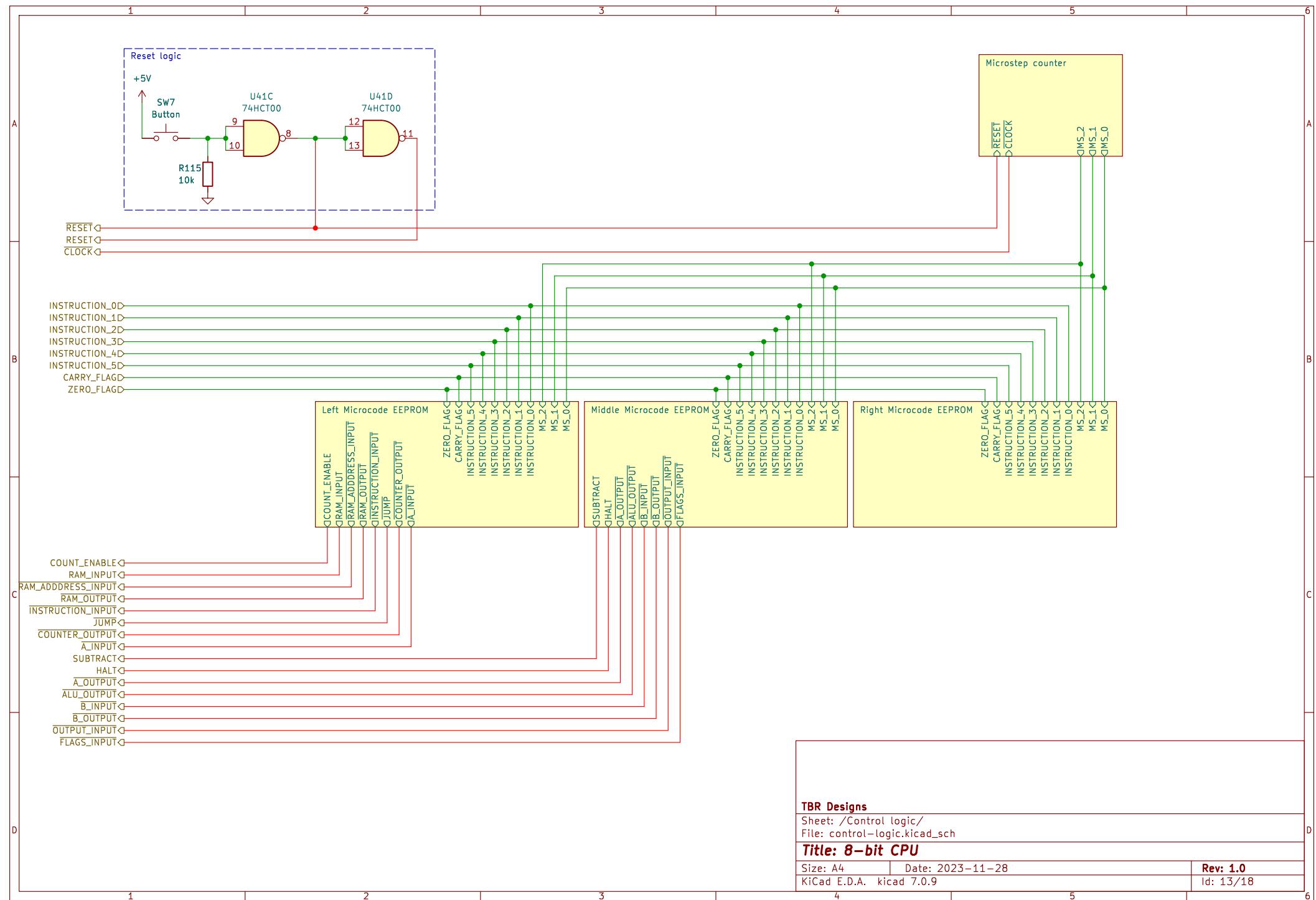
#### TBR Designs

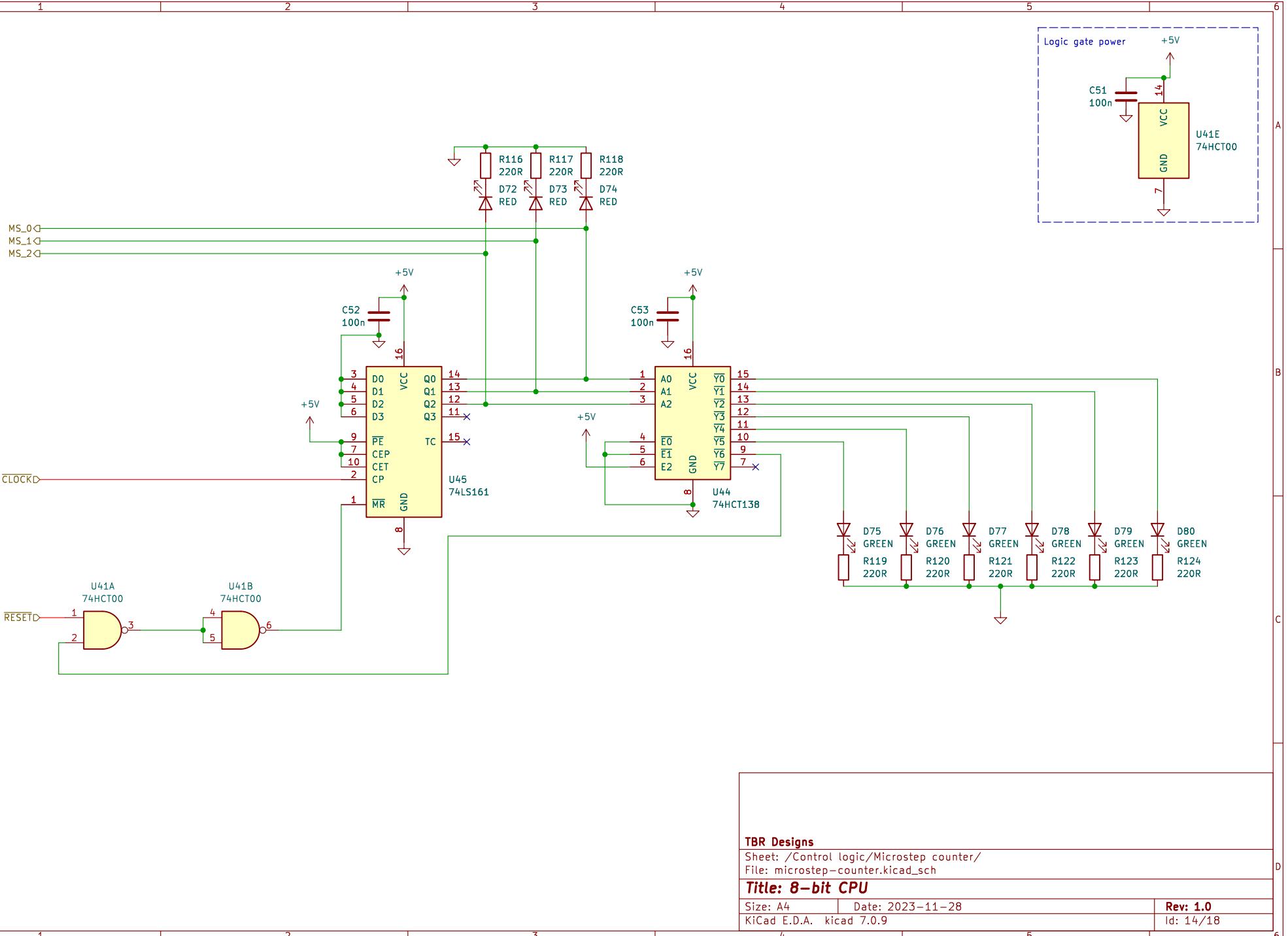
Sheet: /Instruction register/  
 File: instruction-register.kicad\_sch

**Title: 8-bit CPU**

Size: A4 | Date: 2023-11-28  
 KiCad E.D.A. kicad 7.0.9

**Rev: 1.0**  
 Id: 12/18





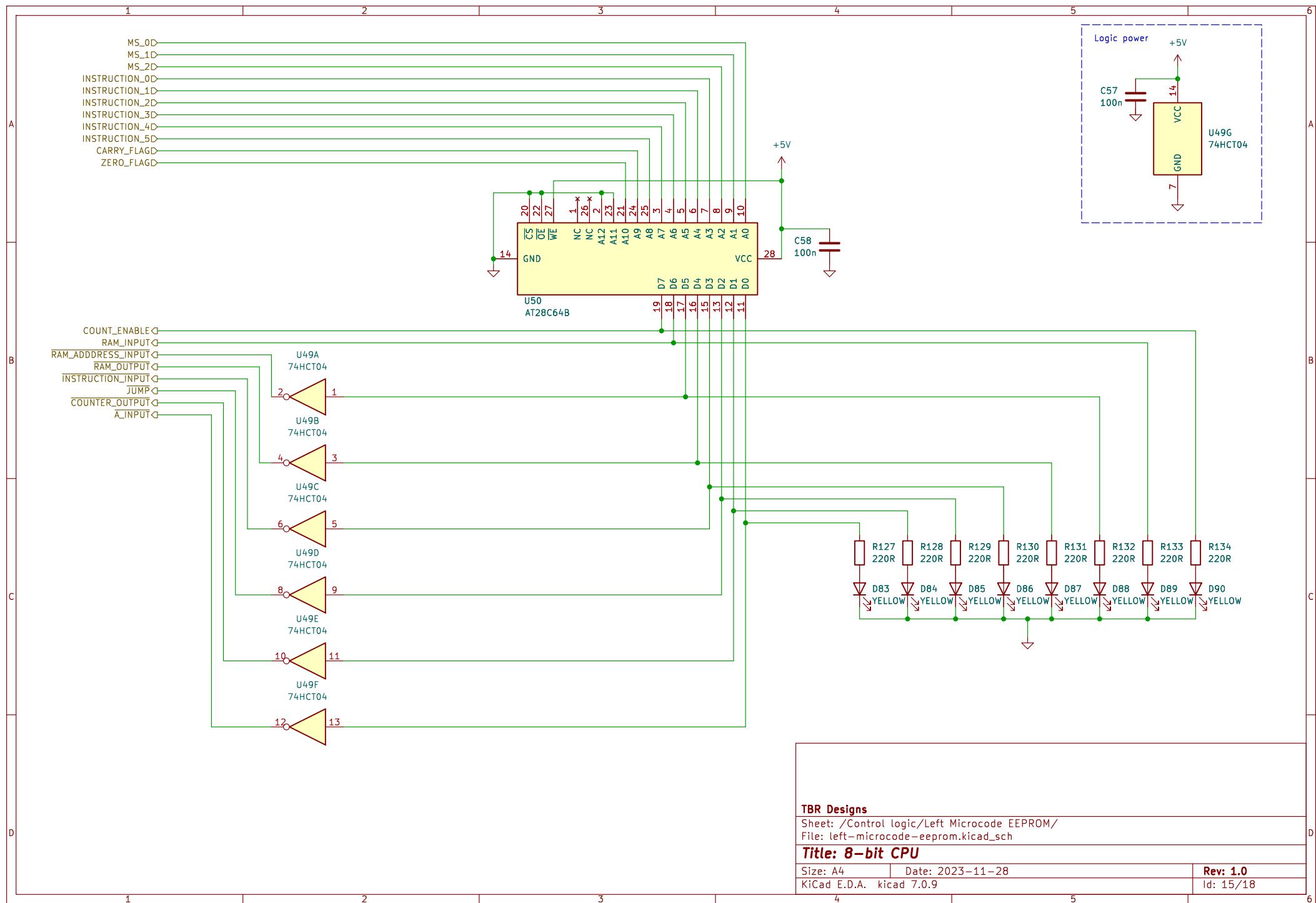
#### TBR Designs

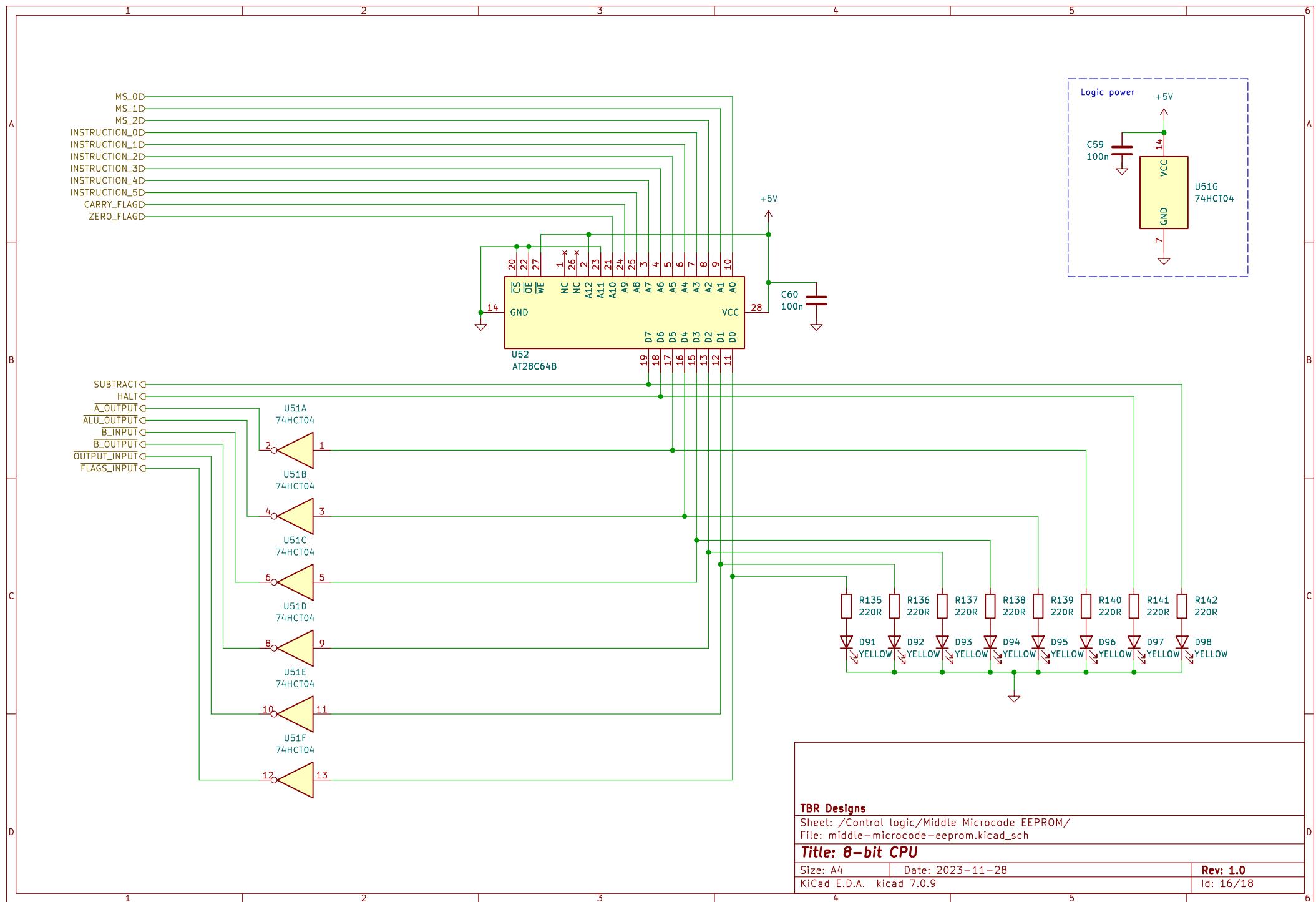
Sheet: /Control logic/Microstep counter/  
File: microstep-counter.kicad\_sch

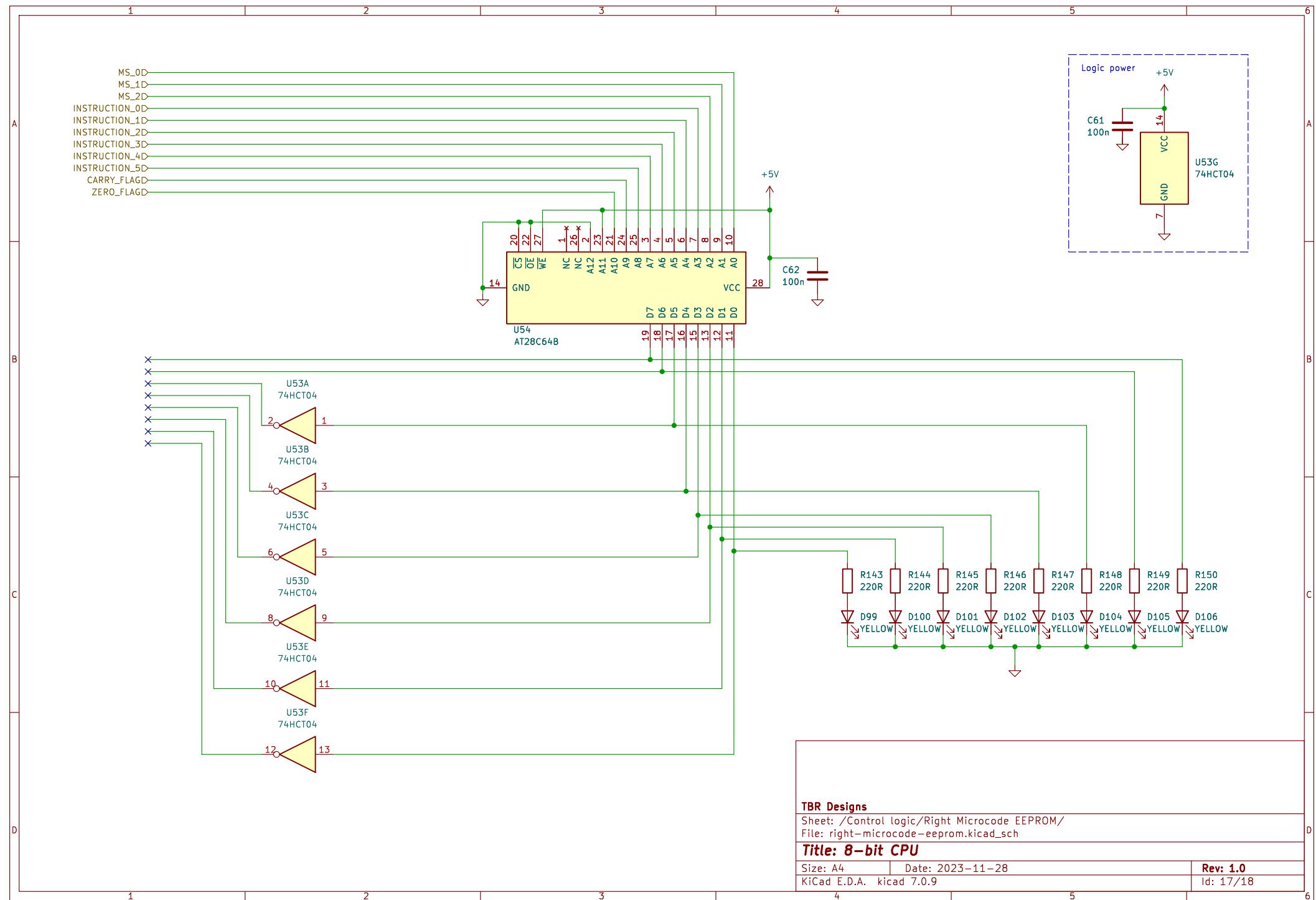
**Title: 8-bit CPU**

Size: A4 | Date: 2023-11-28  
KiCad E.D.A. kicad 7.0.9

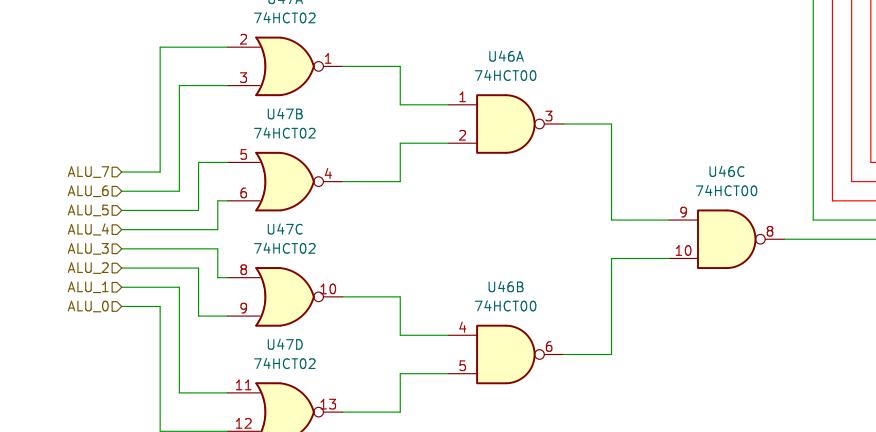
**Rev: 1.0**  
Id: 14/18



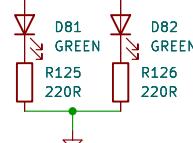




FLAGS\_INPUT  
CLOCK  
RESET  
ALU\_CARRY\_OUT



ZERO\_FLAG  
CARRY\_FLAG



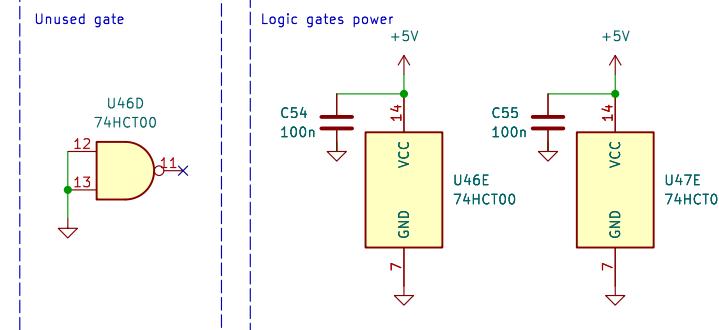
#### TBR Designs

Sheet: /CPU\_flags/  
File: cpu-flags.kicad\_sch

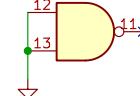
**Title: 8-bit CPU**

Size: A4 | Date: 2023-11-28  
KiCad E.D.A. kicad 7.0.9

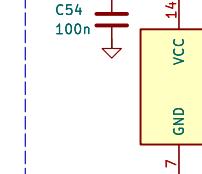
Rev: 1.0  
Id: 18/18



Unused gate



Logic gates power



Logic gates power

