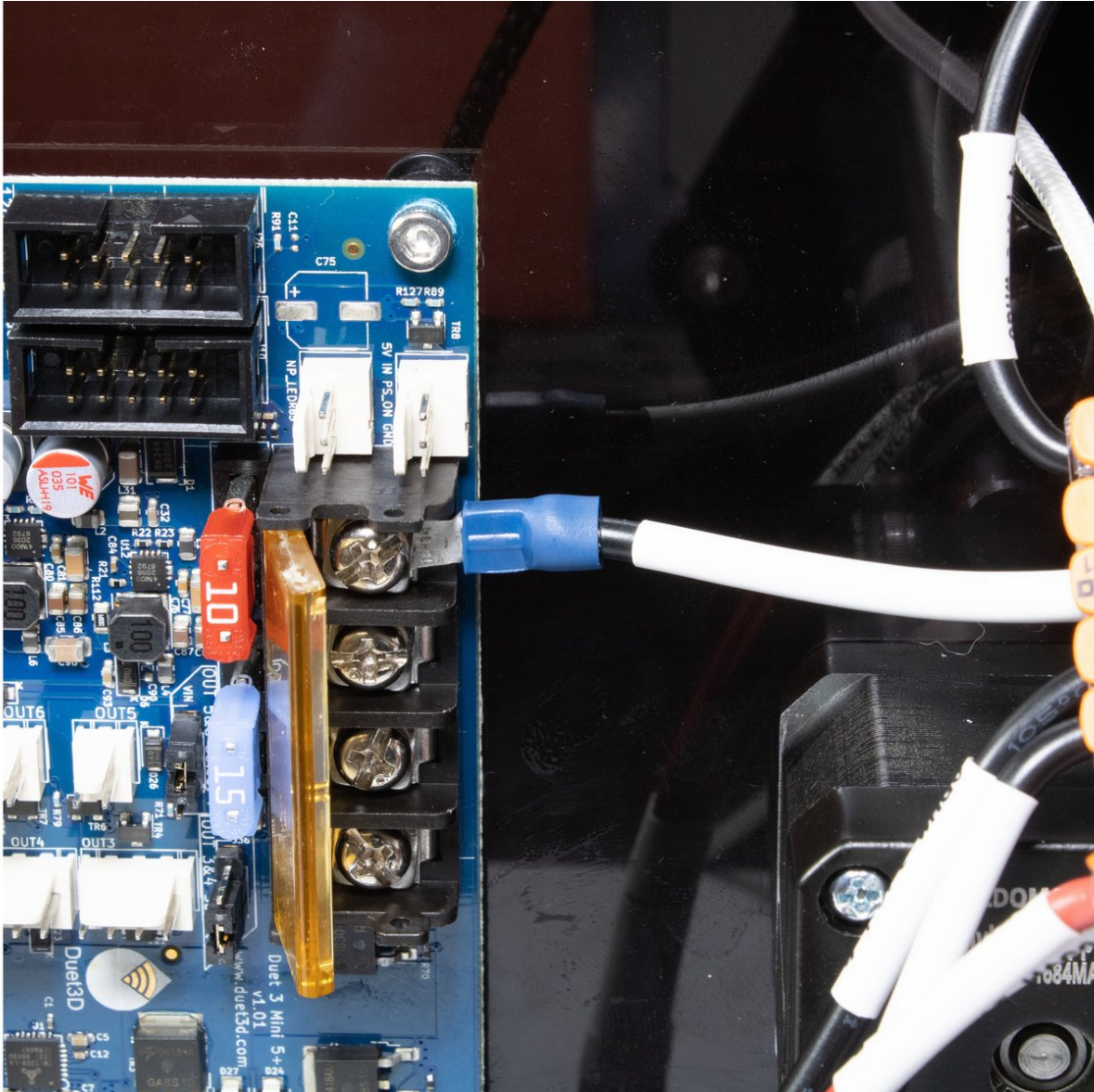


# railcore

## Q) Wiring the Electronics

Written By: Ben Withem

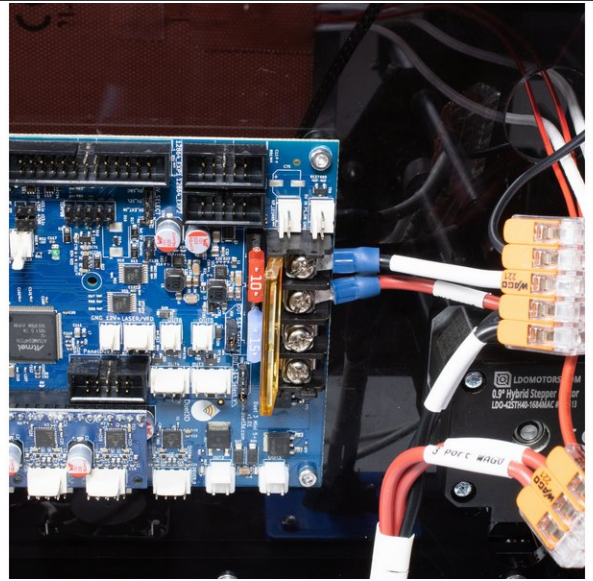
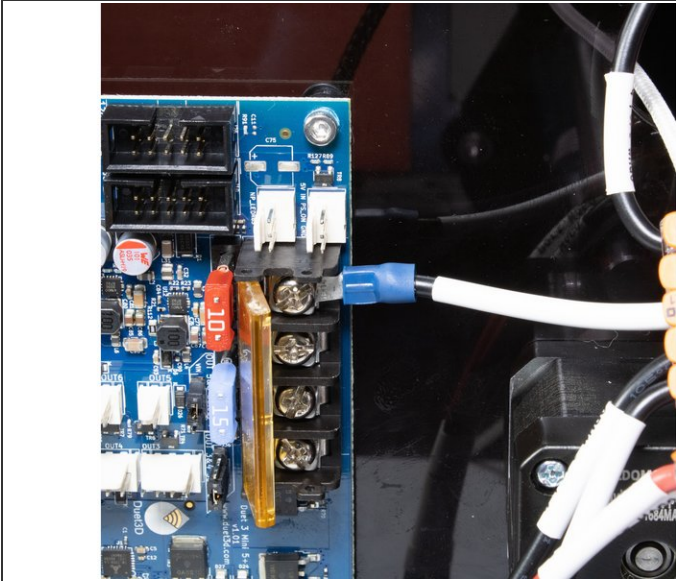




## PARTS:

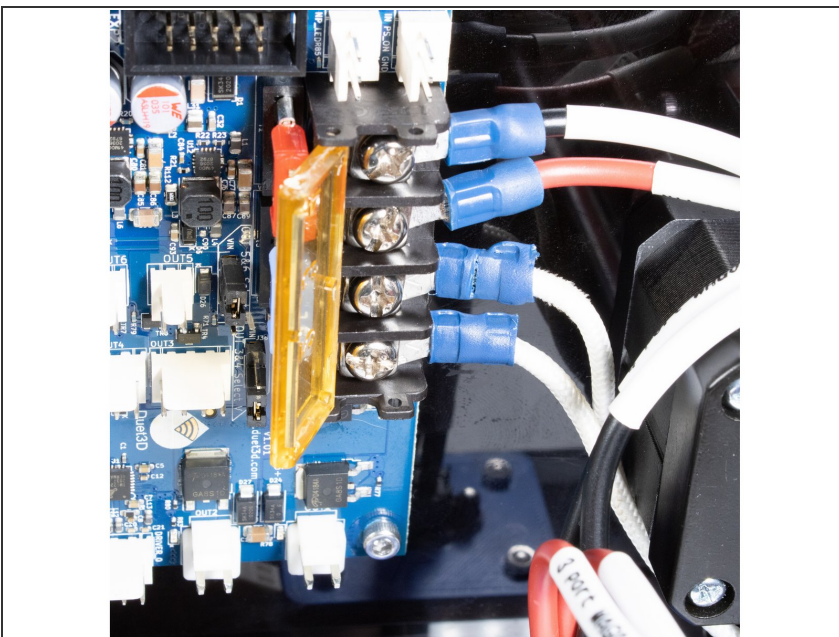
- [Mini Printed IO Panel](#) (1)
- [M3 Nut](#) (2)
- [M3 x 10 Socket Head Screw](#) (2)
- [M3 Washer](#) (2)

## Step 1 — Power Duet



- The black wire labeled Duet GND from the 6 slot Wago connector attaches to the first GND on the Duet.
- The red wire labeled Duet 24v from the 3 slot Wago connector attaches to the first VIN terminal on the Duet.

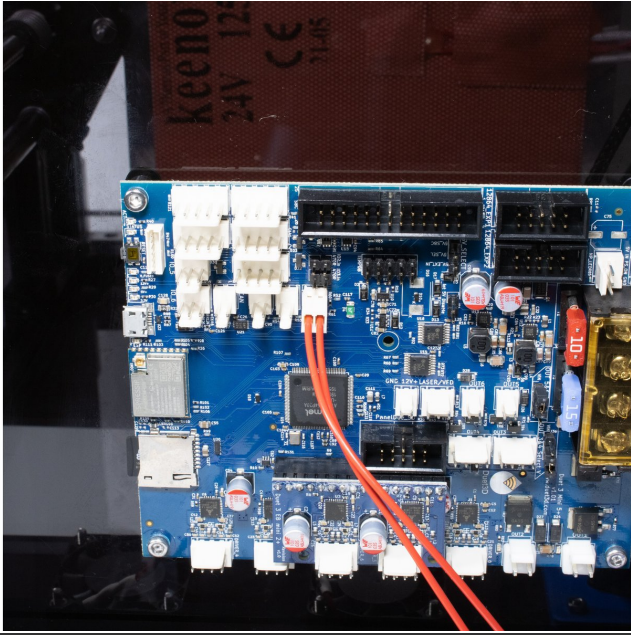
## Step 2 — Power Bed



- The ring terminals coming from the bed should attach to the remaining terminals (OUT 0).

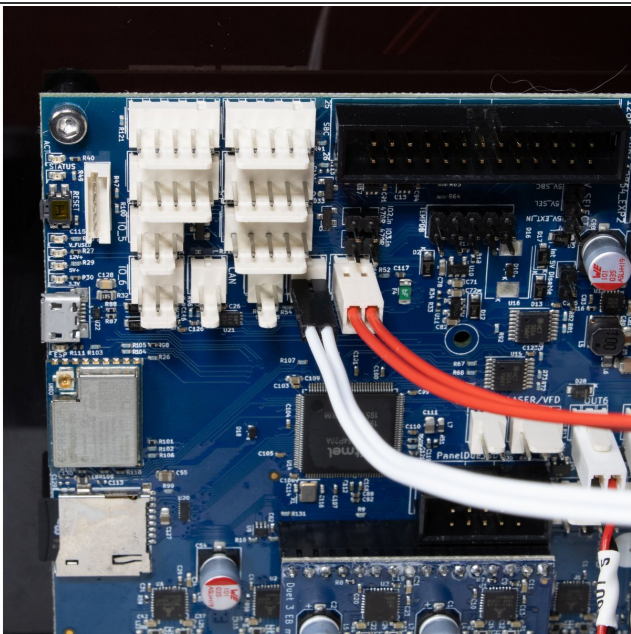


### Step 3 — Bed Thermistor



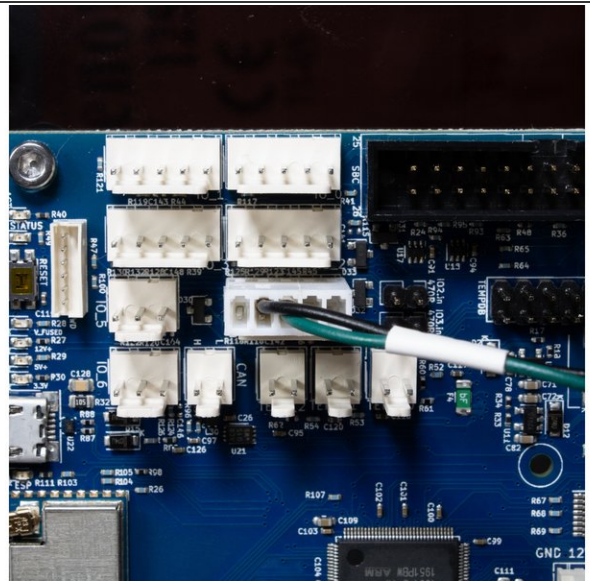
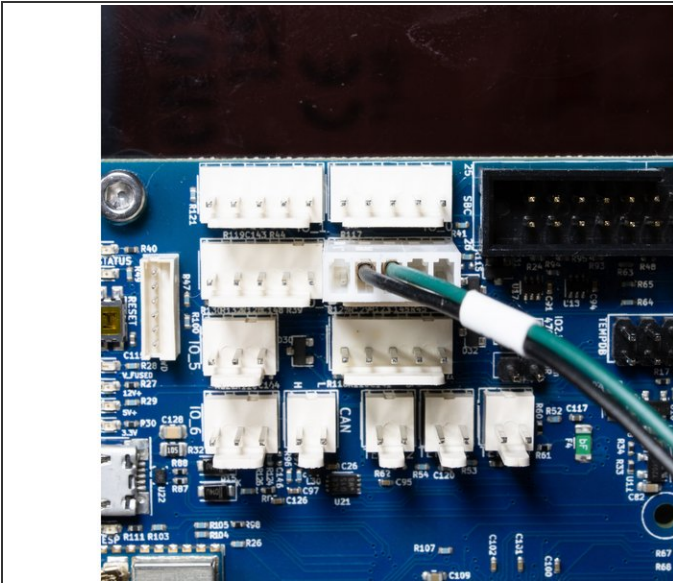
- The bed thermistor connects to Temp 0.

### Step 4 — Hotend Thermistor



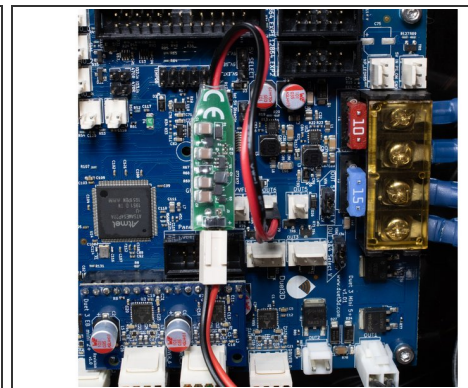
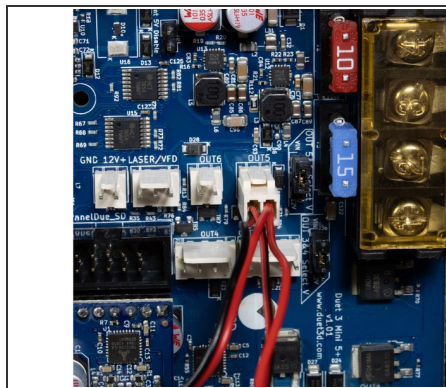
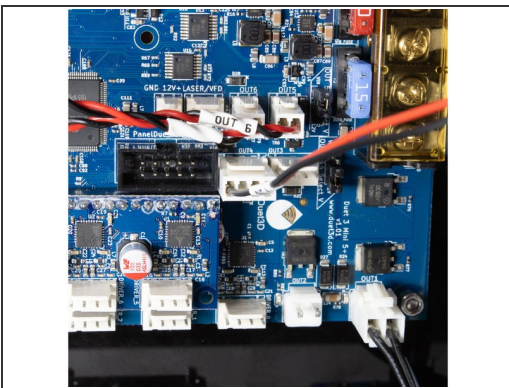
- The hotend thermistor plugs into temp1 .

## Step 5 — End Stops



- Wire the X endstop to io.2.
- Wire the Y endstop to io.4.

## Step 6 — Fans

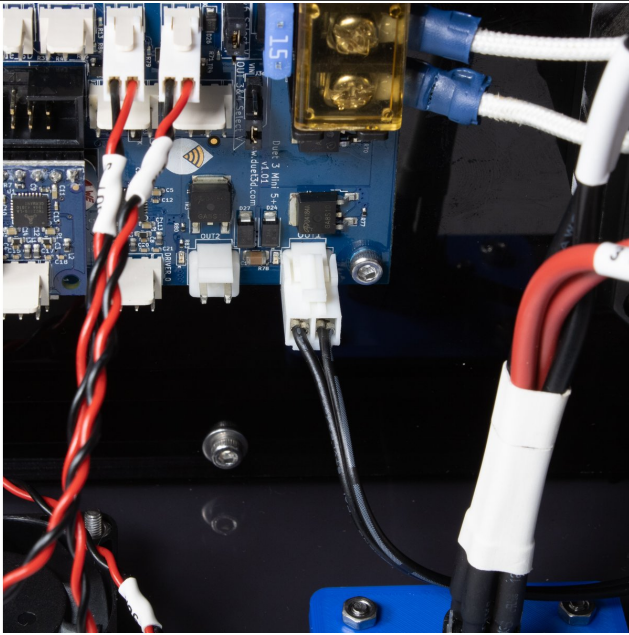


- Wire the layer fan to out4.
- Panel fans are wired to out5.
- Hotend fan is wired to out6.

**⚠ If you are using the E3D Revo Micro, your hotend fan must use the included 24v -> 5v buck converter.**

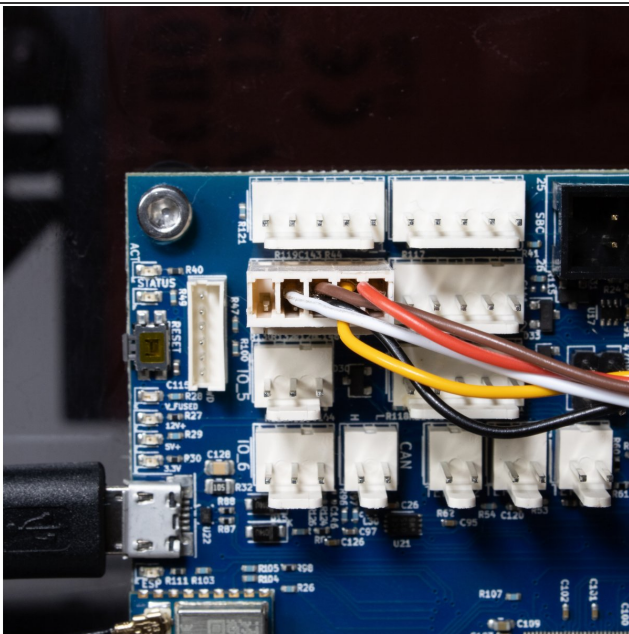


## Step 7 — Hotend Heater



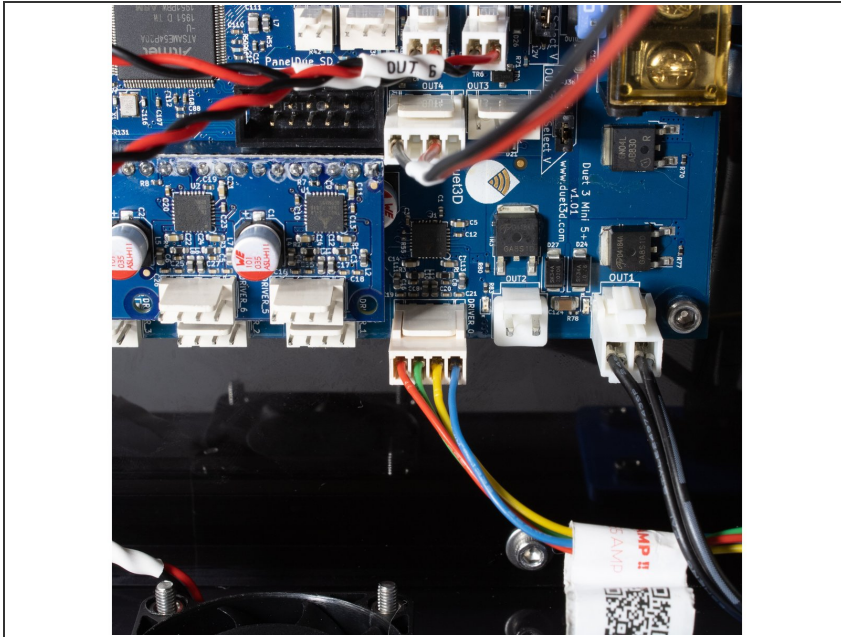
- The hotend heater is wired to out1.

## Step 8 — BLTouch



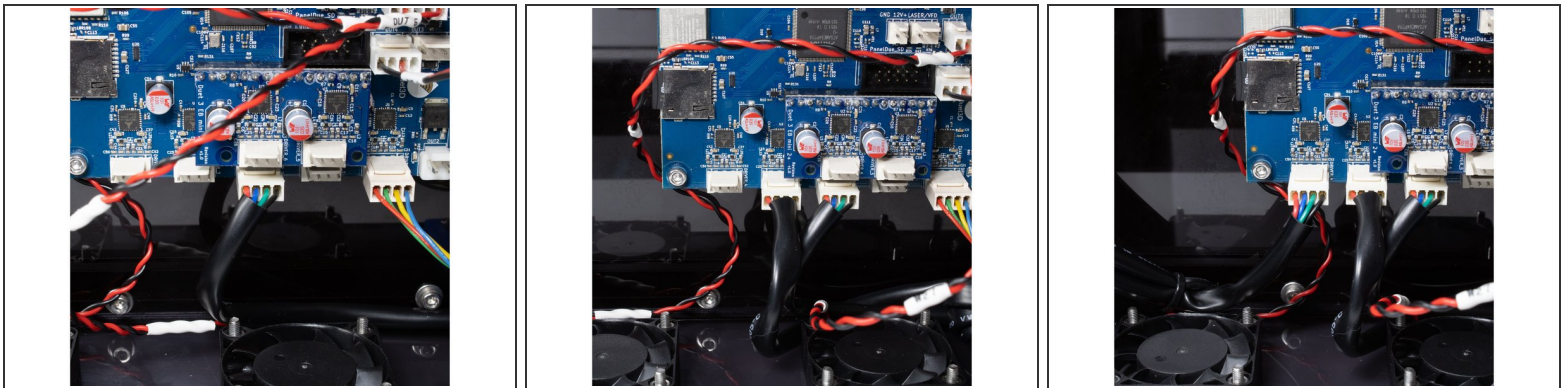
- The BLTouch is wired to io3.

## Step 9 — Extruder



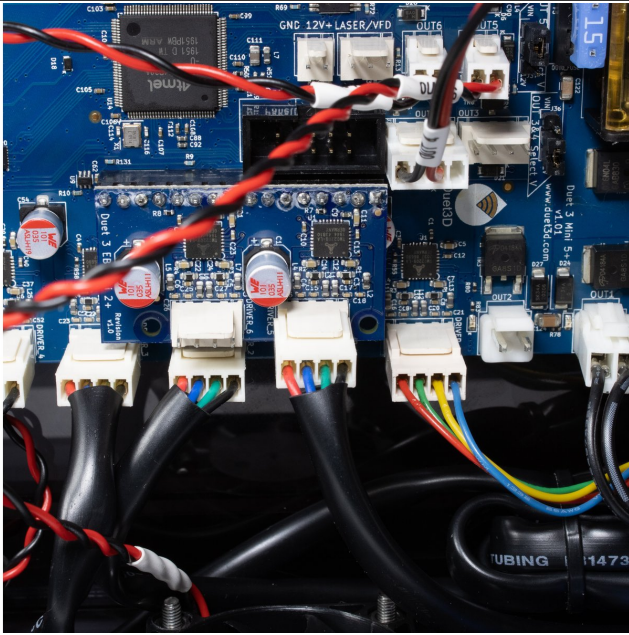
- The extruder is wired to Drive 0.

## Step 10 — Z Axis



- Front right Z stepper is wired to Drive 2.
- Rear right Z stepper is wired to Drive 3.
- Left Z stepper is wired to Drive 4.

## Step 11 — X/Y Axis



- X stepper (front) is wired to Drive 5 on the expansion board.
- Y stepper (rear) is wired to Drive 6 on the expansion board. This is the last free driver on the expansion board.

## Step 12 — WiFi Antenna



- Using (2) M3 x 10 socket head screws, washers and nuts, attach the antenna and USB extender to the outside of the printer panels.
  - Plug the USB extension and WiFi pigtails into the Duet.
- ⓘ [https://duet3d.dozuki.com/Wiki/Getting\\_S...](https://duet3d.dozuki.com/Wiki/Getting_S...)