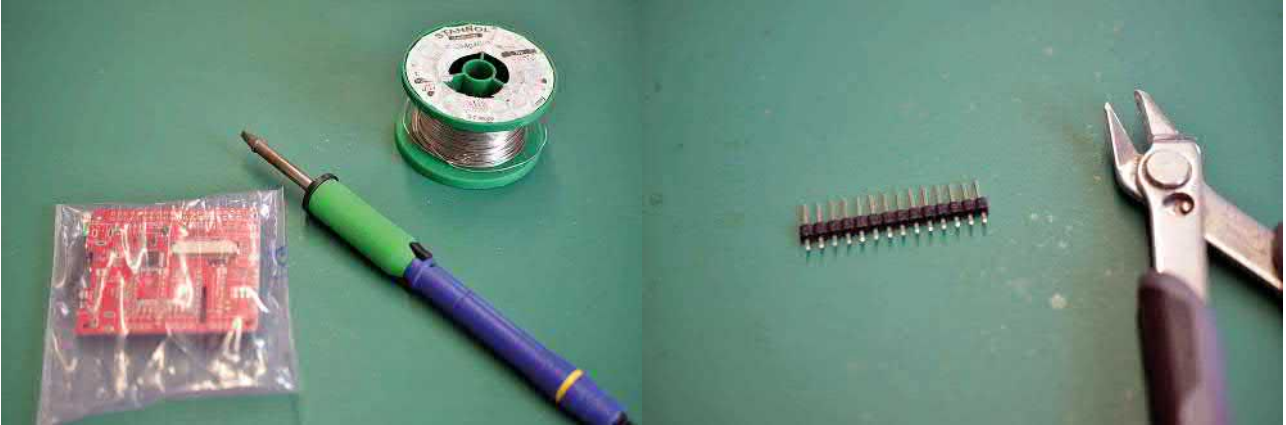


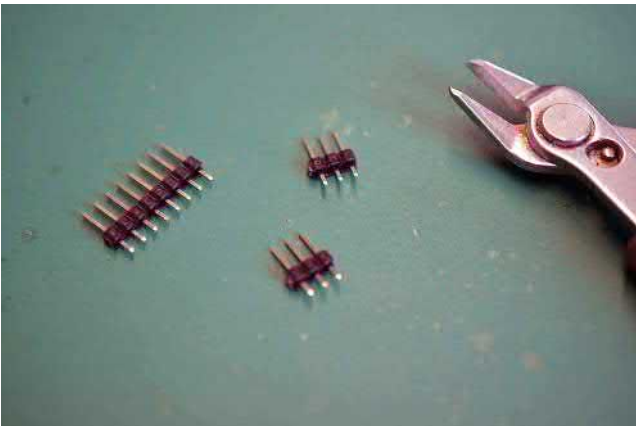
RPi-FabScan-HAT Assembly

Material:

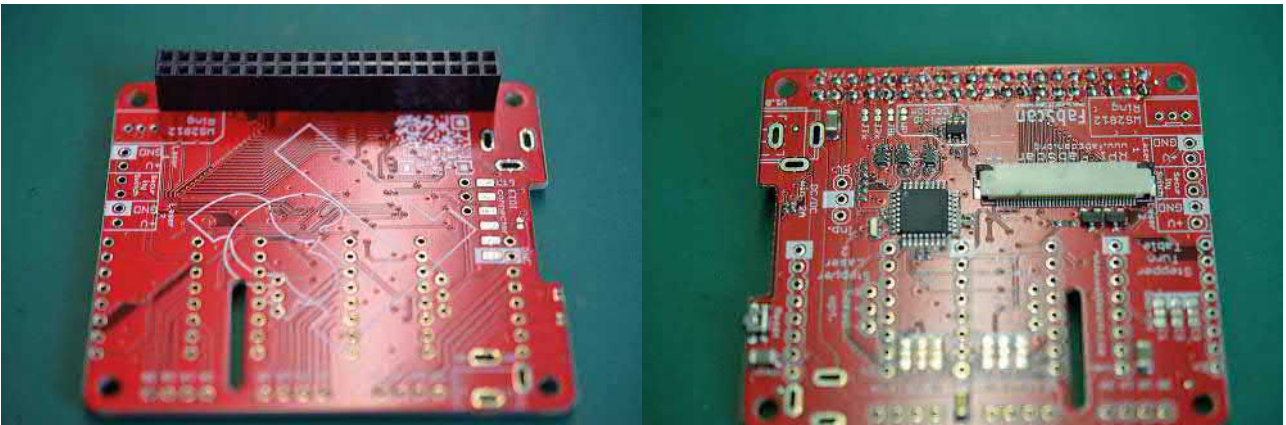
- Soldering iron
- Solder wire
- Side cutter
- RPi-FabScan-HAT kit
- V7805-2000 voltage regulator



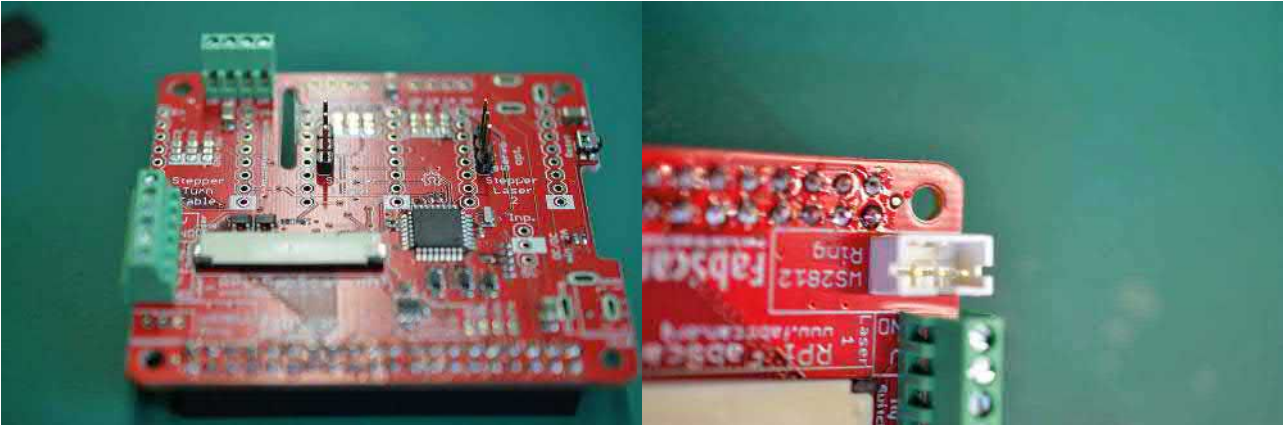
1. Cut 2pcs of 3 pins from the male pin header.



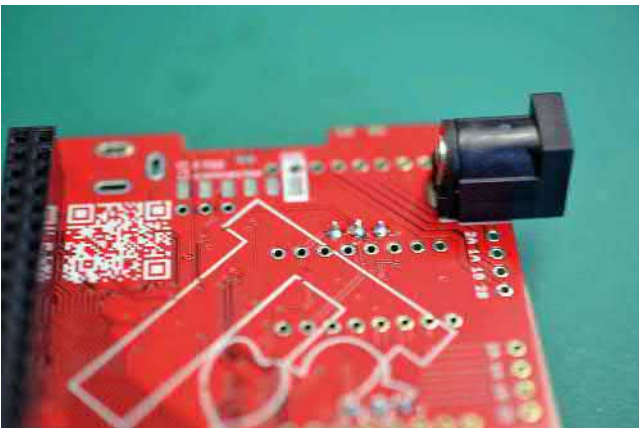
2. Place the 2x20 pin socket at the soldering side of the PCB and solder all pins from the component side.



3. Place the 3pin male pin header to the Laser 1 and Laser 2 pins, then add the 4pin screw terminal to the stepper turn table output and the 6pin terminal to the laser and security switch pins. Then solder all pins from the soldering side of the PCB. Now add the 3pin JST PH connector for the WS2812 camera light and solder it also.

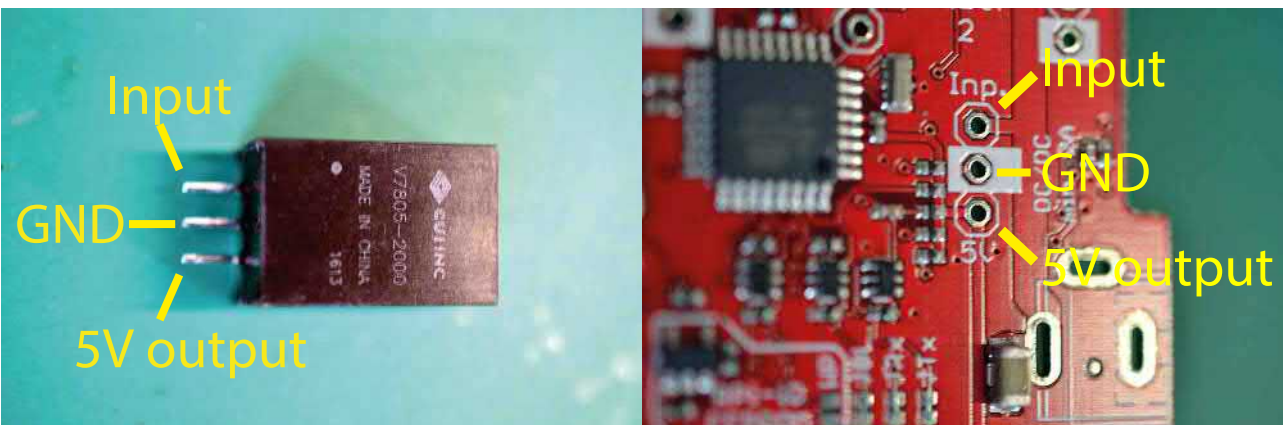


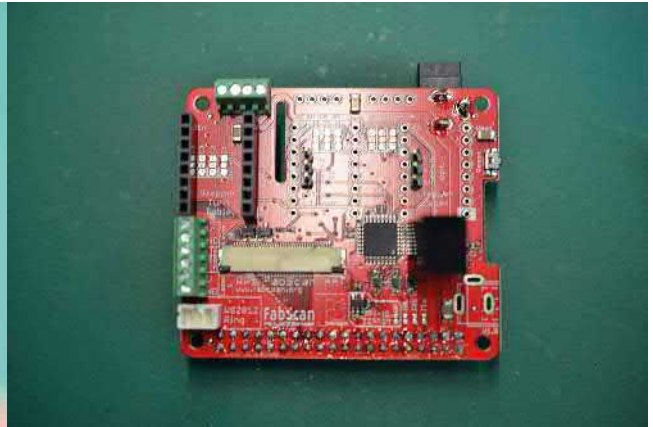
4. Add the DC jack on the soldering side of the PCB and solder it from the component side.



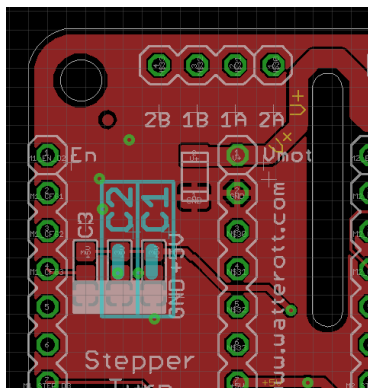
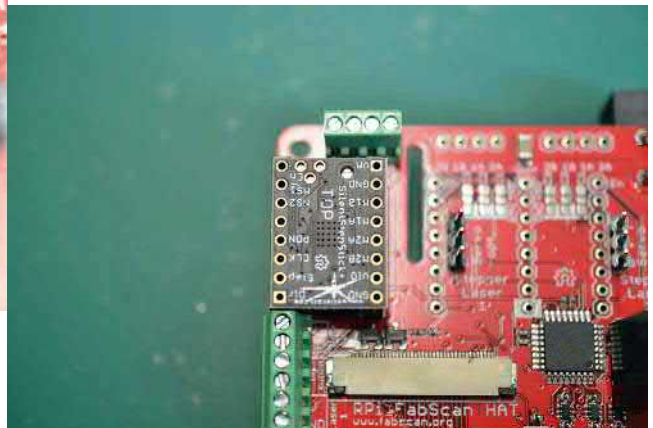
5. Mount the V7805-2000 DC/DC voltage regulator.

Note: A wrong connection of the regulator will burn the RPi-FabScan-HAT and a connected Raspberry Pi.





Now all components you need for the FabScan Pi project are mounted and you only have to place the stepper motor driver. The enable pin of the driver is on the top left in the photo below.



Step Configuration

TMC2100: C1 + C2 + C3 jumpers open (default state)

TMC220x: C1 + C2 set to +5V

Current Setting (Vref)

0.5-0.9V (0.4A to 0.6A RMS)

If you need more than one stepper motor driver you can add the other headers. The HAT is able to carry 3 StepStick or SilentStepStick stepper motor drivers.

