Alim

File: Alim.kicad_sch

MCU

File: MCU.kicad_sch

Sensors

File: Sensors.kicad_sch

Display

File: Display.kicad_sch

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Sheet: /
File: Ruler_PowerCouple.kicad_sch

Title: Power Couple Ruler

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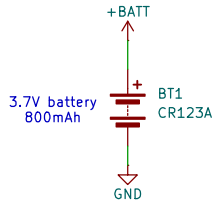
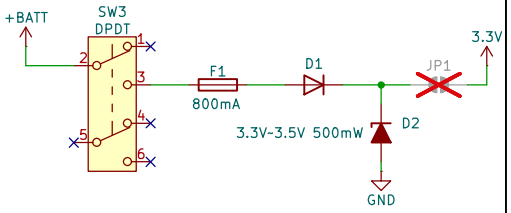
KiCad E.D.A. 8.0.4		Id: 1/5

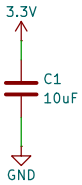
BATTERY INPUT



PROTECTION



DECOUPLING



Overcurrent : F1 (800mA trigger)
Polarity inversion : D1 (~0.3V drop)
Overvoltage : D2 (3.6V nom trigger)
Actual output voltage: ~3.4V

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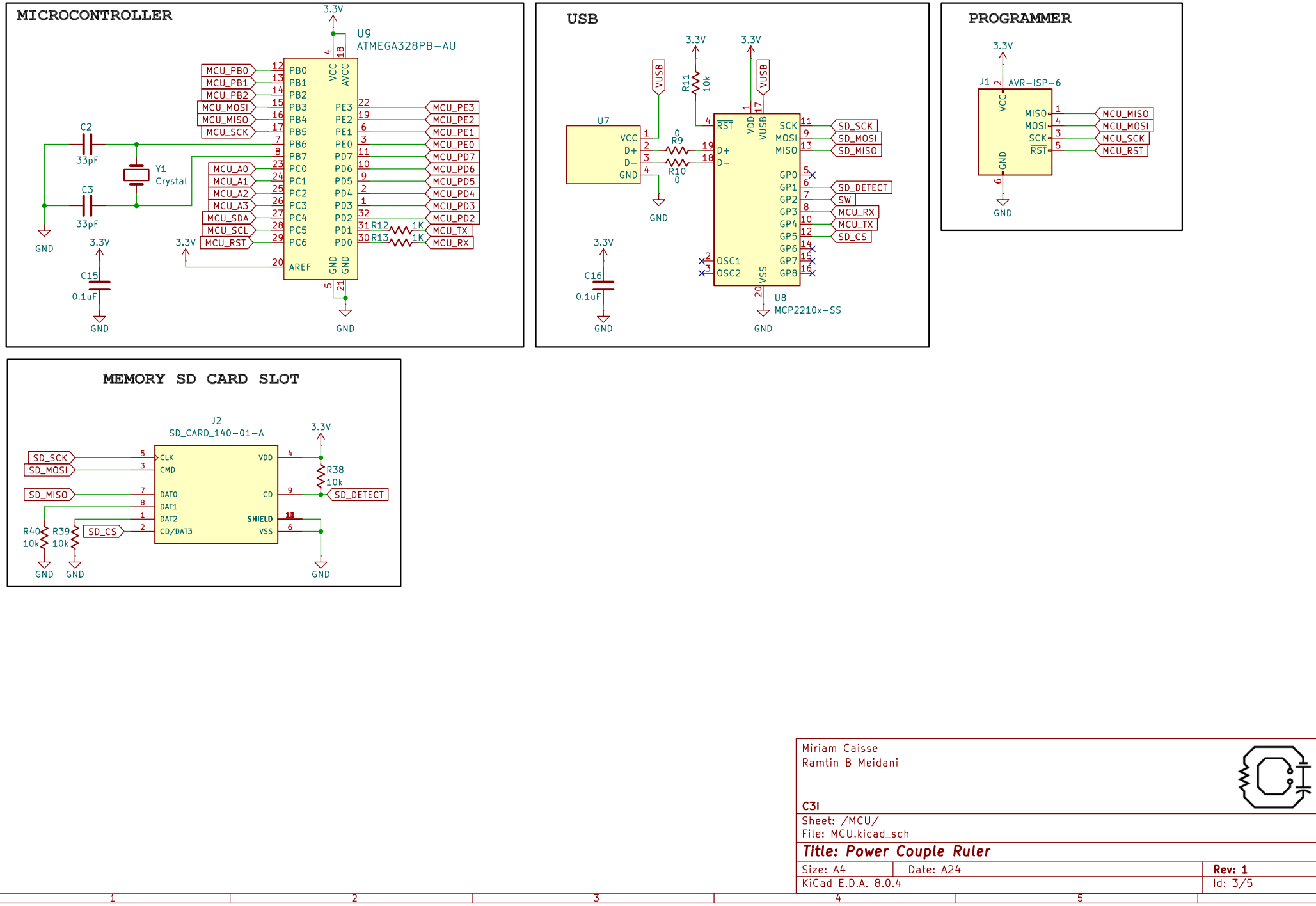

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Sheet: /MCU/
File: MCU.kicad_sch

Title: Power Couple Ruler

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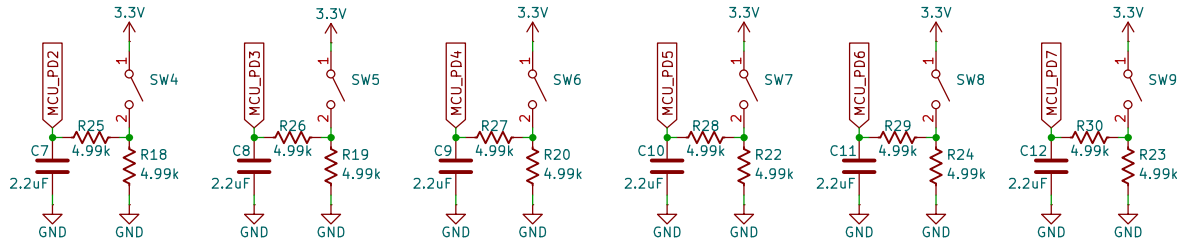
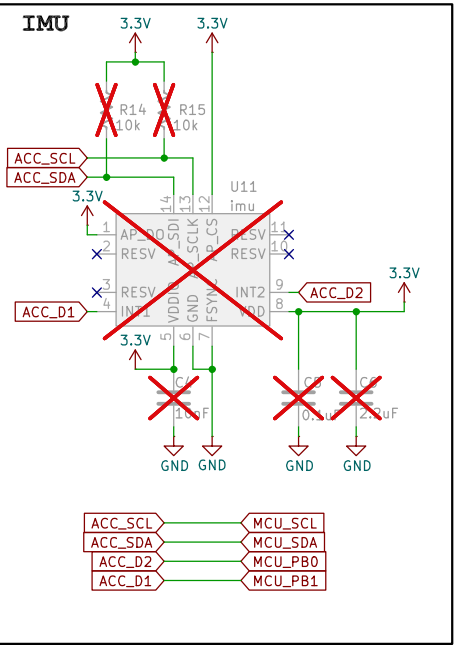
KiCad E.D.A. 8.0.4		Id: 3/5

BUTTONS

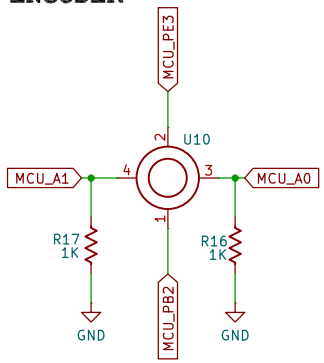


Debouncing filters :
fc = 14.5 Hz

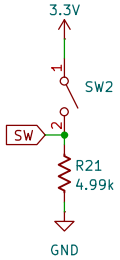
IMU



ENCODER



SWITCHES



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Sheet: /Sensors/
File: Sensors.kicad_sch

Title: Power Couple Ruler

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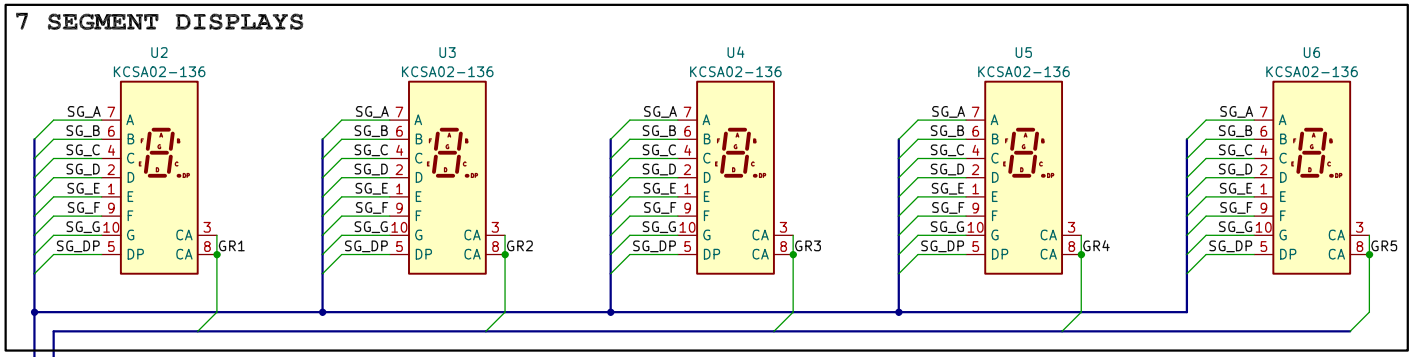
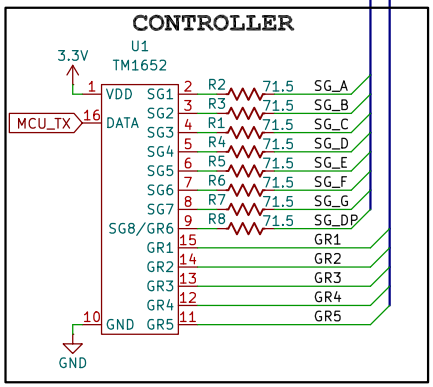
Segment LEDs :
V_F = 2-2.5 V
I_F = 20 mA

Resistor :
3.4V − 2 = 1.4 V
1.4 V / 20 mA = 70 ohm
P = 1.4 V * 20 mA = 28 mW

7 SEGMENT DISPLAYS



CONTROLLER



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Sheet: /Display/
File: Display.kicad_sch

Title: Power Couple Ruler

Size: A4	Date: A24	**Rev: 1**
KiCad E.D.A. 8.0.4		Id: 5/5