

Status LED

I²C display

Buttons

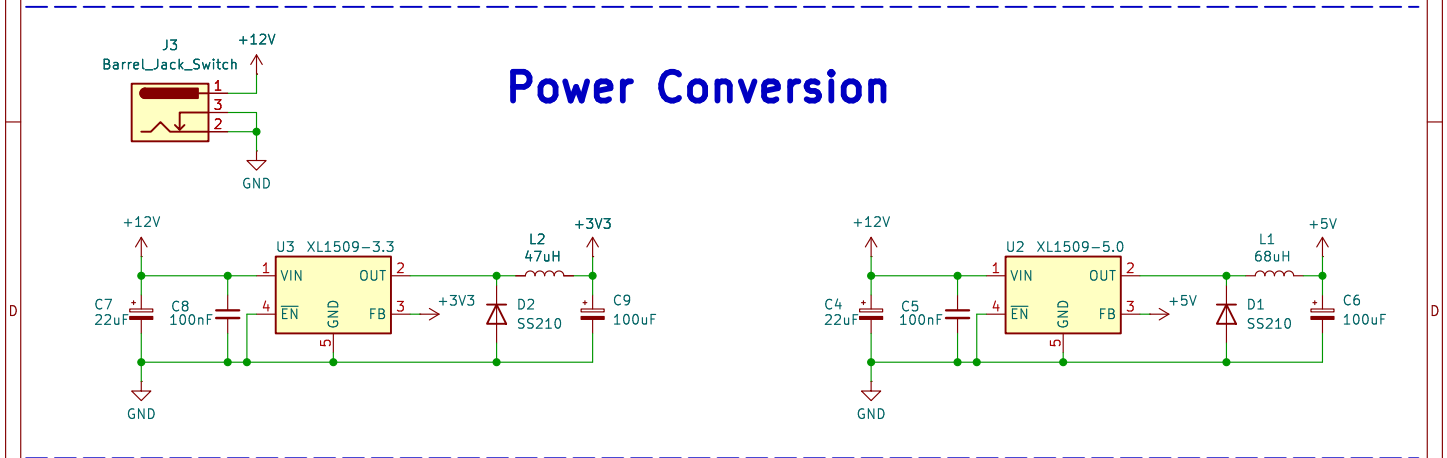
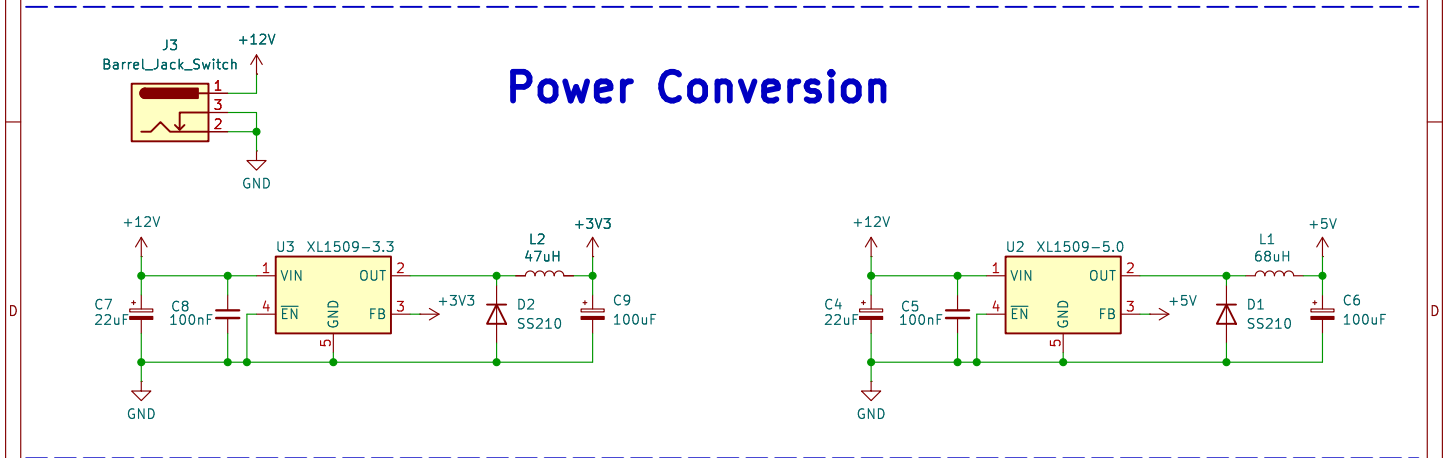
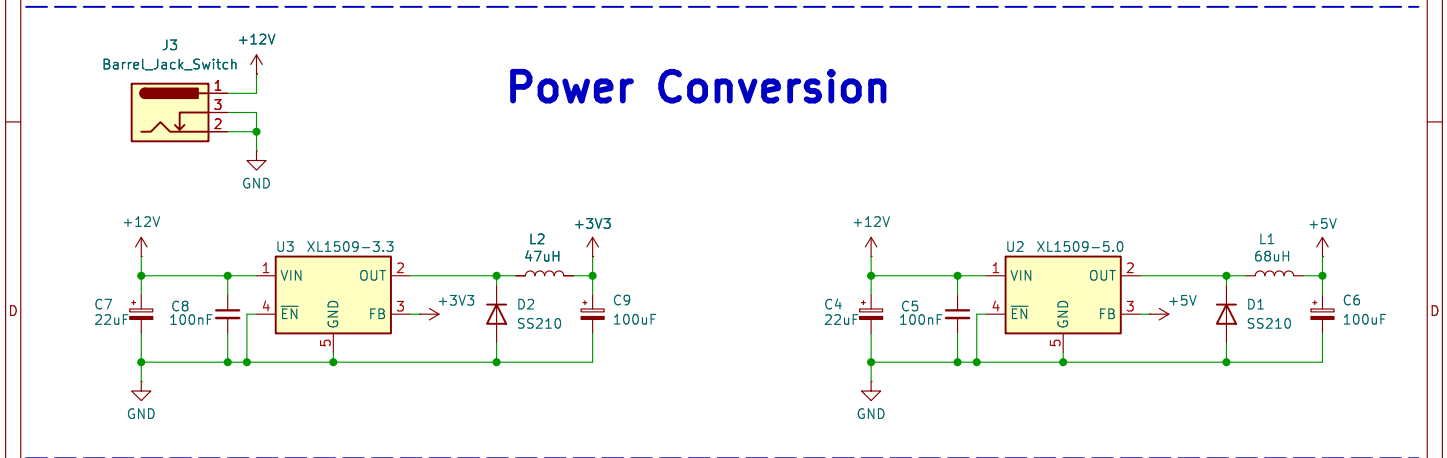
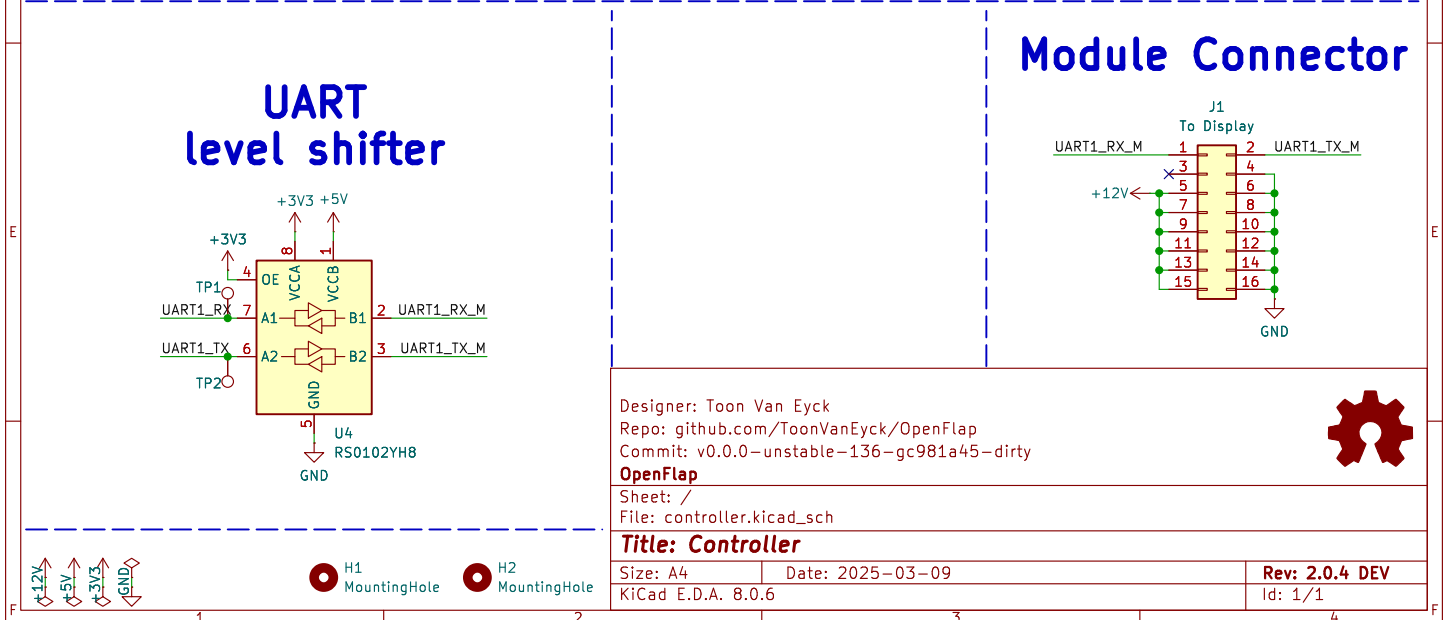
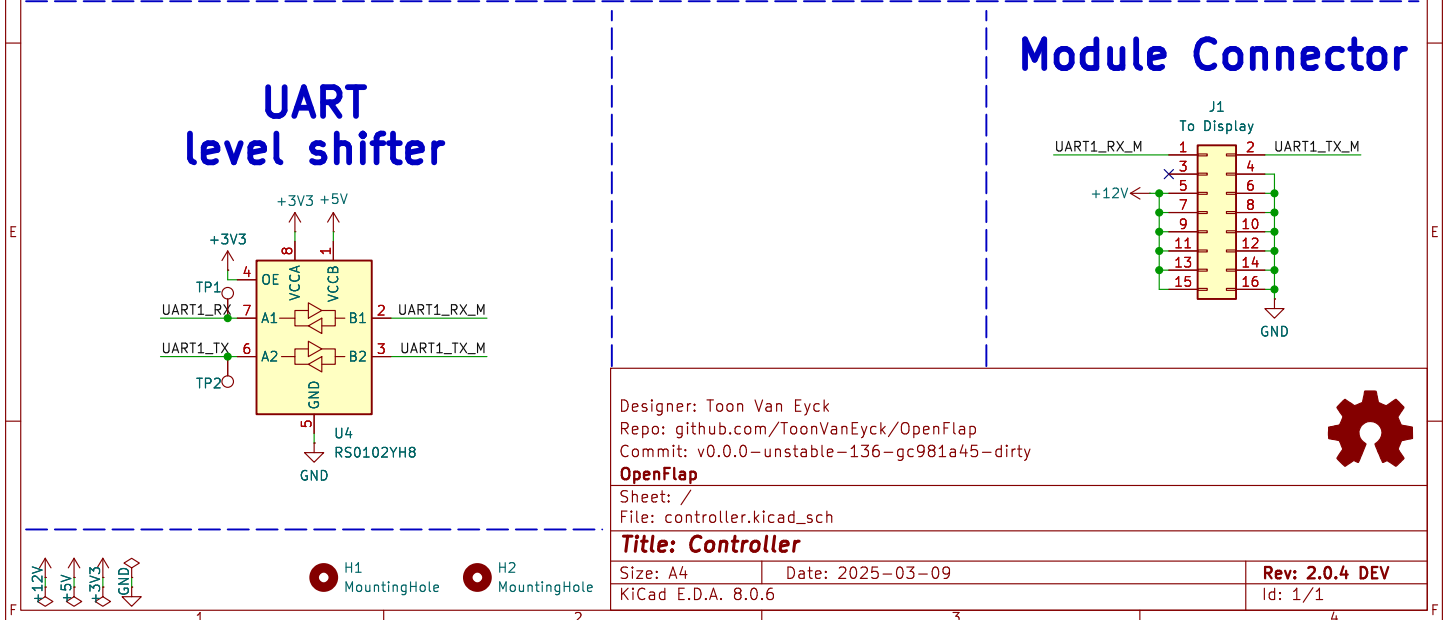
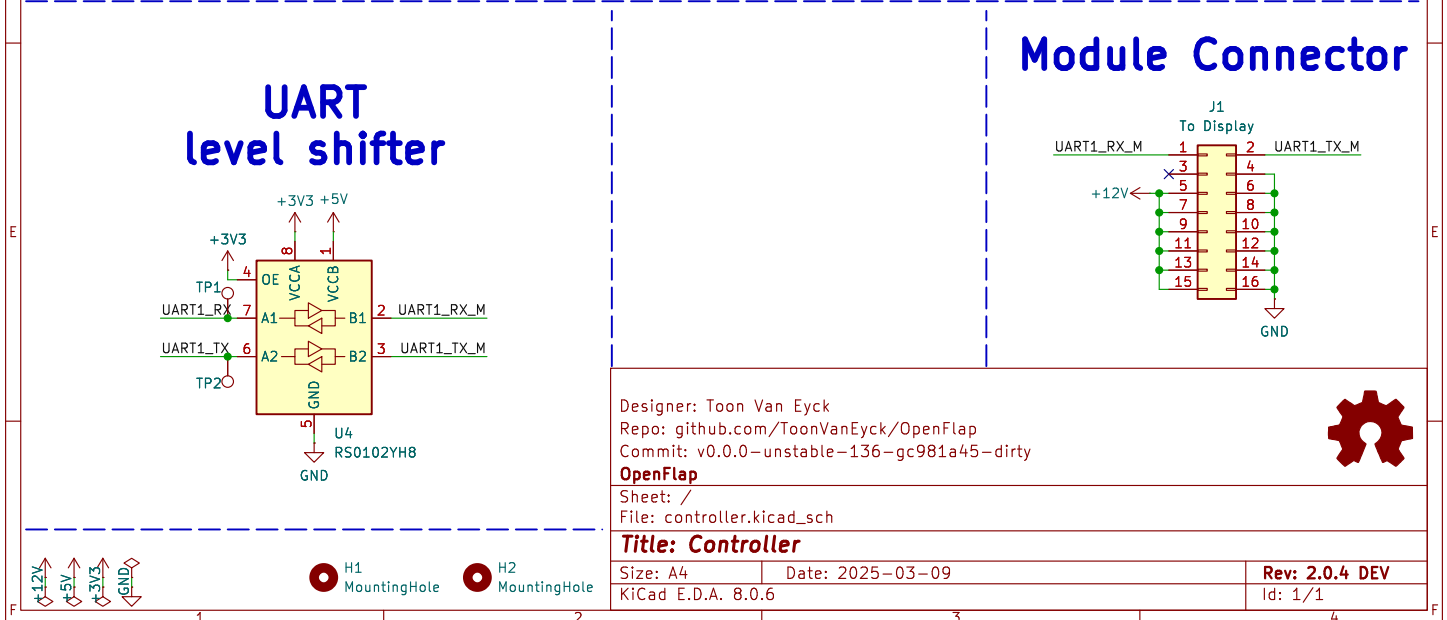
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Power Conversion

The left diagram shows a +12V input connected to a barrel jack switch (J3) and a voltage divider (C7, C8) to the EN pin of an XL1509-3.3 converter (U3). The output of U3 is +3V3, which is filtered by C9. The right diagram shows a +12V input connected to a voltage divider (C4, C5) to the EN pin of an XL1509-5.0 converter (U2). The output of U2 is +5V, which is filtered by C6. Both converters have their VIN, GND, and FB pins connected to ground. Inductors L1 and L2 are connected between the OUT and SW pins of the converters.

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UART level shifter

The schematic shows a yellow component labeled U4 RS0102YH8. It has two input pins on the left: TP1 connected to UART1_RX_M (+3V3) and TP2 connected to UART1_TX_M (+3V3). It has two output pins on the right: B1 connected to UART1_RX_M (+3V3) and B2 connected to UART1_TX_M (+3V3). The top pins are labeled OE, VCCA, and VCCB, all connected to +3V3/+5V. The bottom pins are labeled GND and GND, both connected to ground.

Module Connector

The pinout diagram for connector J1 shows 16 pins. Pins 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, and 16 are shown. Pin 1 is connected to UART1_RX_M (+3V3), pin 2 to UART1_TX_M (+3V3), pin 3 to +12V, pin 4 to GND, pin 5 to GND, pin 6 to GND, pin 7 to GND, pin 8 to GND, pin 9 to GND, pin 10 to GND, pin 11 to GND, pin 12 to GND, pin 13 to GND, pin 14 to GND, pin 15 to GND, and pin 16 to GND.

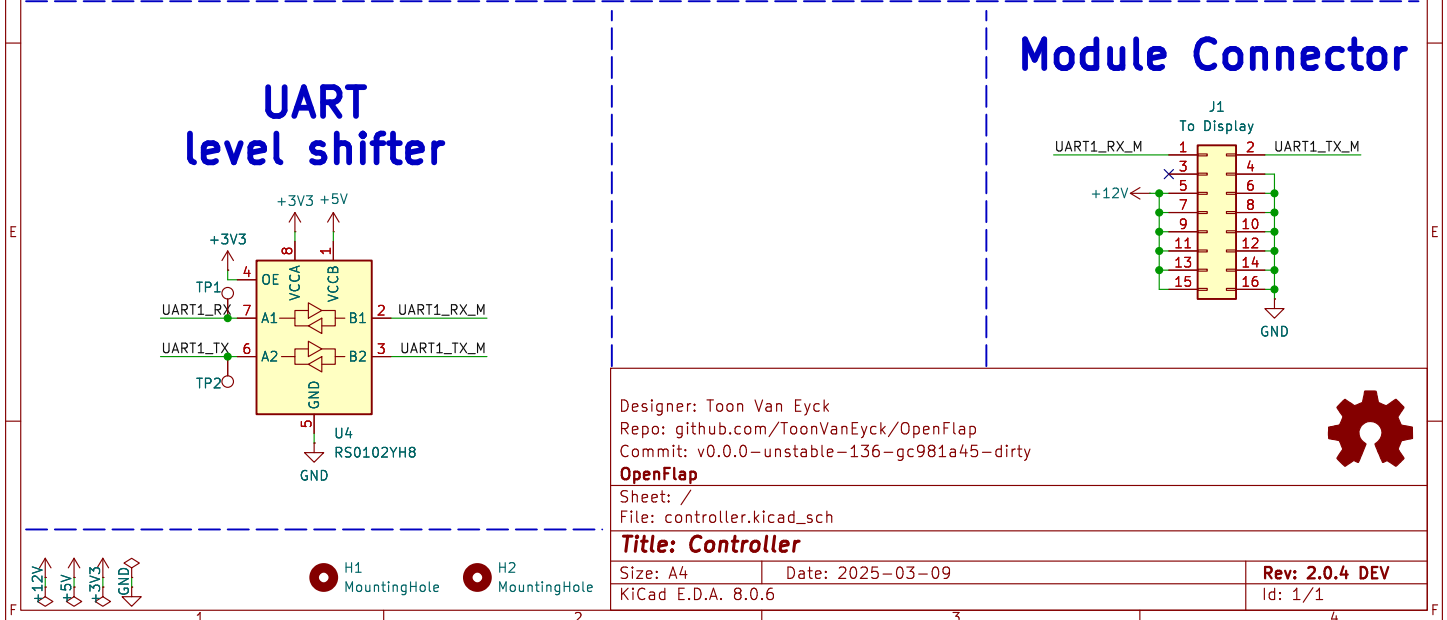
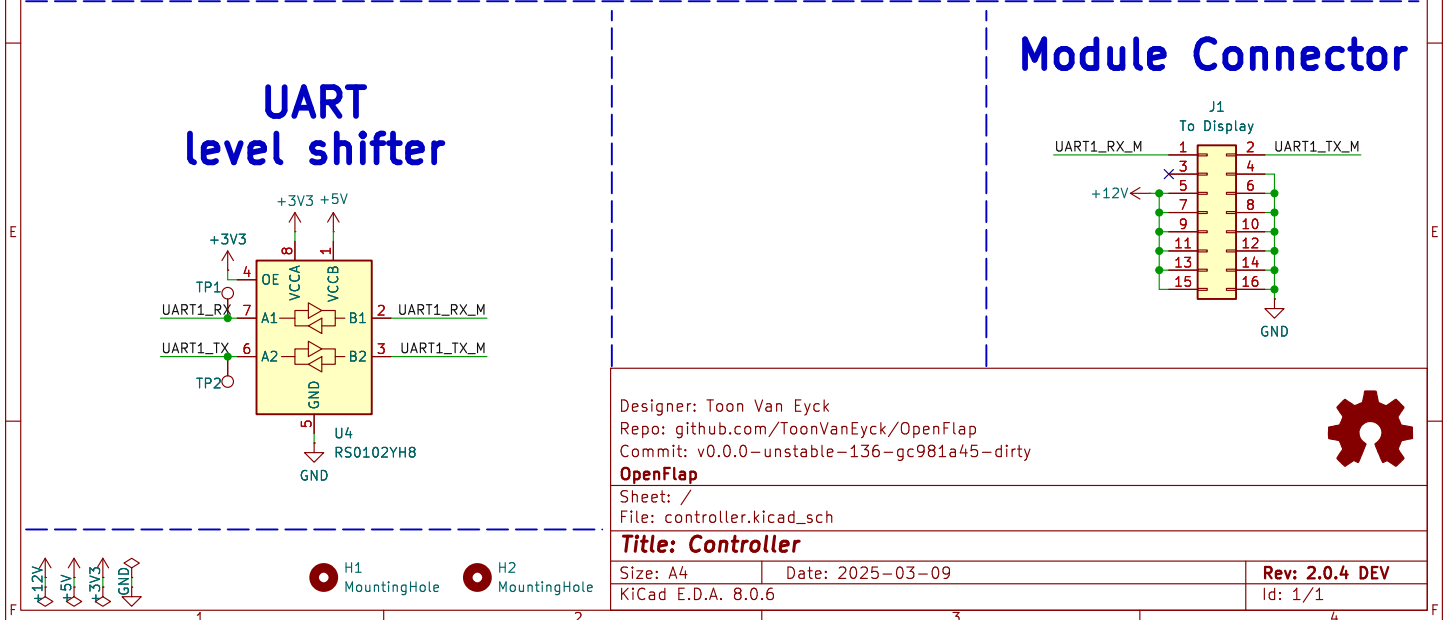
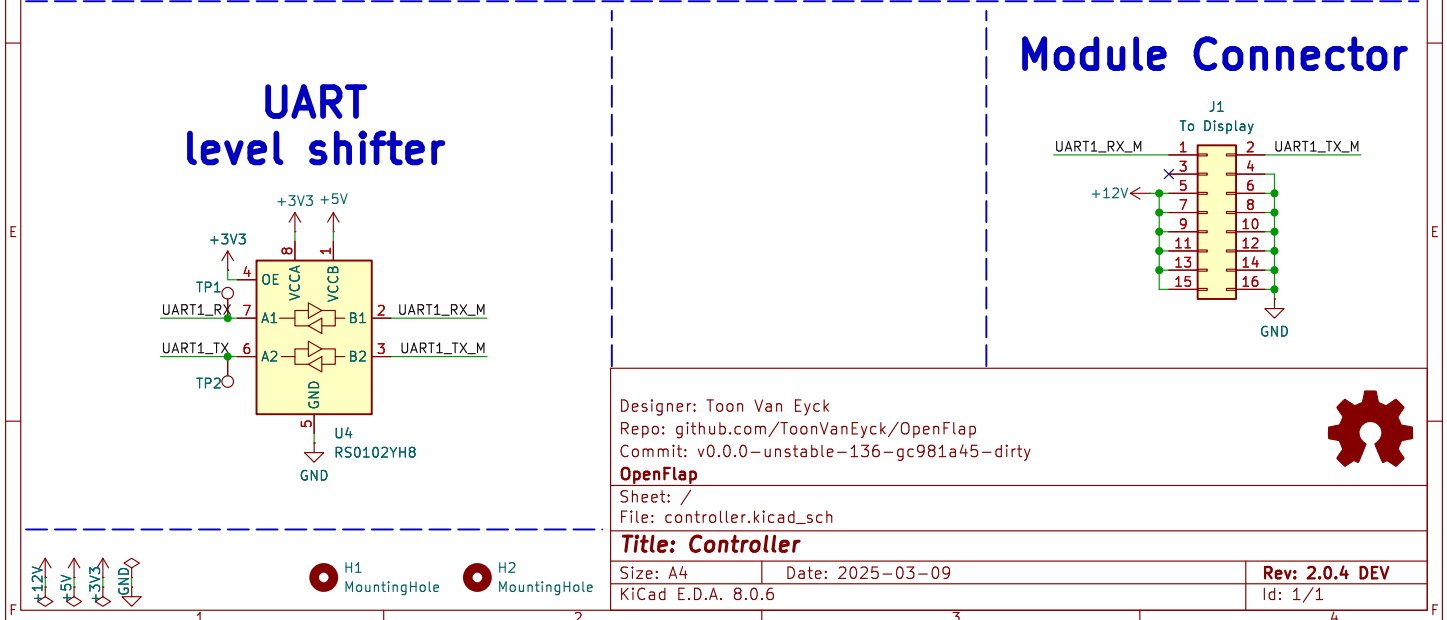
Designer: Toon Van Eyck
Repo: [github.com/ToonVanEyck/OpenFlap](#)
Commit: v0.0.0-unstable-136-gc981a45-dirty

OpenFlap

Sheet: /
File: controller.kicad_sch

Title: Controller

Size: A4	Date: 2025-03-09	Rev: 2.0.4 DEV
KiCad E.D.A. 8.0.6		Id: 1/1

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