railcore

P) Electronics

This guide will take you through installing the electronics components and wiring on your RailCore II kit

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Step 1 — P) Electronics

⚠ Newer Filastruder kits use Socket Cap Head Screws, use them in place of all button head screws in this section unless noted.

Step 2 — Safety

⚠ THE RAILCORE IS A "DIY" PROJECT - BUILD SAFE, BUILD SMART, AND BE RESPONSIBLE.
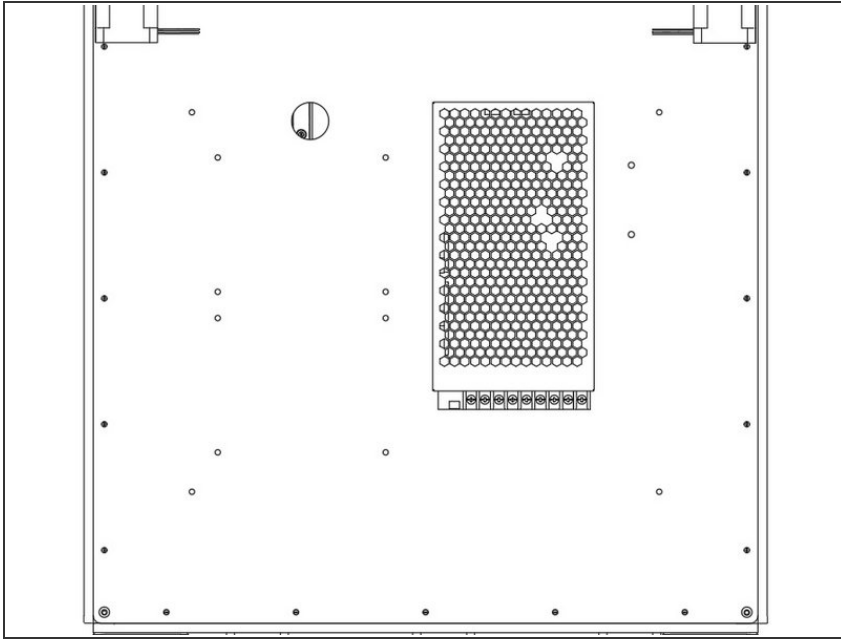
⚠ BUILD AT YOUR OWN RISK.

⚠ WHEN IN DOUBT, DOUBLE CHECK THINGS.

⚠ 3D PRINTERS CAN GET VERY HOT. USE COMMON SENSE AND QUALITY COMPONENTS.

⚠ If you need help, find us at the RailCore Facebook page or RailCore Discord channel. Both are linked from RailCore.org

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Step 3 — Power Supply

⚠️ Check the voltage setting on the side of your Power Supply before installing it.
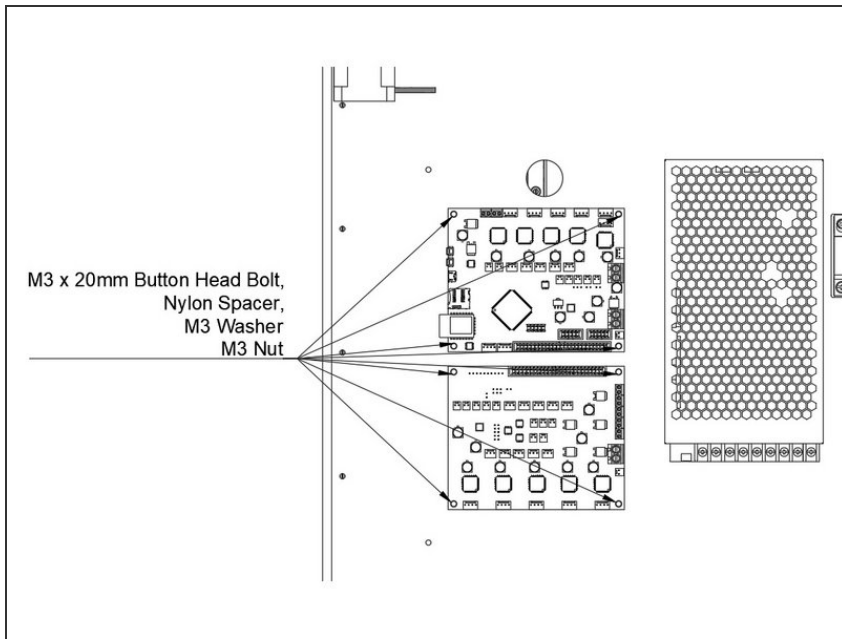
- Attach the PSU using (4) M4 x 10mm Button Head Bolts. The bolts go through holes in the right panel, and into the back of the PSU.

- Be sure to install the PSU so the wiring terminals are to the bottom of the printer.

Step 4 — SSR

M4 x 10mm Button Head Bolt, M4 Nut
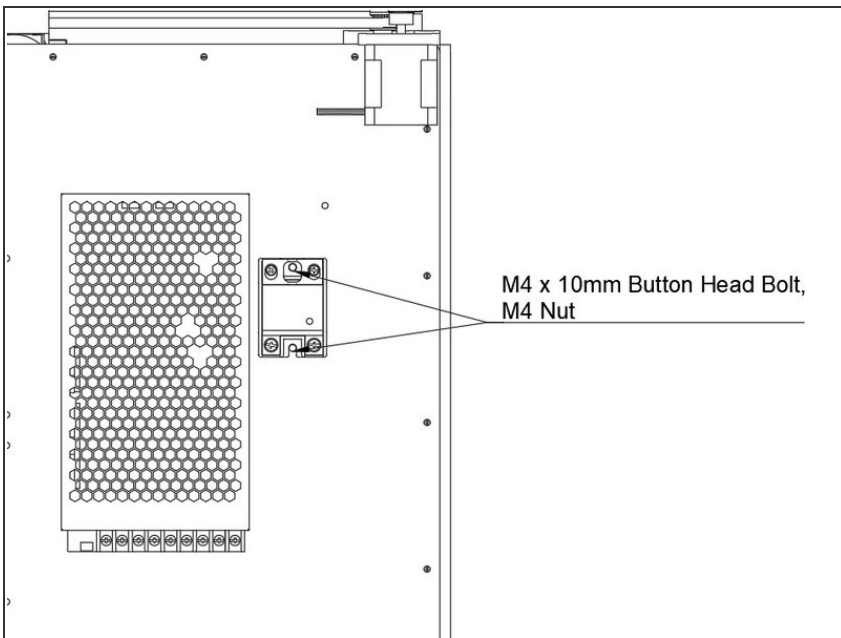
- Install the SSR as shown.

- Each hole is held in place using (1) M4 x 15mm Socket Cap Head Screws and an M4 nut & Washer

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Step 5 — Duet and Duex5

M3 x 20mm Button Head Bolt,
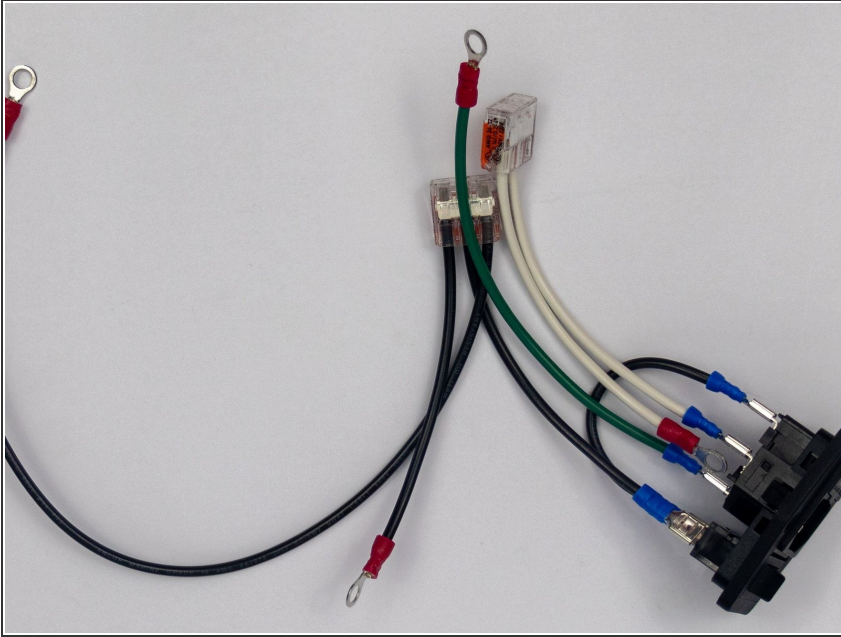Nylon Spacer,
M3 Washer
M3 Nut

- Attach the Duet and Duex5.

- Be sure the Duet is on top, Duex5 is on bottom.

- Pay careful attention to the orientation.

- Mount them by putting one M3 x 16mm bolt through the board. Put the black nylon 5mm tall spacer behind the board.

- (i) The image says 20mm, it needs to be corrected.

- Pass the bolts through the panel, attach with an M3 Washer and M3 nut.

Step 6 — Rear Ebox Corners

M3 x 20mm Button Head Bo
(2) M3 Washers,
M3 Nut
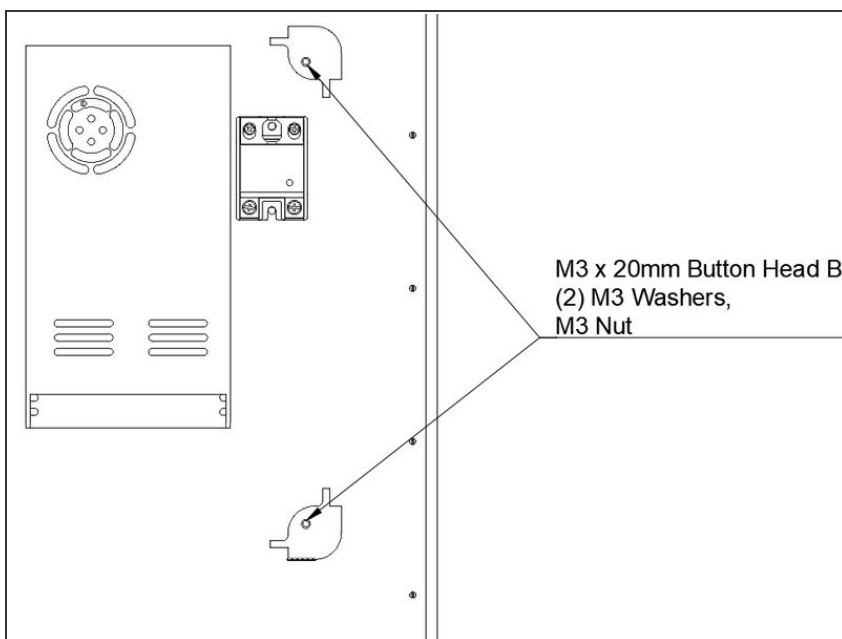
- Attach the two rear Ebox Corners.

- Use an M3 x 16mm Socket Cap Head Screws and washer.

- (i) Image says 20mm bolt, will be corrected

- Pass them through the short side of the Ebox corner, and through the right panel.

- Fasten with an M3 washer and M3 nut.

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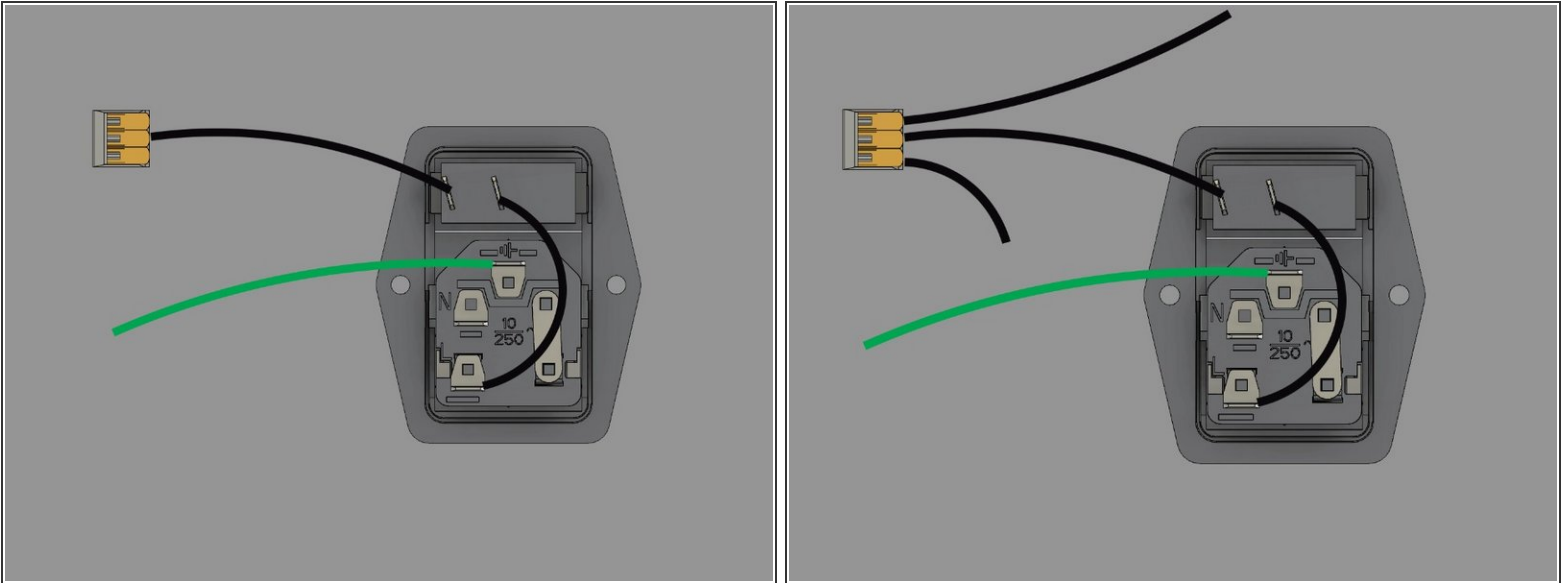railcore.dozuki.com/

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Step 7 — Power Switch

- The power switch in your kit should come pre-wired. This guide will walk you through it if it's not, and also serve as a way to double check it.
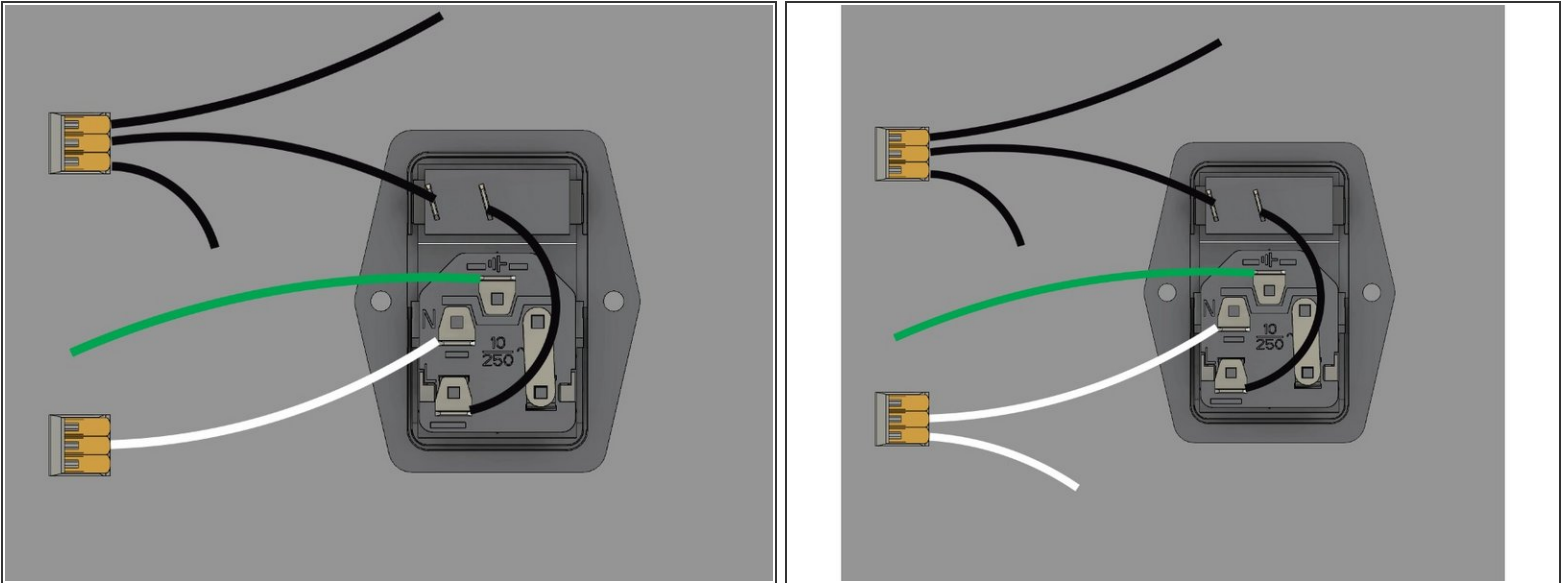
Step 8 — Power Switch
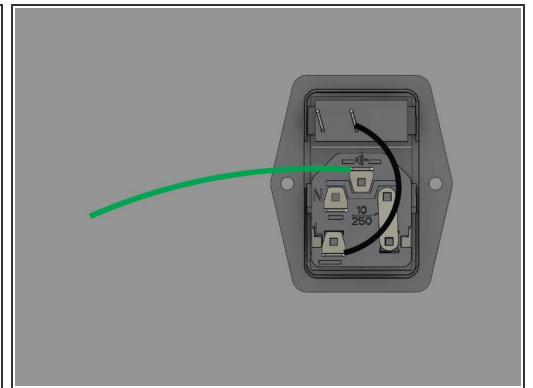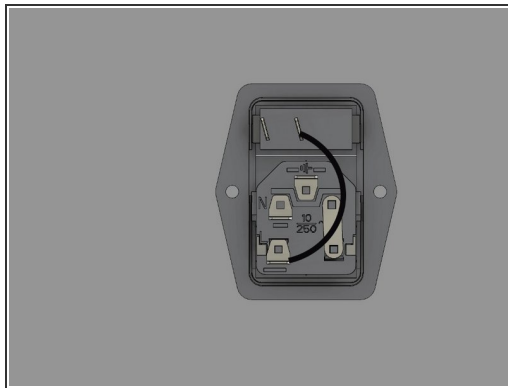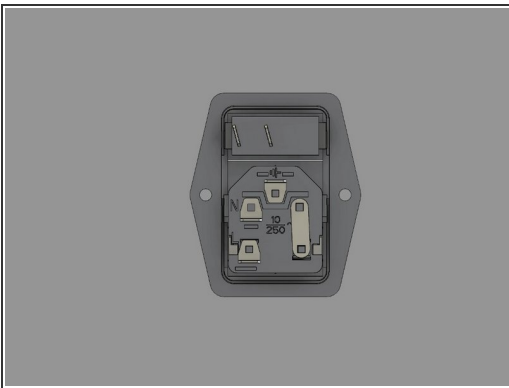
- If your switch isn't already wired, lay it face down as shown.

- Install the 75mm black wire between the switch and the fuse. It's a short black wire, with a spade terminal on each end.

- Install the 150mm green ground wire to the ground terminal on the plug. It has a spade terminal on one end, and a ring terminal on the other.

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Step 9 — Power Switch

- Install the 100mm black wire onto the other terminal on the switch. One end is a spade terminal, the other end is bare wire, and goes into a 3 connector WAGO.

- Add a 80mm black wire with a ring terminal into one slot in the WAGO, and a 300mm black wire with a ring terminal into the other slot in the wago.

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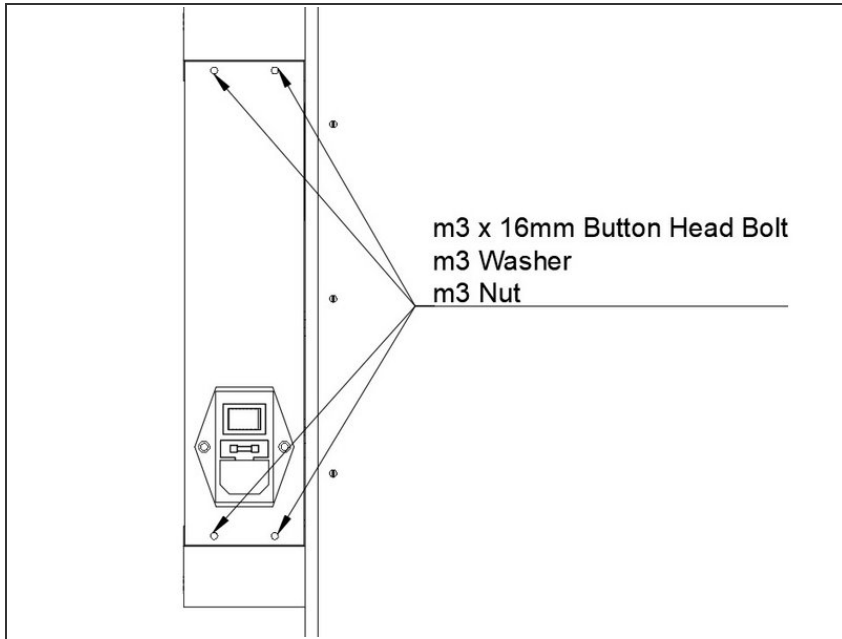Page 6 of 8

Step 10 — Power Switch

- Install a 100mm white wire into the remaining spot on the plug with a spade connector. The other end of the wire is bare, and goes into a 3 slot WAGO connector.

- Add the bare end of a 100mm white wire into the WAGO. The other end has a ring connector.

Step 11 — Power Switch / Plug

m3 x 12mm Tapered Head Bolt
m3 Washer
m3 Nut
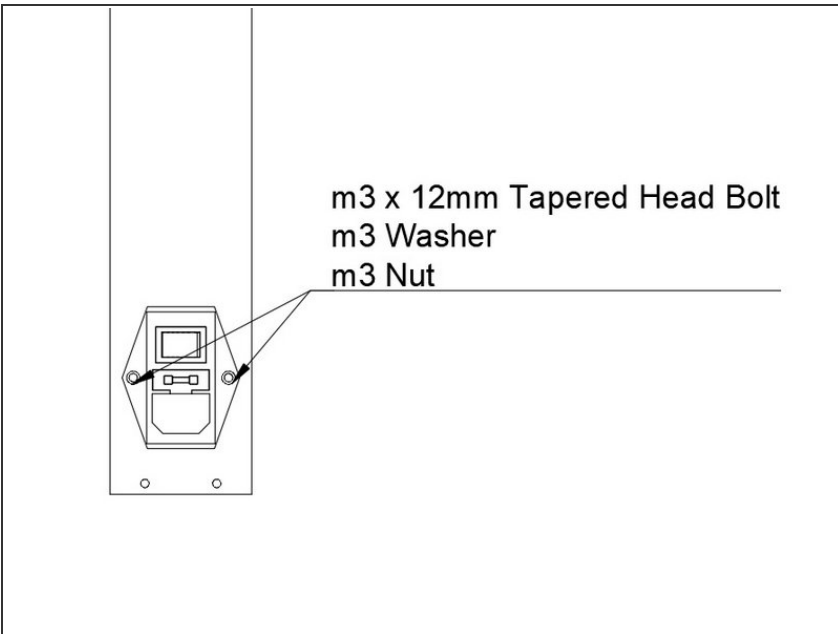
- Install the assembled and wired Power Switch / Plug module into the rear Ebox Panel.

- Pass the wiring already attached to the plug through the panel.

- Insert (2) M3 x 12mm Tapered Head Bolts through the switch and panel.

- Fasten using an M3 washer and M3 nut.

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Step 12 — Rear Ebox Panel

m3 x 16mm Button Head Bolt
m3 Washer
m3 Nut

- Install the Rear Ebox panel onto the Ebox corners you've installed.

- Pass an M3 x 16mm Button Head Bolt through each of the panel holes.

- Fasten each bolt using an M3 washer and M3 nut.

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