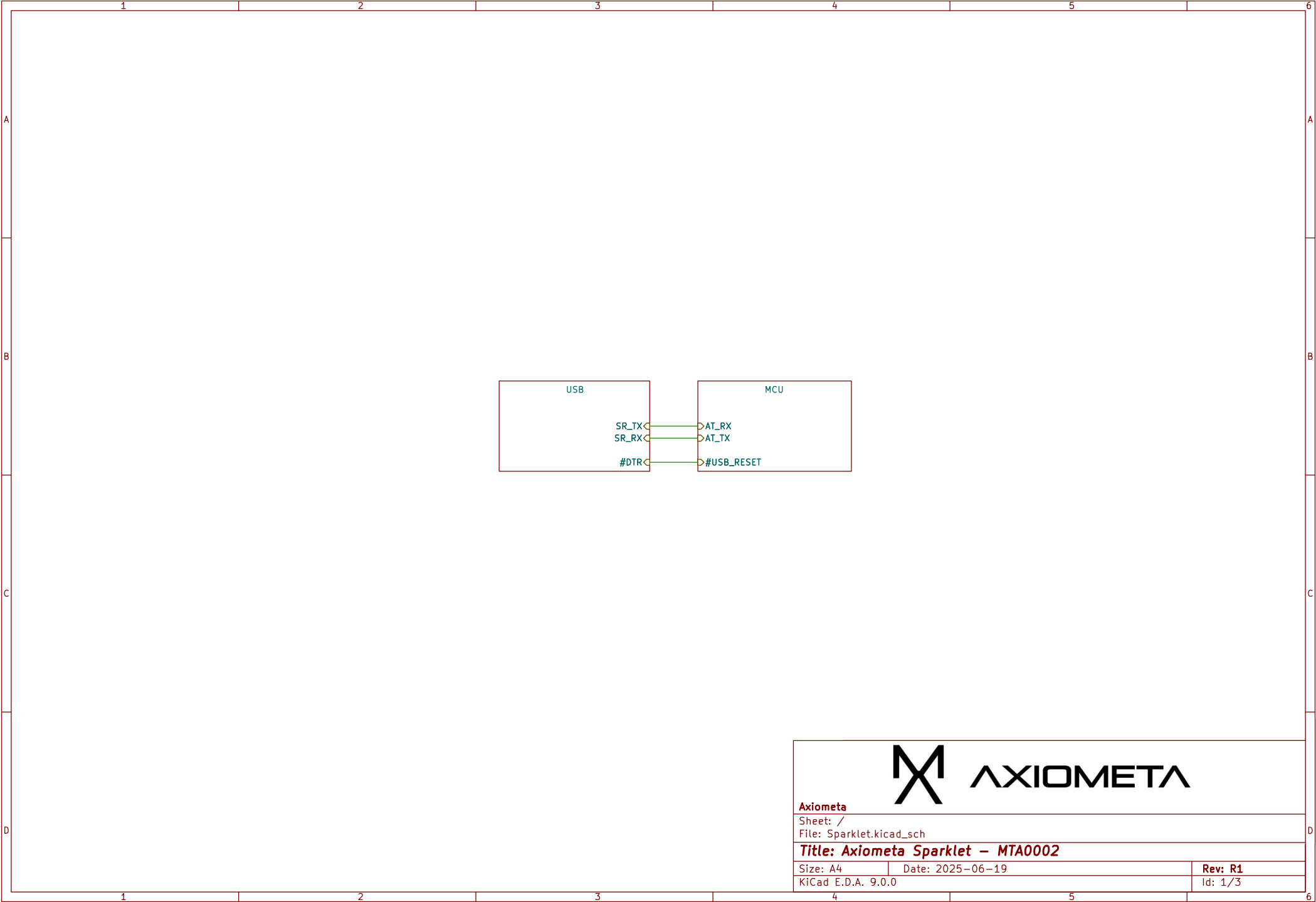
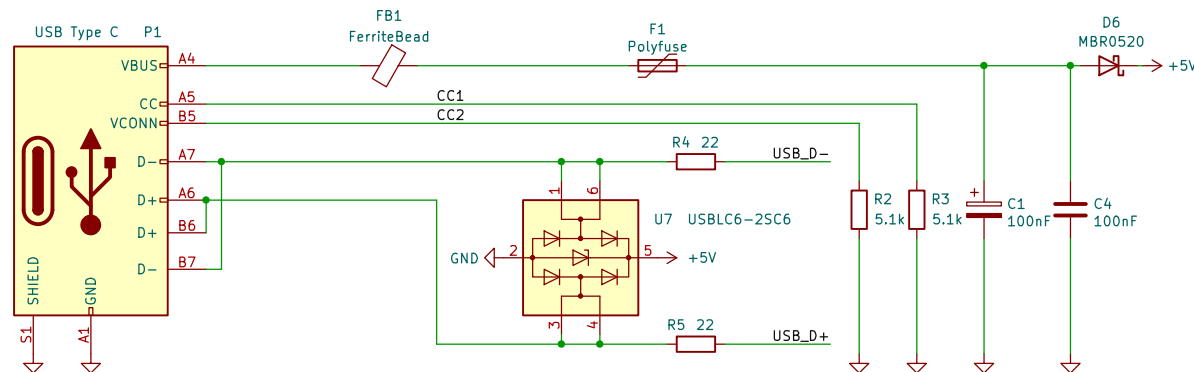


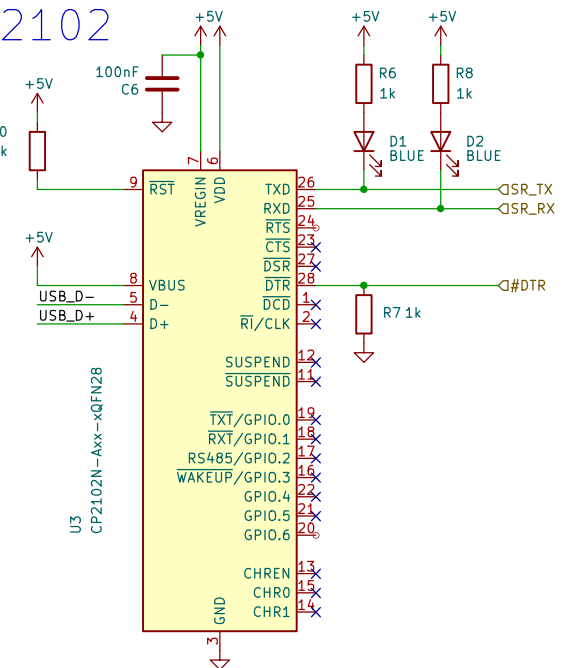


Axiometa		
Sheet: /		
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Title: Axiometa Sparklet – MTA0002		
Size: A4	Date: 2025–06–19	Rev: R1
KiCad E.D.A. 9.0.0	Id: 1/3	

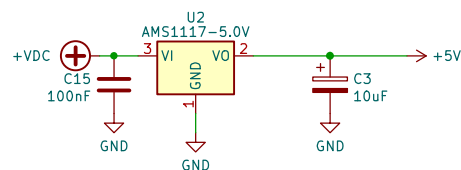
USB Input



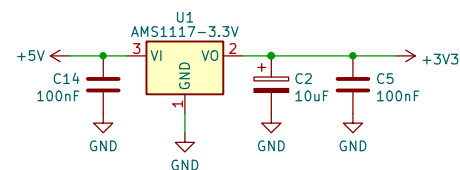
CP2102



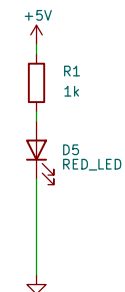
5.0V



3.3V



Power LED



Axiometa

Sheet: /USB/
File: USB.kicad_sch

Title: Axiometa Sparklet - MTA0002 - USB Input

Size: A4

Date: 2025-06-19

Rev: R1

KiCad E.D.A. 9.0.0

Id: 2/3

IO Pins

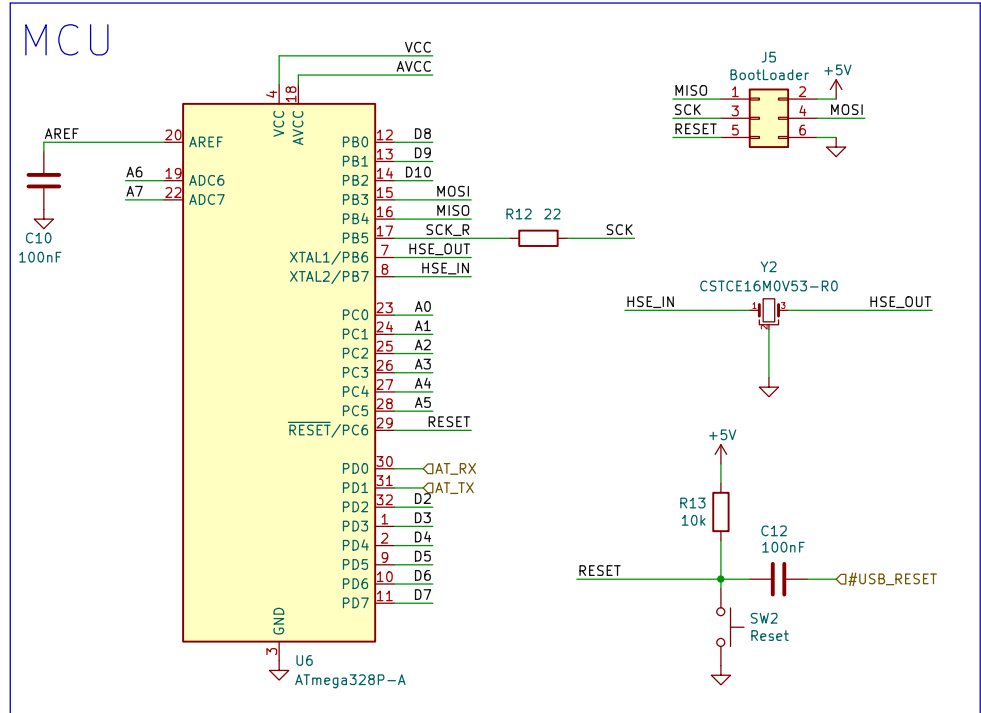
The diagram illustrates the pin connections for two modules, J1 and J2, which are connected to a microcontroller system.

Module J1 (Left):

- Power:** +5V and +3V3 pins are connected to the power supply.
- Ground:** A GND pin is connected to the ground.
- IO Pins:**
 - SCK (Serial Clock) is connected to pin 1.
 - AREF (Analog Reference) is connected to pin 2.
 - A0 (Analog Input 0) is connected to pin 3.
 - A1 (Analog Input 1) is connected to pin 4.
 - A2 (Analog Input 2) is connected to pin 5.
 - A3 (Analog Input 3) is connected to pin 6.
 - A4 (Analog Input 4) is connected to pin 7.
 - A5 (Analog Input 5) is connected to pin 8.
 - A6 (Analog Input 6) is connected to pin 9.
 - A7 (Analog Input 7) is connected to pin 10.
 - RESET is connected to pin 11.
 - +VDC (Digital Voltage) is connected to pin 12.

Module J2 (Right):

- Power:** +5V and +3V3 pins are connected to the power supply.
- Ground:** A GND pin is connected to the ground.
- IO Pins:**
 - MISO (Master In Slave Out) is connected to pin 1.
 - MOSI (Master Out Slave In) is connected to pin 2.
 - D10 (Digital Input/Output 10) is connected to pin 3.
 - D9 (Digital Input/Output 9) is connected to pin 4.
 - D8 (Digital Input/Output 8) is connected to pin 5.
 - D7 (Digital Input/Output 7) is connected to pin 6.
 - D6 (Digital Input/Output 6) is connected to pin 7.
 - D5 (Digital Input/Output 5) is connected to pin 8.
 - D4 (Digital Input/Output 4) is connected to pin 9.
 - D3 (Digital Input/Output 3) is connected to pin 10.
 - D2 (Digital Input/Output 2) is connected to pin 11.
 - RESET is connected to pin 12.
 - AT_RX (ATmega328P RX) is connected to pin 13.
 - AT_TX (ATmega328P TX) is connected to pin 14.



User Button



The diagram shows a circuit for a user button. A red rectangle represents the button, labeled 'SW1' and 'User Button'. One terminal of the button is connected to a green line labeled 'D2'. The other terminal of the button is connected to a red triangle symbol representing ground. A green label 'R11' and '1k' indicates a 1k resistor connected between the button terminal and ground.

ACT LED



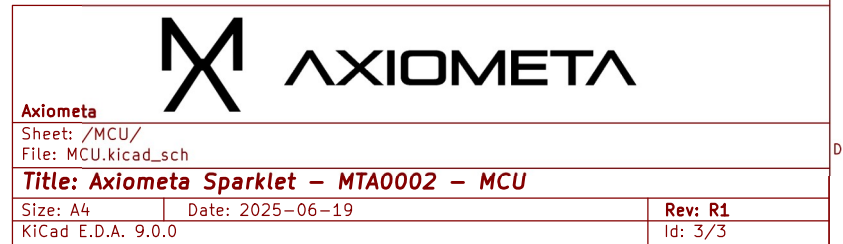
The diagram shows a green wire representing a signal line. On the left, it is labeled 'SCK'. A red diode symbol, labeled 'D3' below it, is connected to the wire. Above the diode is the label 'GREEN_LED'. The wire continues to the right, passing through a red rectangular resistor symbol labeled 'R151k' below it. The wire ends on the right with an arrow pointing to the right, labeled '+5V'.

Voltage Filtering /Decoupling

The diagram illustrates the power supply connections for two pins, AVCC and VCC. The AVCC pin is connected to a +5V supply. The VCC pin is also connected to a +5V supply and includes two decoupling capacitors, C7 (4.7uF) and C8 (100nF), connected to ground to filter the voltage.

PWM LED

```
graph LR; D10 --- GREEN_LED[GREEN_LED]; GREEN_LED --- R191k[R191k]; R191k --- 5V[+5V];
```



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