Lineux Toolchanger

LINEUX
- lee-knee-yurks
(noun)

toolchanger that print things you never know you need in a way you never imagine

- see also wizardry, mesmerizing

Lineux Stealth Dock Build Guide

2025-02-06

Discord

https://discord.gg/Xwqbjj4VjH

GitHub

https://github.com/Bikin-Creative/Lineux-Toolchanger

A big thank you to everyone who made this project possible.

CAUTION

- Please take careful precautions with safety in mind when attempting to build Lineux.
- Only attempt the build if you are knowledgeable with 3d printer mechanics and electronics.
- Failure to follow safety precautions may result in things going against you, or even harm you.
- Magnets are extremely strong and may cause injuries. Please handle them with extra care.
- If things start to get confusing or you’re stuck at some point during the build, do ask questions on our discord.
- We try to keep things as simple and as clear as possible for a fun and enjoyable build for everyone.
- We are humans and are prone to mistakes. If you encounter any issues/faults with the build guide, please raise them on our Discord.

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Part Printing Recommendations

Recommended setting/material to print your parts.

Material
ABS

Layer Height
0.2mm

Extrusion Width
0.4mm

Infill
40% (Grid, Gyroid, Honeycomb, Triangle, Cubic)

Number of Walls
4

Number of Top/Bottom
5

Parts Filename Guide

Primary Colour

Eg. carriage_A.stl

These are to be printed with your primary/base colour.

Accent Colour

Eg. [a]_locking_plate.stl

Files with [a] in front are to be printed with your secondary/accent colour. Parts will be indicated with the Lineux Logo beside it in this guide.

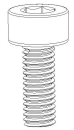
Quantity Required

Eg. belt_tensioner_x2.stl

Files ending with x# indicate the quantity required to be printed

To make your build easier, we recommend you to download the cad from our github to enable you to visualize the whole assembly.

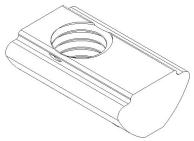
Button Head Cap Screw (BHCS)



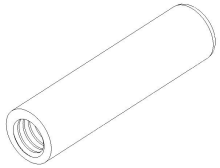
Socket Head Cap Screw (SHCS)

Heat Insert

n52 Magnet



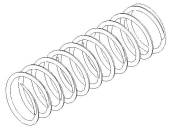
T-Nut



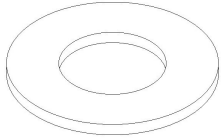
Threaded Dowel Pin

AA Battery Terminal

Hex Nut



Compression Spring



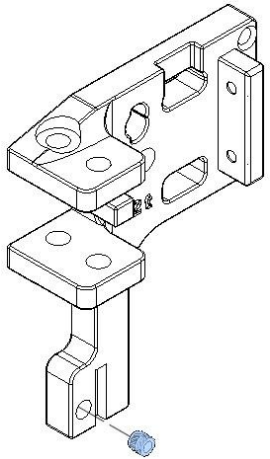
Washer

Lineux is a derivative of 2 words, Linear and Flux.

It is recommended to install all heat inserts first on all the parts prior to starting the build.

Dock

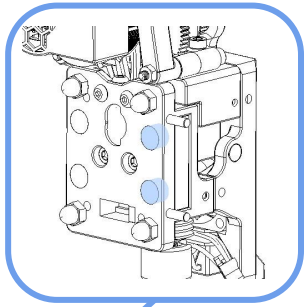
m3 heat insert

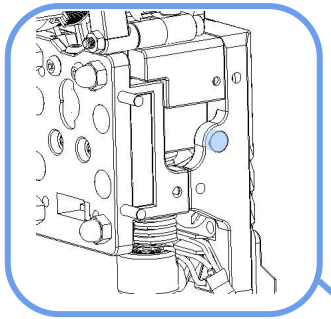


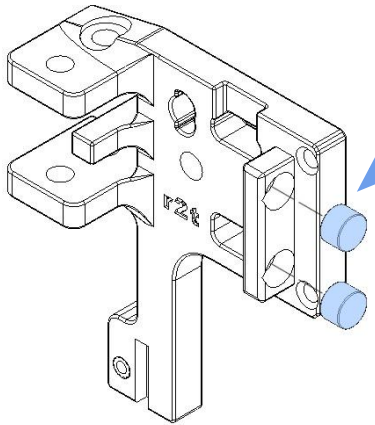
Preparation

Insert the heat insert to the Dock Body.

Lineux was first developed on a Vzbot 330 printer.

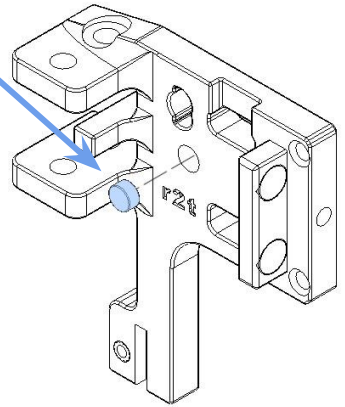






8x5mm n52 magnets

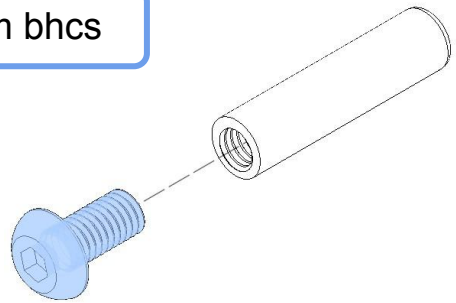
Apply a bit of glue/epoxy before inserting the magnets. Ensure the polarity matches the magnet on the Cowl and Backplate that you install earlier. They should be attracted to each other when the toolhead is on the dock.



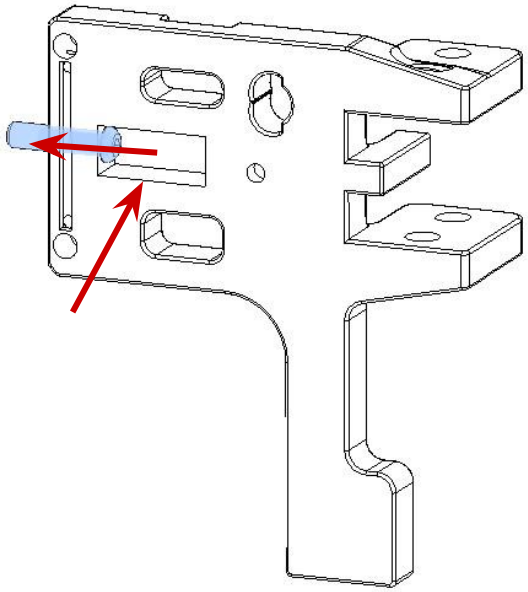
6x3mm n52 magnets

m3 od4 16mm
threaded dowel pin

m3 x 6mm bhcs

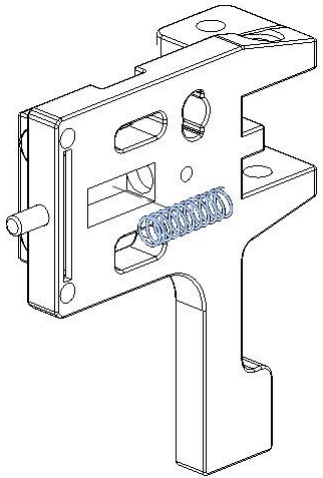


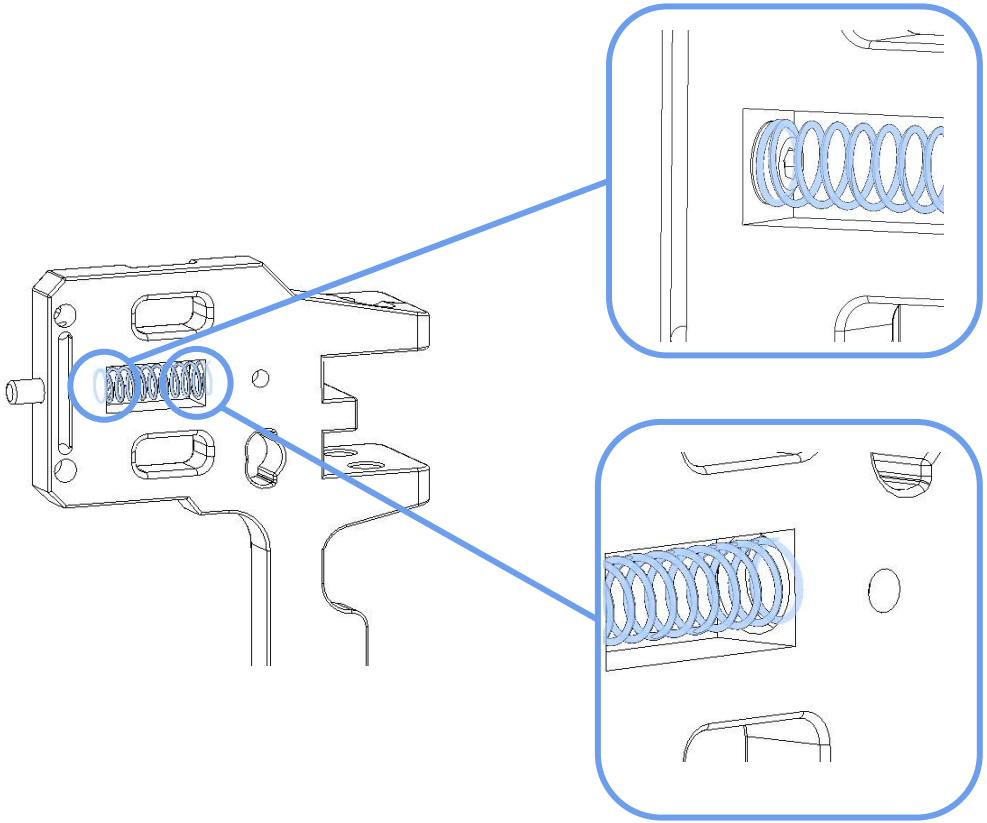
Preparation
Apply Loctite before screwing in fully.



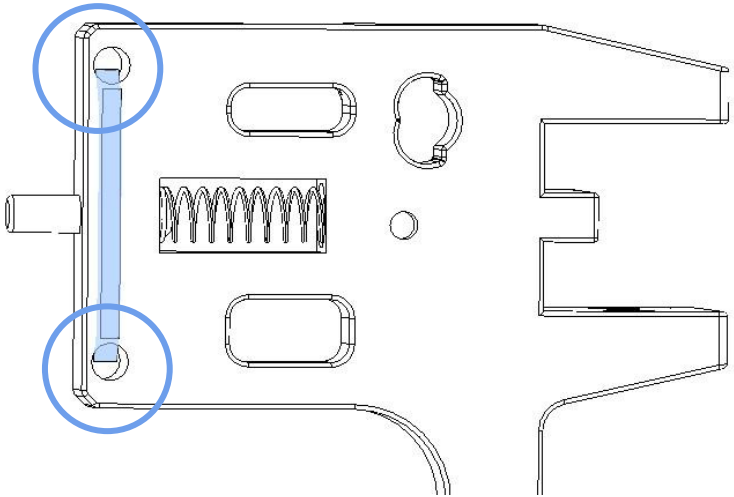
Slide the dowel pin in the slot and push it all the way to the front.

od6 id5 20mm spring

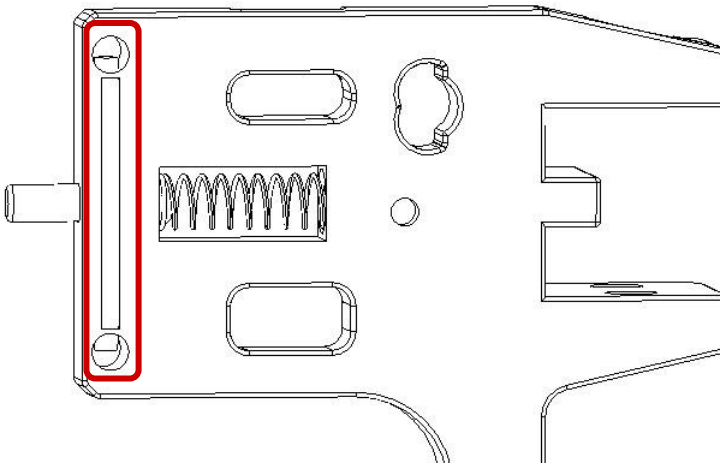




Slide the spring in the slot. Ensure the spring is seated properly on the buttonhead screw and the spring cutout.

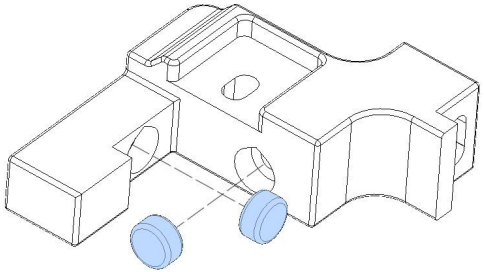


Strip the ends of a wire about 30mm long and thread the exposed ends into the 2 slots on the Dock.
Ensure the exposed ends exit into the dowel slots as they will be forming the connection for the Dock Sense.



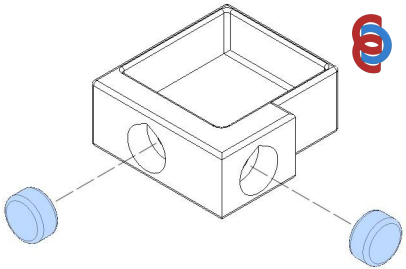
You may tape the wire down to secure it in place.

6x3mm n52 magnets

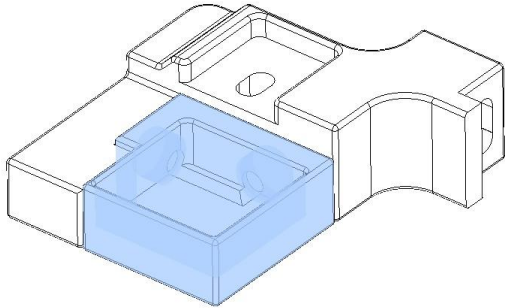


Apply a bit of glue/epoxy before inserting the magnets to the Nozzle Blocker Mount. Ensure they are flushed with the surface.

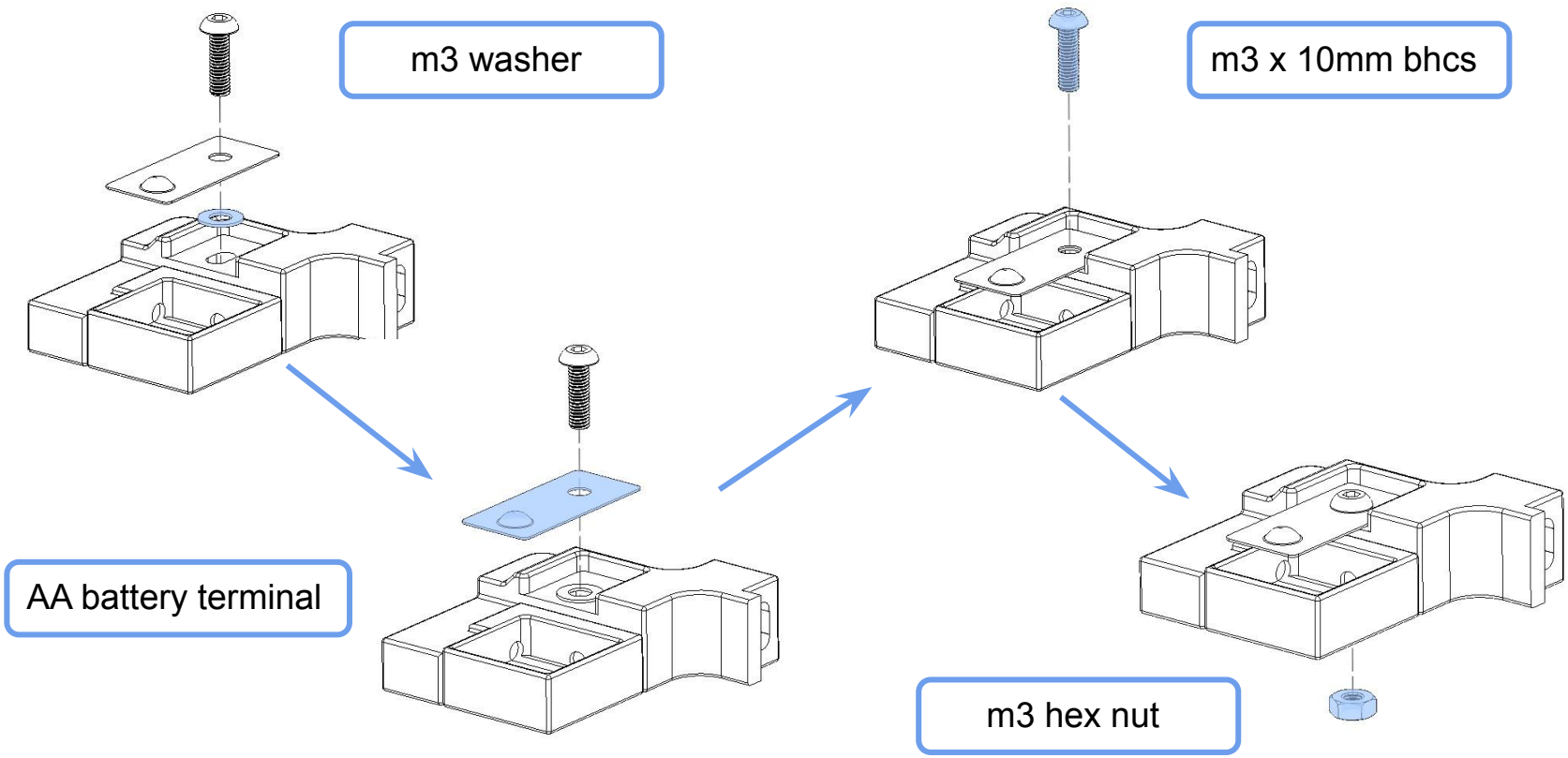
6x3mm n52 magnets

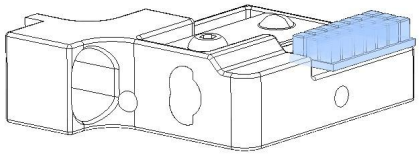


Apply a bit of glue/epoxy before inserting the magnets to the Drip Tray. Ensure the polarity matches the magnet on the Nozzle Blocker Mount that you have just installed. They should be attracted to each other.



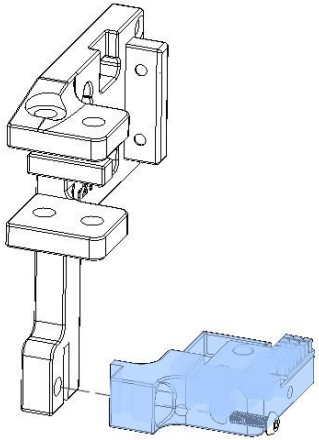
Attach the Drip Tray to the Nozzle Blocker Mount.

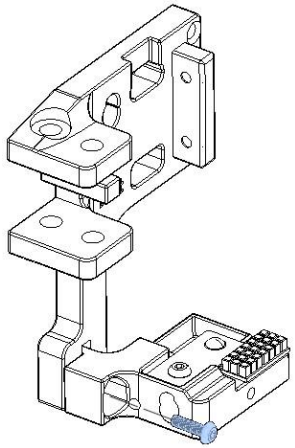

m3 washer
m3 x 10mm bhcs
AA battery terminal
m3 hex nut



Attach the Bambulab Silicone Wiper.

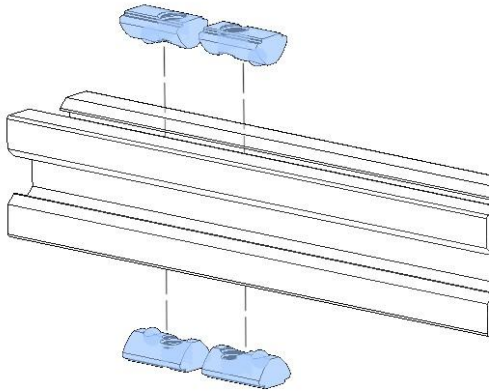
m3 x 10mm bhcs



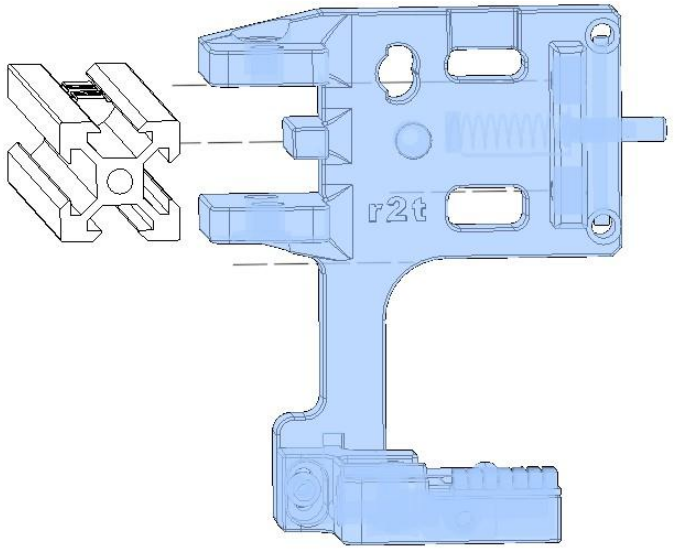


Attach the Nozzle Blocker assembly to the Dock.

m5 t-nut

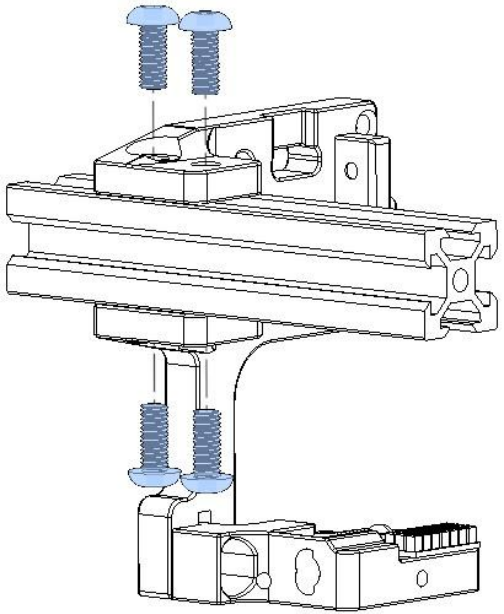


Slide in to both top and bottom of the dock extrusion bar.

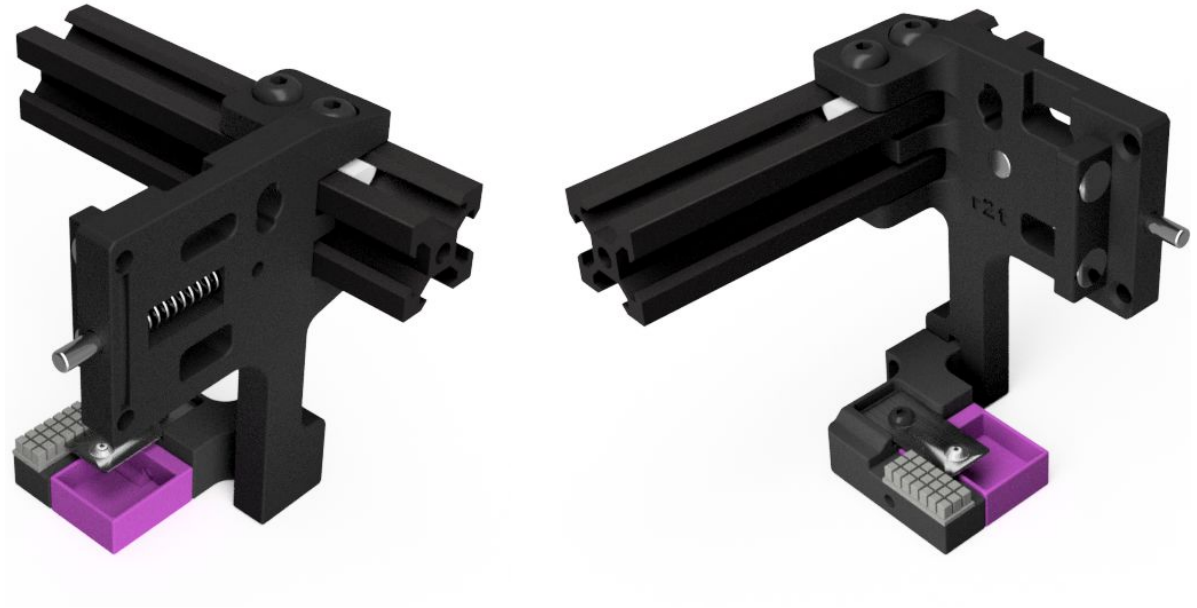


Slide in the complete Dock assembly to the dock extrusion bar.

m5 x 12mm bhcs



Secure the Dock to the dock extrusion bar.



Completed Dock Assembly.

We are humans and are prone to mistakes. If you encounter any issues/faults with the build guide, please raise them on our Discord with the relevant page number or a screenshot of the issues/fault.

This guide may be subjected to changes regularly based on feedbacks from the community.

Do join us on Discord if you need help or have any questions.

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