



# 8. Electronics assembly

Electronics guide

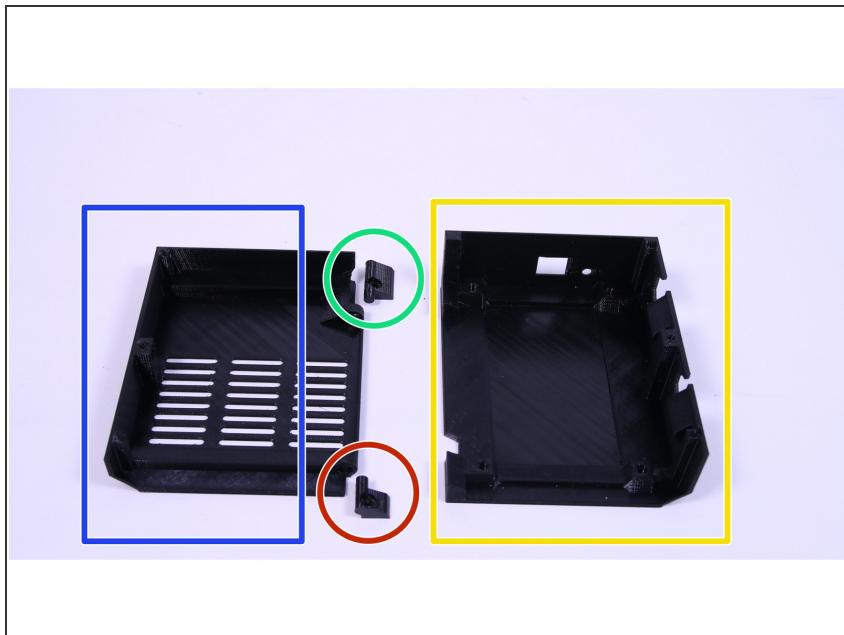
Written By: Josef Prusa

## Step 1 — Getting the necessary tools



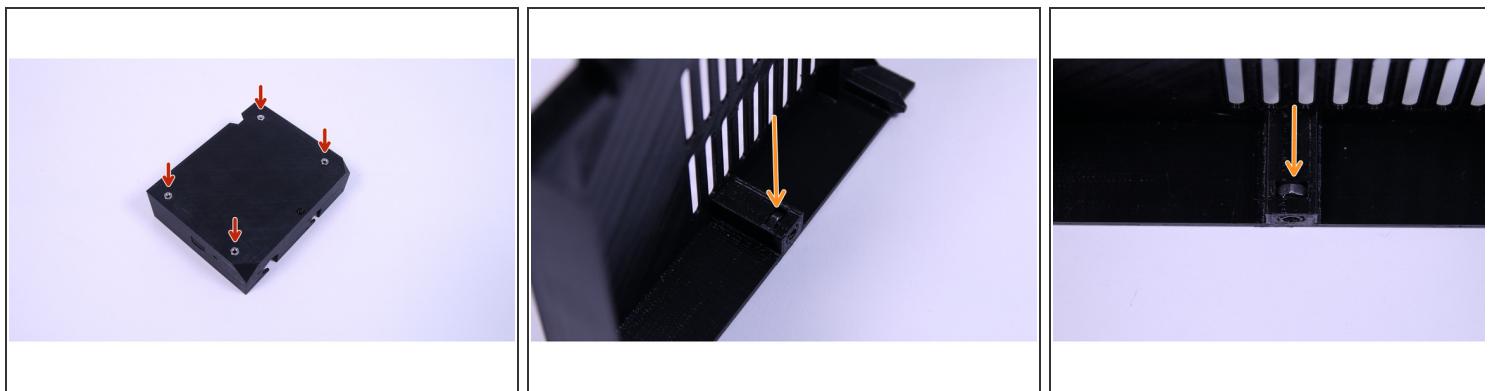
- 2.5mm Allen key
- Needle-nose pliers

## Step 2 — 3D printed parts



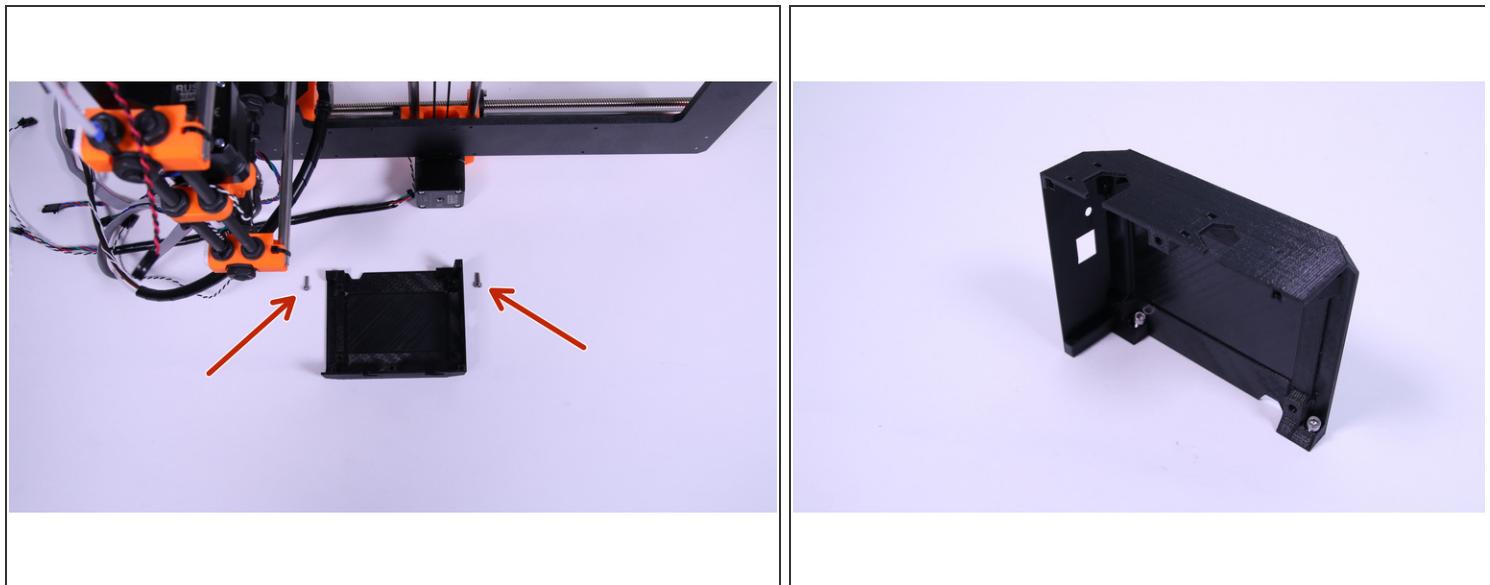
- Rambo-cover-base
  - Rambo-cover-door
  - Rambo-cover-hinge top
  - Rambo-cover-hinge bottom
- (i)* Casing parts can slightly differ from pictures.

### Step 3 — Preparing the Rambo cover base



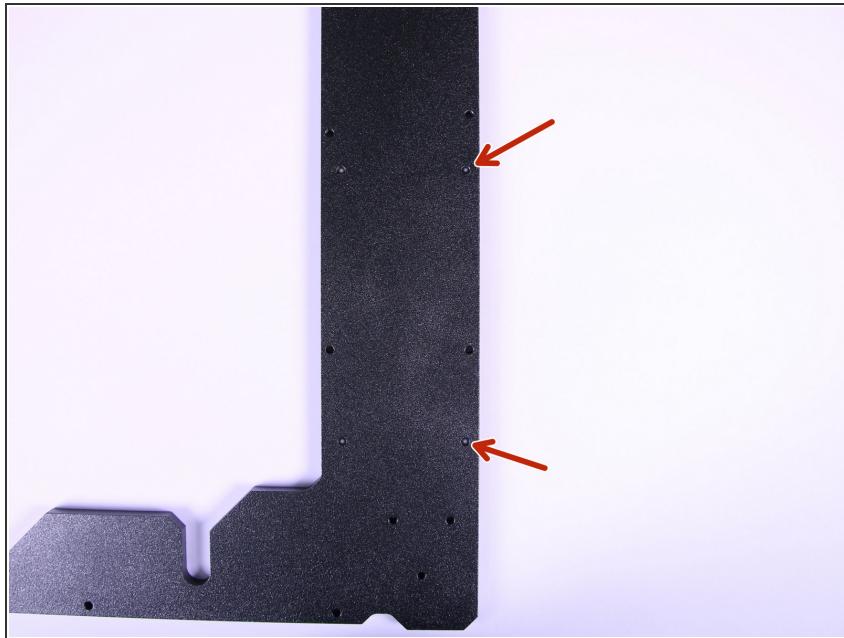
- Insert M3n nuts (4 pcs) in nut traps.
- Insert M3nS (1 pcs)

### Step 4 — Mounting the Rambo cover base on the frame



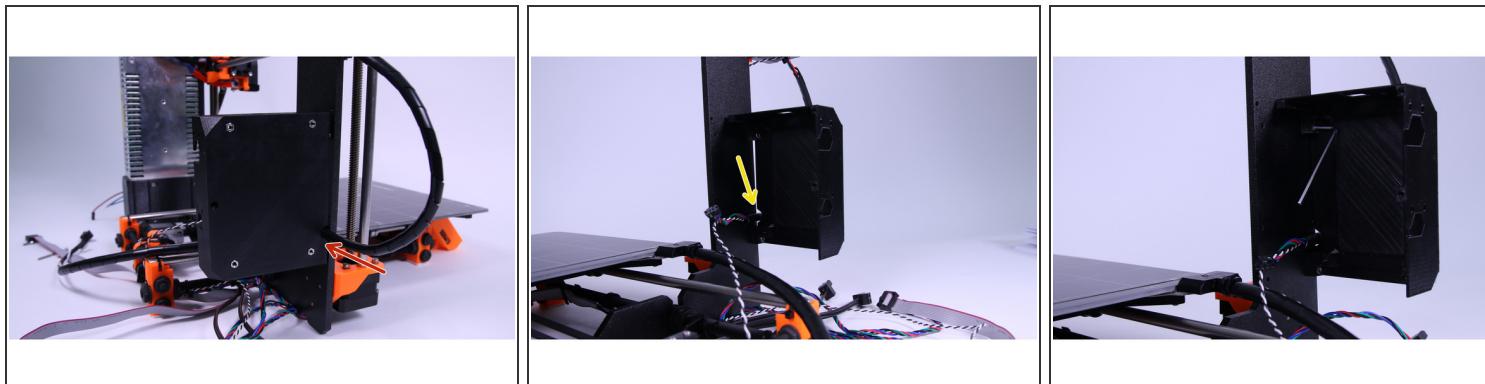
- M3x10 screws (2 pcs)

## Step 5 — Identifying mounting holes



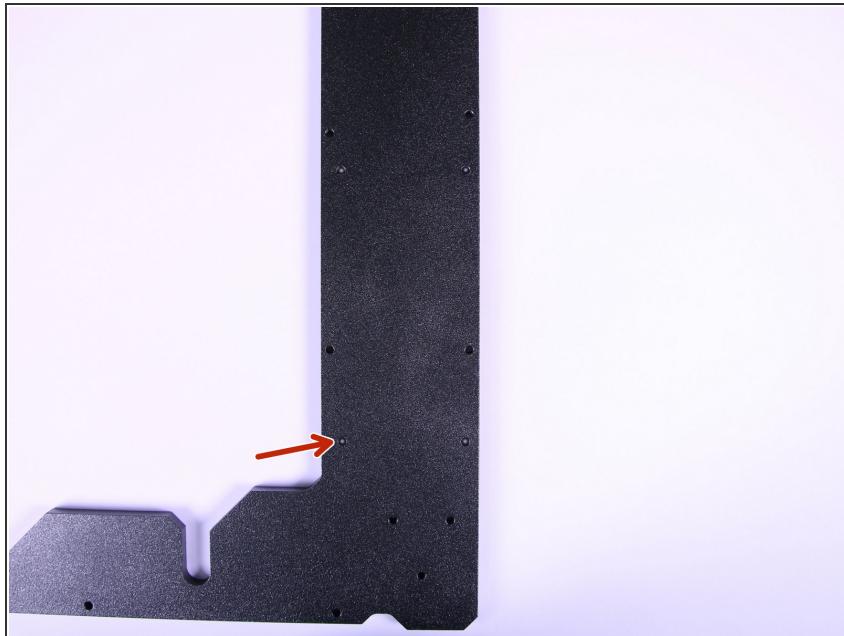
- In the next step, use highlighted holes.

## Step 6 — Finalizing the Rambo cover base



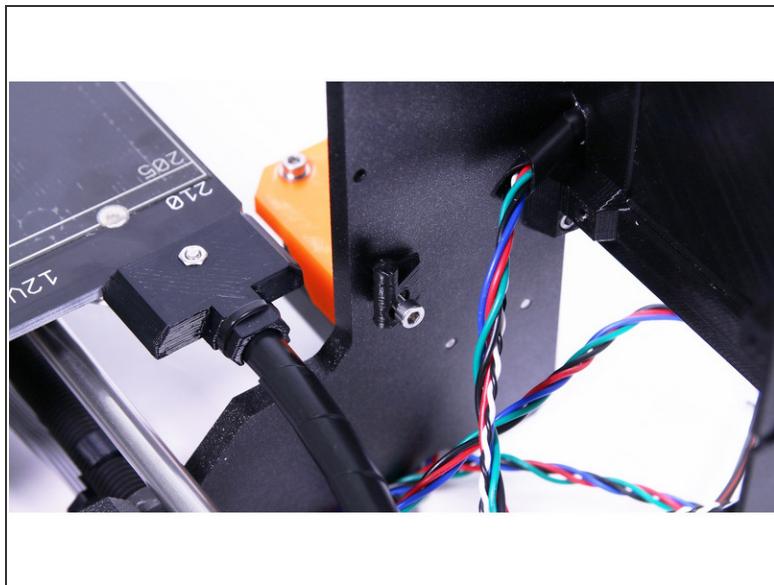
- Slide X-axis cables through the Rambo cover while attaching the Rambo cover base to the frame as shown in the picture.
- The spiral wrap must run into the Rambo cover so it is held in place when tightened up.
- Tighten the Rambo cover base to the frame using supplied 2.5 mm spanner.

## Step 7 — Identifying mount hole



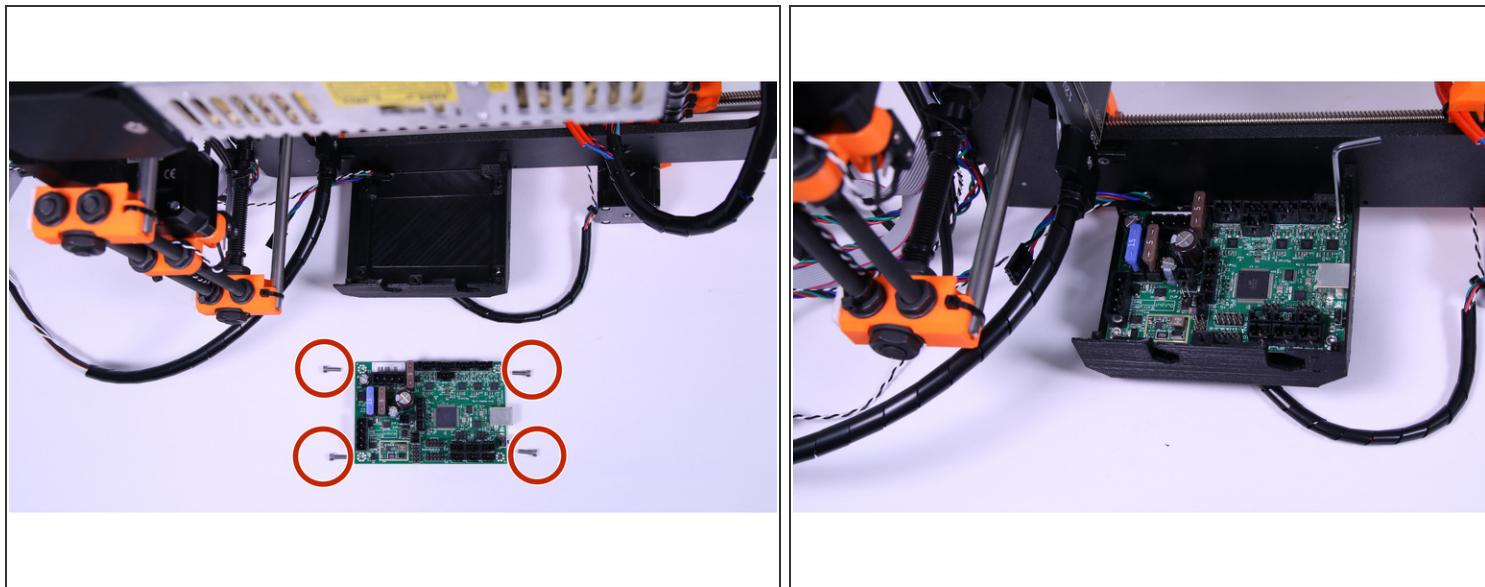
- In the next step use the highlighted hole.

## Step 8 — Mounting Rambo cover hinge bottom



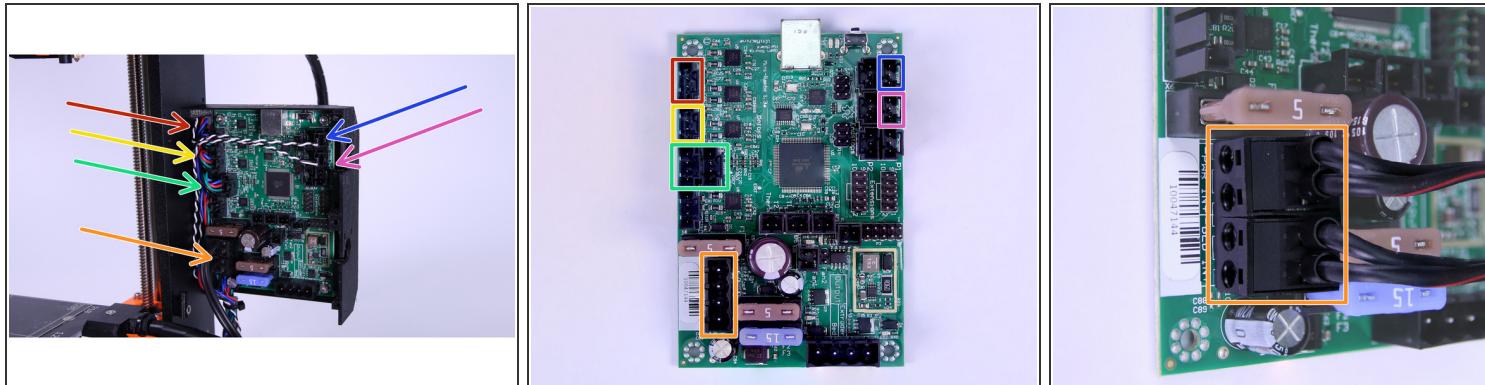
- Tighten Rambo cover hinge bottom to the frame using one M3x10 screw and supplied 2.5 mm Allen key.

## Step 9 — Preparing electronics



- M3x10 screws (4 pcs)
  - Slide the electronics into the Rambo cover base and secure the board in place using M3x10 screws.
- ⚠ Note the correct orientation of electronics and the Rambo cover base.**

## Step 10 — Connecting electronics - part 1

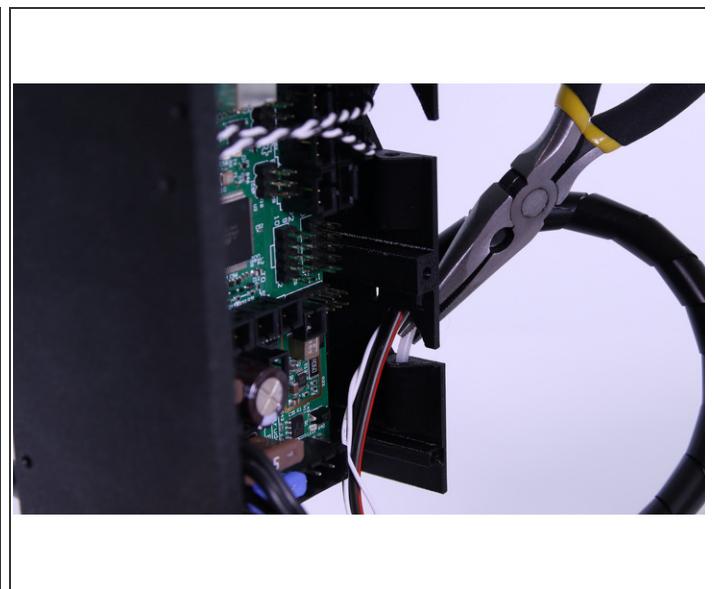
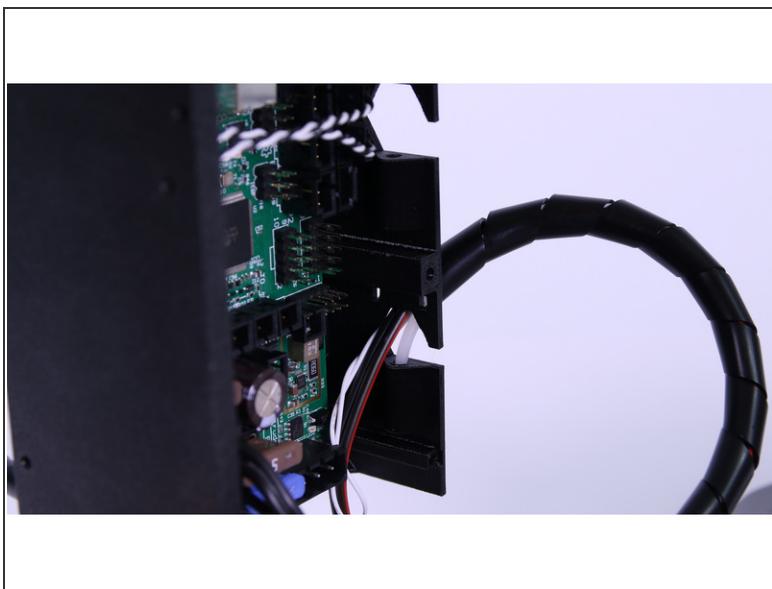


- X-axis motor
- Y-axis motor
- Z-axis motors (the order of Z-motors doesn't matter )
- X-axis endstop
- Y-axis endstop
- Low voltage main cables (wires going out from PSU)

**(i)** All motor cables have their marking for easier assembly.

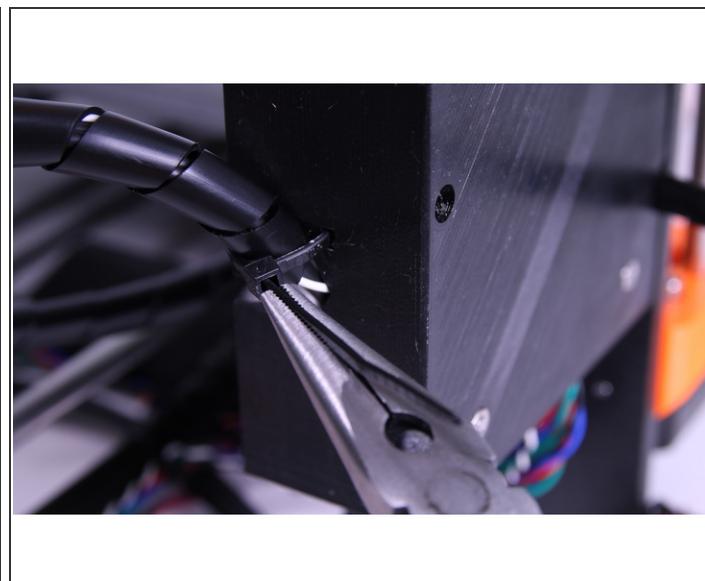
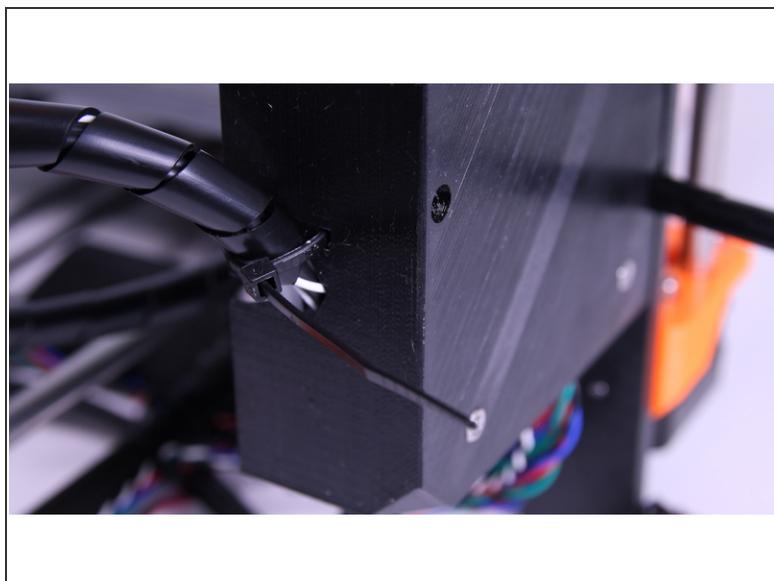
**⚠** Connect cables and arrange cables as shown in the picture. Check all connectors are properly plugged!

## Step 11 — Heatbed and extruder cables guide



- Guide the cables from the heatbed through the bottom hole of the Rambo cover base.
- Push the filament all the way down through the filament holder hole in the Rambo cover base.

## Step 12 — Securing heat bed cables to the Rambo cover base

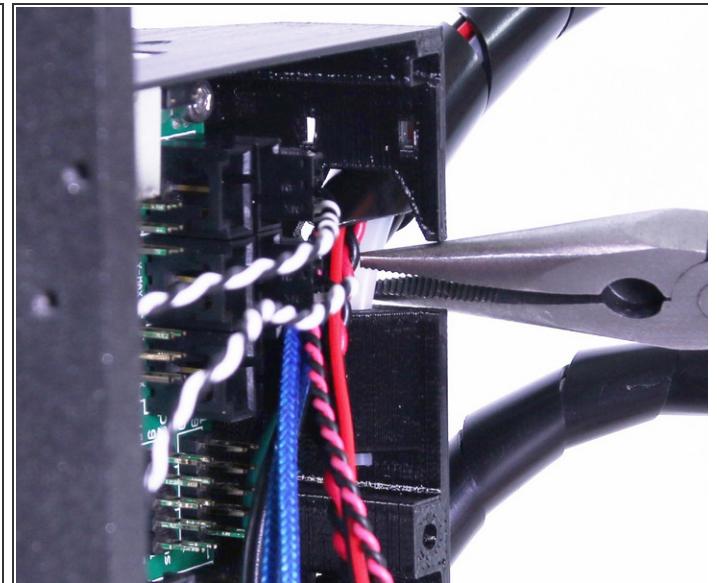
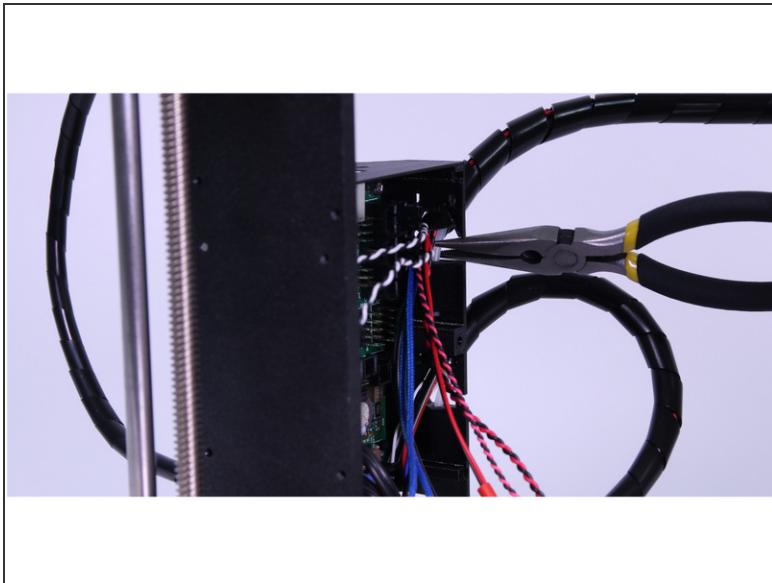


- Using a ziptie, tie the cables from the heatbed to the Rambo cover base at the end of the spiral wrap.

 Ensure the heatbed connector is plugged correctly and all the way in.

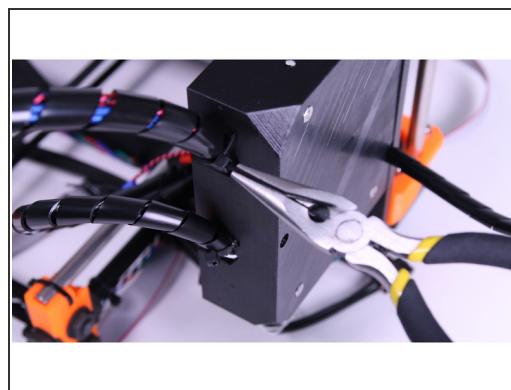
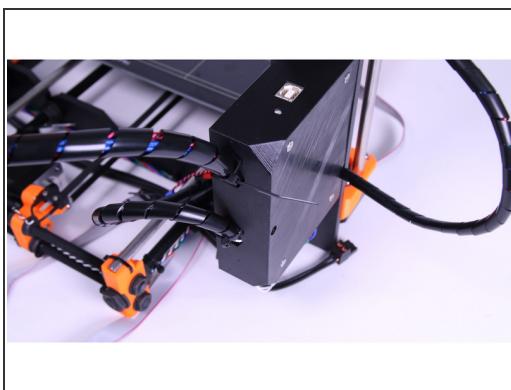
 Double check the zip tie is tied firmly, there is a lot of movement.

## Step 13 — Extruder cables guide



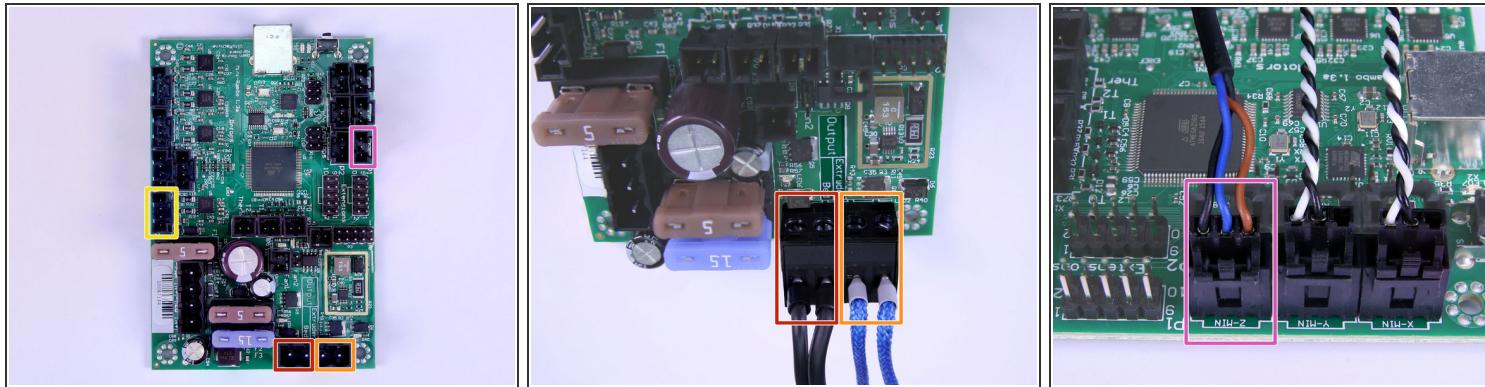
- Guide the cables from the extruder through the upper hole of the Rambo cover base.
- Push the filament all the way down through the filament holder hole in the Rambo cover base.

## Step 14 — Securing extruder cables to the Rambo cover base



- Using a ziptie, tie the cables from the extruder to the Rambo cover base at the end of the spiral wrap.

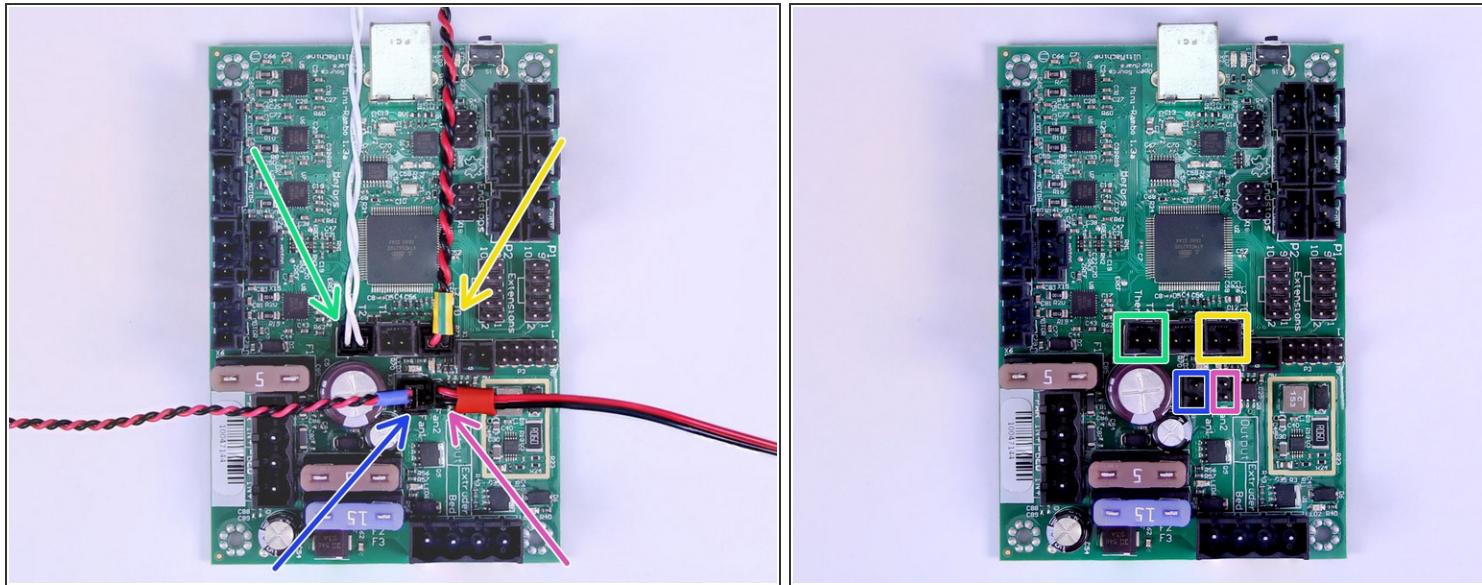
## Step 15 — Connecting electronics - part 2



- P.I.N.D.A. probe
- Extruder motor
- Heatbed heater
- Extruder heater

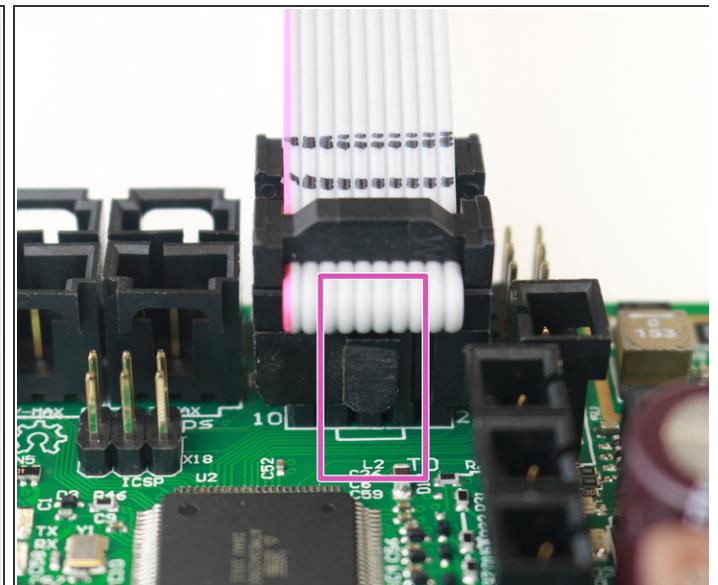
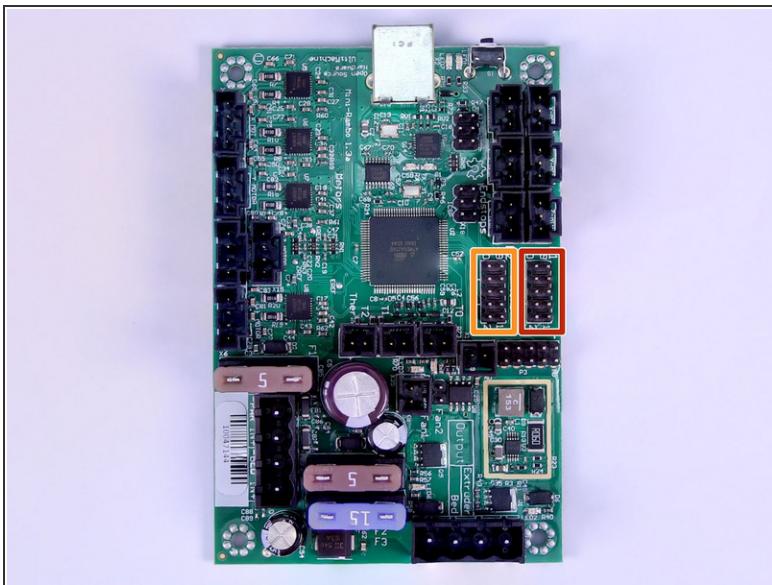
 **DOUBLE CHECK** the connection! It is so important to ensure the correct connections.

## Step 16 — Connecting electronics - part 3



- Extruder thermistor (cable going from the extruder labeled with Yellow/Green heat shrink)  
[Orientation does not matter]
  - Heatbed thermistor (white or black cable going from the heatbed)
  - Print fan (cable going from the extruder labeled with Red heat shrink)[make sure that the red wire is closer to the thermistor]
  - Extruder fan (cable going from the extruder labeled with Blue heat shrink)
- ⚠ DOUBLE CHECK the connection! It is important to ensure the correct connections!**

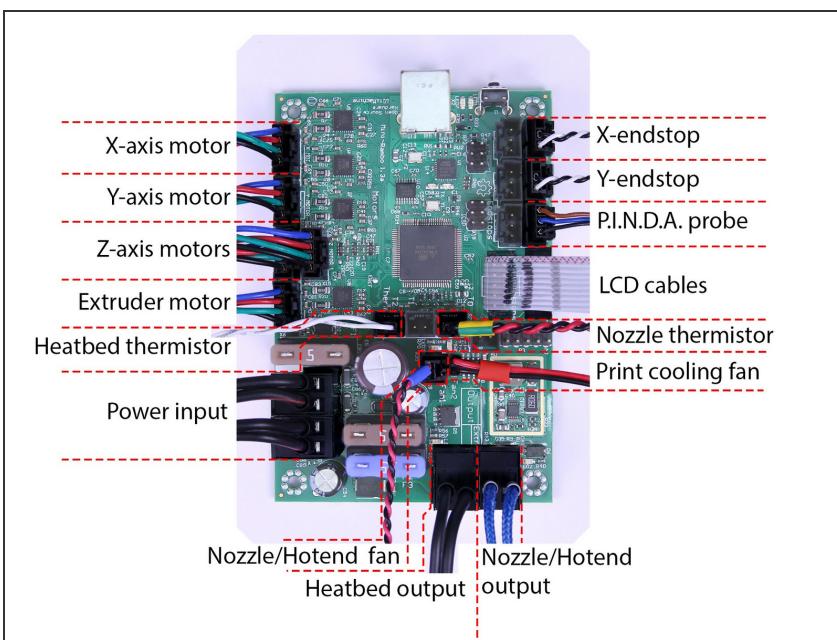
## Step 17 — Connecting electronics - part 4



- LCD cable with ONE stripe (Connector P1)
- LCD cable with TWO stripes (Connector P2)

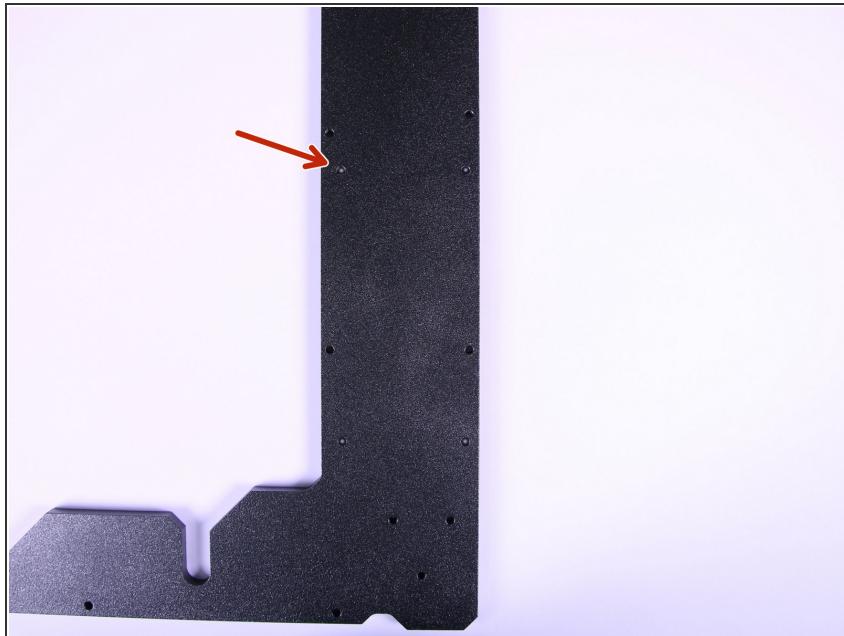
 Make sure that the key of connector is matching the key on the electronics.

## Step 18 — Verify electronics connection



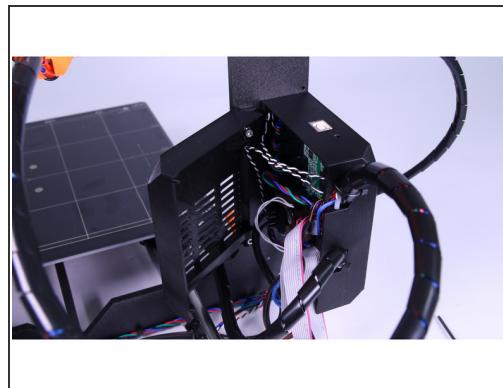
- Check your electronics connection with the attached picture.

## Step 19 — Identifying mounting hole



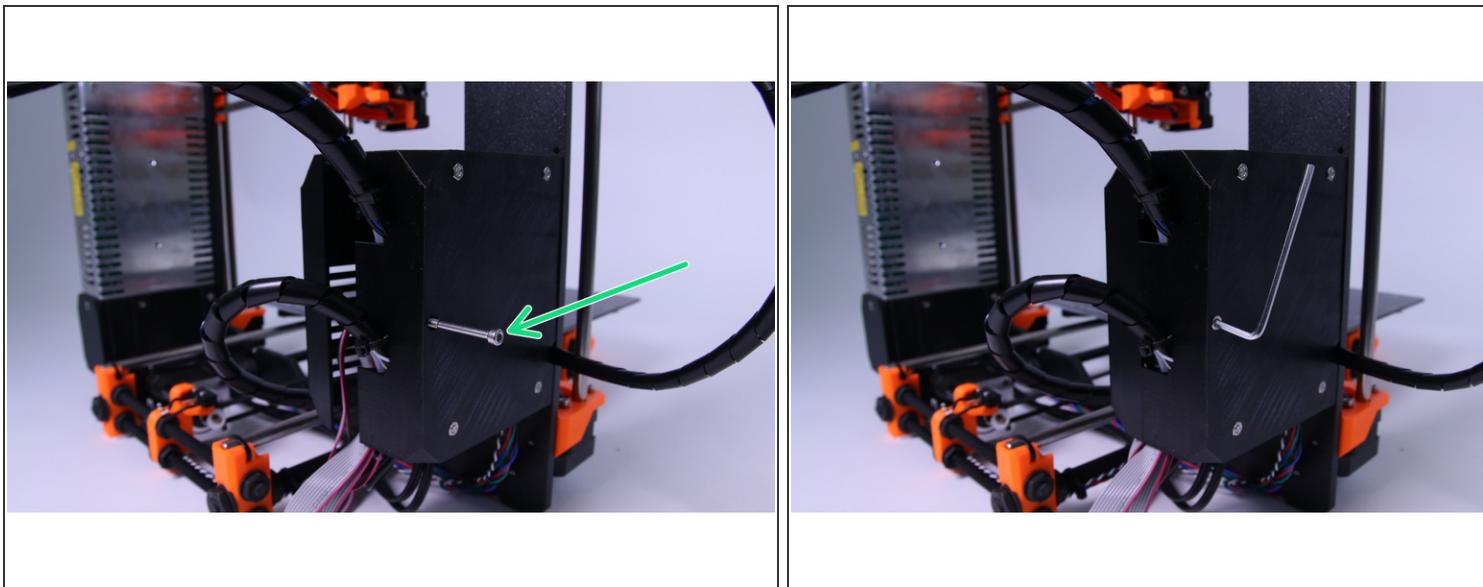
- In the next step use the highlighted hole.

## Step 20 — Preparing Rambo cover upper hinge



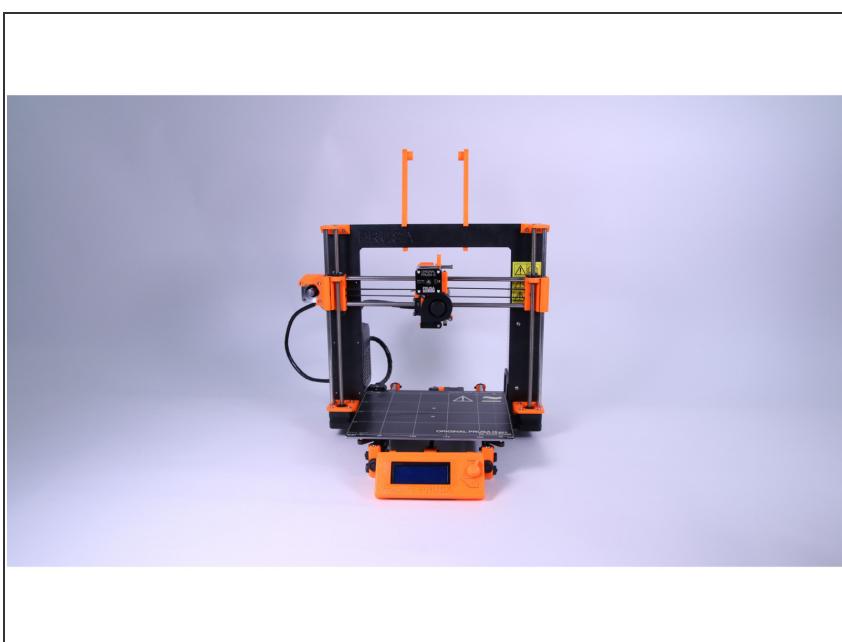
- M3x10 screw (1 pcs)
  - Rambo-cover upper hinge
- Insert M3x10 screw into the hinge.
- (i)** Move the heatbed all the way towards the LCD for easier access.
- Assemble the Rambo-cover doors on the lower hinge attached to the frame and slide the upper hinge in place.
- Secure the upper hinge to the frame.

## Step 21 — Finalizing Rambo cover



- M3x40 screw (1 pcs)
  - Close the Rambo-cover doors
- ⚠** Make sure that no wire is pinched!
- Tighten M3x40 screw.

## Step 22 — Hooray!



- Congratulations, you've just assembled the whole Original Prusa i3 MK2 3D printer!
- You're almost there... Just finish the chapter [9. Preflight check](#)

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