6. Assemble Duet Controller

Assembling the Duet 3D Controller with Fans and Mounts.

Written By: Robert



Step 1 — Fixing the Cable Ties into position

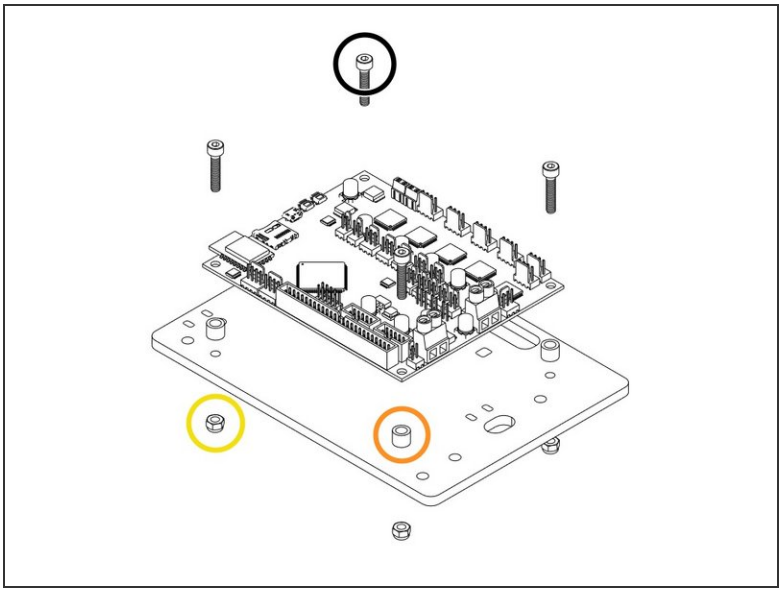


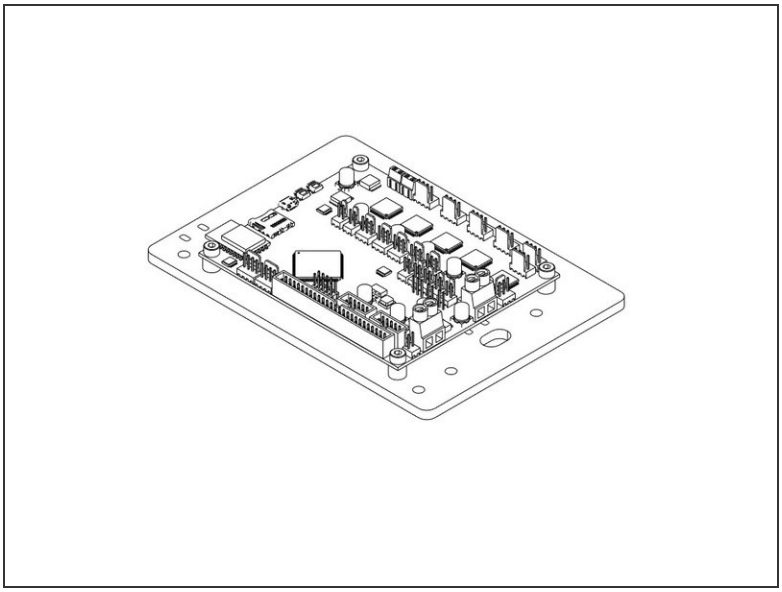


⚠ Making sure the board is orientated in the correct way as displayed in the image.

- The Large Cable Tie highlighted in Orange is for the 4 Stepper Motor Cables and the Limit Switches.
- The Small Cable Tie highlighted in Red is for the power cable.
- The Small Cable Tie highlighted in Yellow is only needed if you have the Ethernet Version, and is to secure the Ethernet Cable.

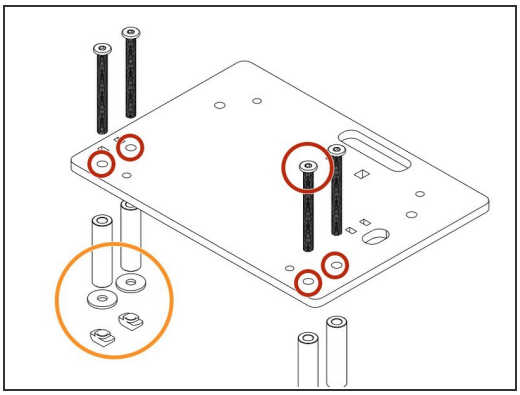
Step 2 — Mounting the Controller to the Duet Mount

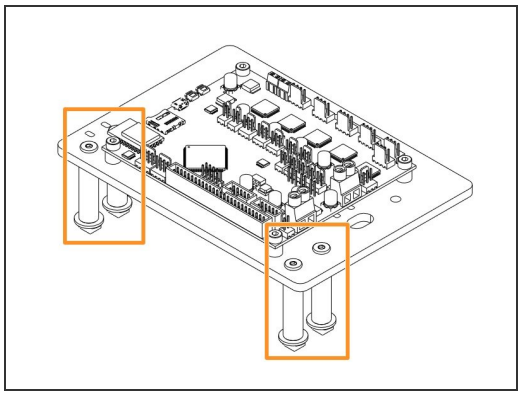


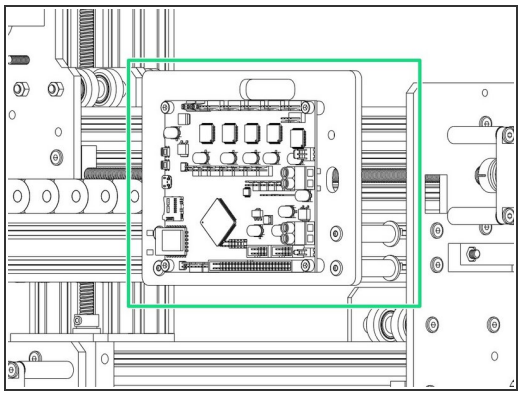


- Insert a M4 Cap Head Bolt 20mm through each hole on all 4 corners on the Duet 3D Controller.
  - Onto each bolt slide a 1/4" Nylon Spacer.
  - Now it is time to join the Duet to the Duet Mount. Insert the bolts into the holes on the Duet Mount and secure using 4 x M4 Nyloc Nuts.

Step 3 — Mounting the Controller to the Machine

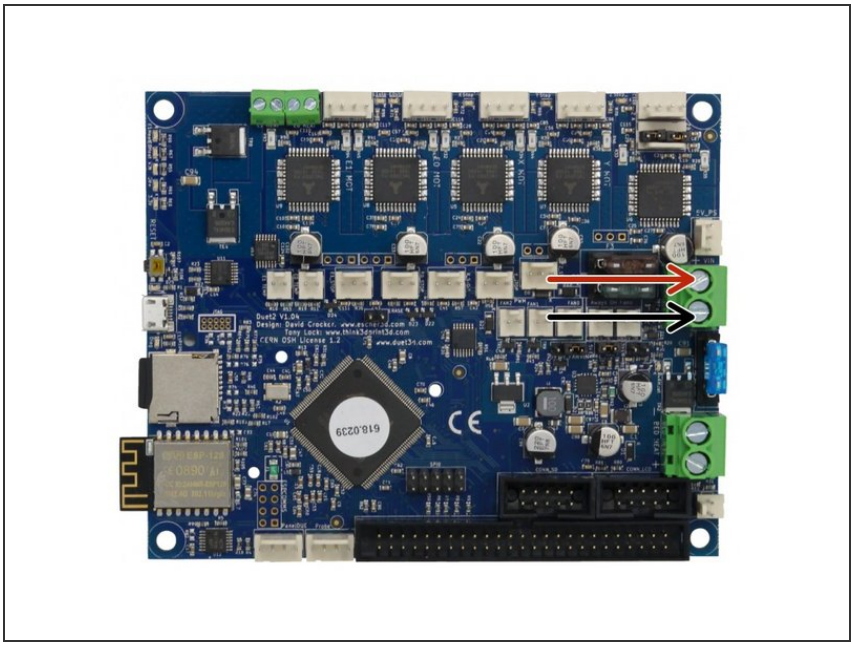






- Insert 4 x 50mm M5 Low Profile Bolts through the holes indicated in the image.
- Place a 1-1/2" Aluminium Spacers over each bolt followed by a Slot Washer and finally a M5 Drop in Tee Nut.
- Once assembled line up with the 2040 Extrusion on the right-hand side of the machine looking from the back and fix into place tightening the M5 Bolts until the Tee Nuts engage

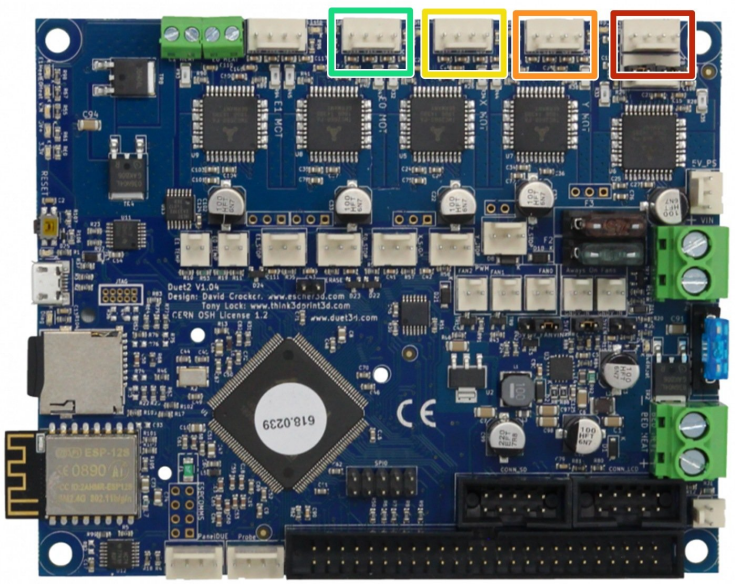
Step 4 — Connecting the PSU Input Cable



⚠ The Mains Power should remain off during all wiring of the Duet Controller.

- PSU Cable from Power Supply - Connect Red Positive Wire into the Top Screw Terminal and Black into Bottom Screw Terminal.

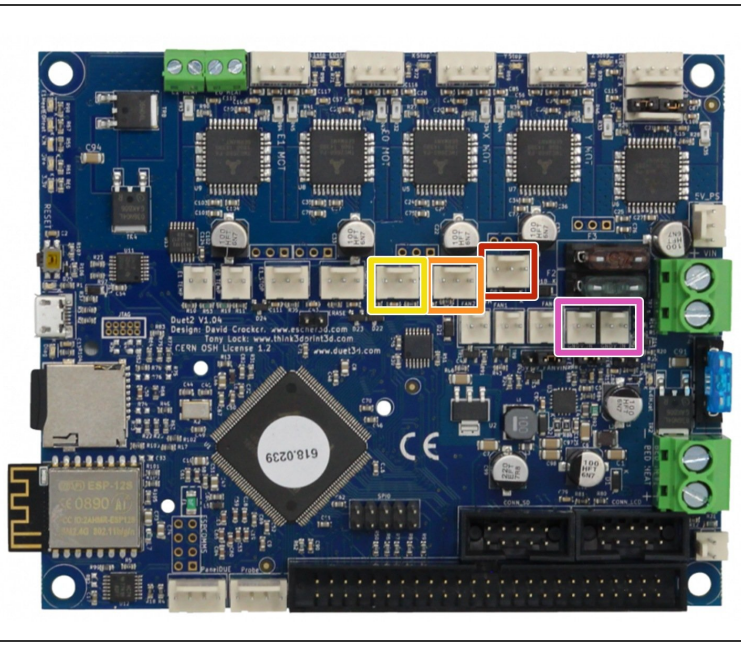
Step 5 — Stepper Motor Connectors



ⓘ The connectors for the Duet controller are keyed, so there is only one way which they can plug in.

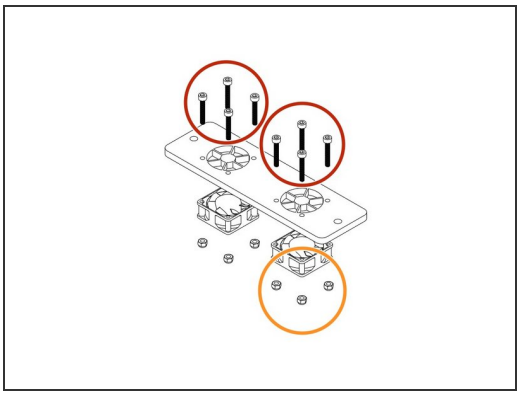
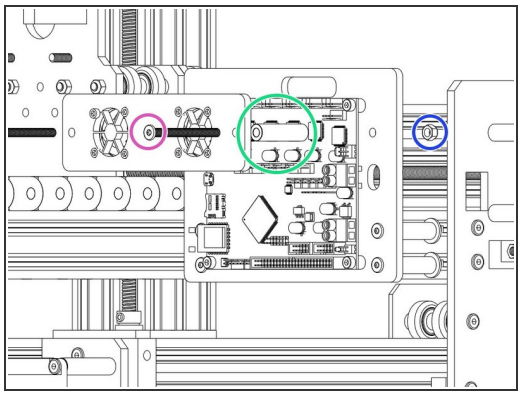
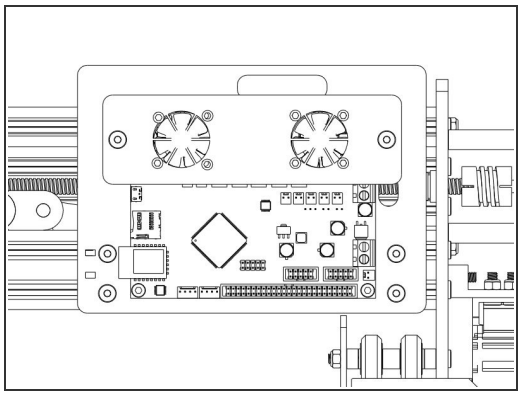
- Z-Axis Stepper Motor Wire.
- Left Y-Axis Stepper Motor Wire.
- X-Axis Stepper Motor Wire.
- Right Y-Axis Stepper Motor Wire.

Step 6 — Limit Switches & Fans



- Z-Axis Limit Switch
- Y-Axis Limit Switch
- X-Axis Limit Switch
- Fans connected to either of the Always on Fan Terminals.

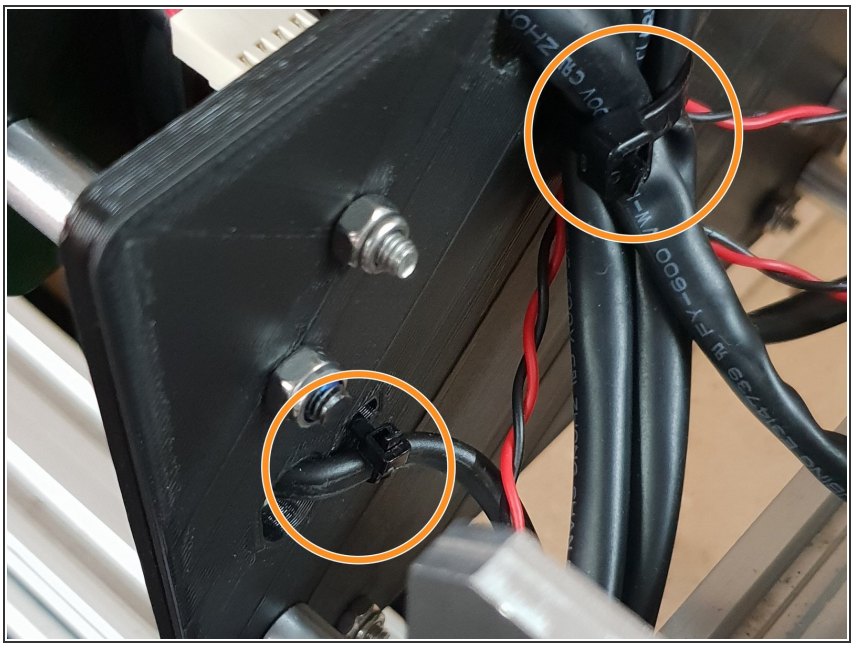
Step 7 — Mounting the Fans to the Board

- Use 8 x M3 Cap Head 20mms to fix the fans highlighted in Yellow onto the Mount with the Fan label facing outward.
  - Secure the M3 Cap Head 20mm's using 8 x M3 Nyloc Nuts.
- Thread 2 x M5 55mm Low Profile Bolts through the fan mount.
- Slide the Aluminium-Spacers-1-1/2" over the bolts.
- Now attach to the Main Board mount using 2 x M5 Nyloc Nuts.

⚠ Remember to connect the fans to Always on Fan connection of your Duet Controller before tightening the M5 Nyloc Nuts.

Step 8 — Tidying your Wires



- Using the already inserted cable ties fix the wires into place securely to prevent any unnecessary movement and to keep the machine looking neat!
  - ⓘ If you have the Ethernet version also secure that.

Thanks for following the guide. Any issues, please contact us!