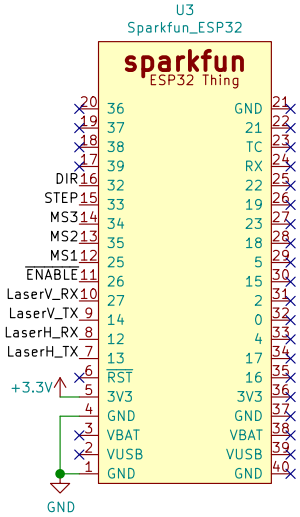
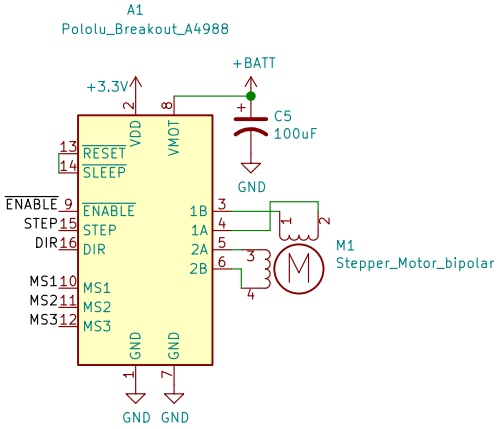
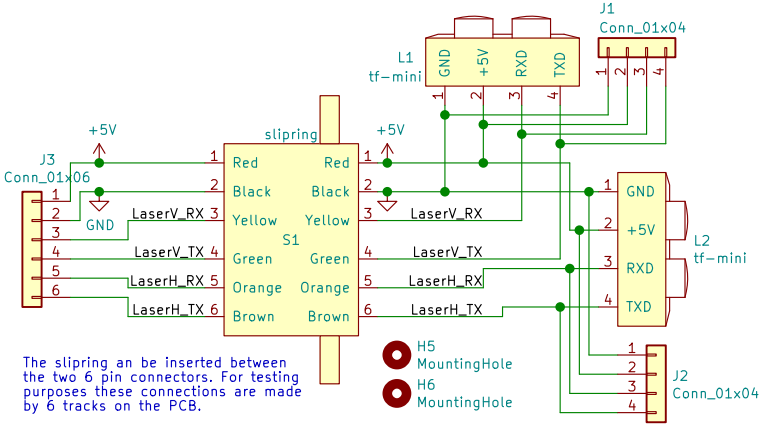


The Sparkfun variant of the ESP32 microcontroller is used here. This microcontroller supports remappable pins, and only one row of pins is used. Any ESP32 dev board can be used instead, but care should be taken to map the physical pins on the board to the communication lines on the PCB.

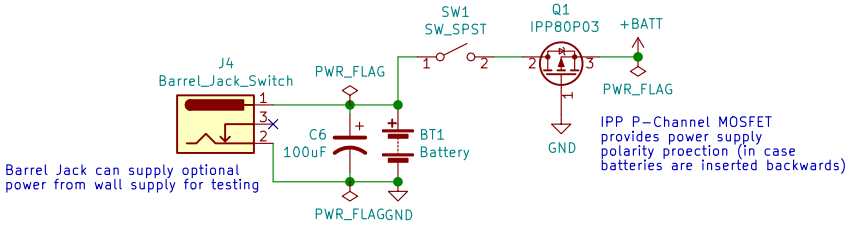


The Pololu breakout board for the stepper motor control



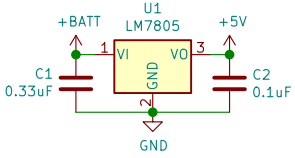
The slipring an be inserted between the two 6 pin connectors. For testing purposes these connections are made by 6 tracks on the PCB.

The lasers have two potential connectors, a 2.54mm pitch connector, and a Hirose 1.25mm connector. Both are on the PCB and can be optionally used depending on which connector comes with the laser.

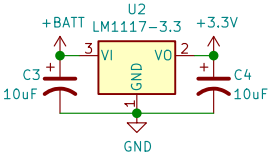


Barrel Jack can supply optional power from wall supply for testing

IPP P-Channel MOSFET provides power supply polarity proection (in case batteries are inserted backwards)



Power supply for lasers



Power supply for microcontroller and stepper motor driver

Matt Grau
EAWAG

Sheet: /
File: volaser.sch

Title: Volaser Measurement Unit

Size: A4	Date: 2018-11-15	**Rev: 1**
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