

Table of Contents

How to replace Heatbed Thermistor (CORE

One)	3
Step 1 - Introduction	4
Step 2 - Tools Required	5
Step 3 - Printer Preparation 1	5
Step 4 - Printer Preparation 2	6
Step 5 - Side Cover Removal	6
Step 6 - Side Panel Removal	7
Step 7 - Back Cover Removal 1	7
Step 8 - Back Cover Removal 2	8
Step 9 - xBuddy Cover Removal	8
Step 10 - Cable Unmounting	9
Step 11 - Cable Disconnection	10
Step 12 - Cable Removal	10
Step 13 - Cable Uncovering	11
Step 14 - Cable bundle Separation	11
Step 15 - Heatbed Removal	12
Step 16 - Heatbed Disassembly	13
Step 17 - Heatbed Prep	13
Step 18 - Thermistor: parts preparation	14
Step 19 - Thermistor Installation	15
Step 20 - Thermistor Installation 2	16
Step 21 - Thermistor Installation 3	16
Step 22 - Heatbed Parts Preparation	17
Step 23 - Heatbed Cable Assembly 1	17
Step 24 - Heatbed Cable Assembly 2	18
Step 25 - Cable Cover Attachment	19
Step 26 - Expansion Joint Inspection	19
Step 27 - Heatbed Attachment 1	20
Step 28 - Heatbed Attachment 2	21
Step 29 - Cable Guidance	22
Step 30 - Cable Covering	22
Step 31 - Cable Guidance 2	23
Step 32 - Cable Mounting	23
Step 33 - Cable Guidance 3	24

Step 34 - Cable Connection	24
Step 35 - Zip-Tie Installation	25
Step 36 - Power Cable Connection	26
Step 37 - xBuddy Cover Installation	27
Step 38 - Rear Cover Installation	27
Step 39 - Side Cover Installation	28
Step 40 - Final Preparation	28
Step 41 - Selftest	29

How to replace Heatbed Thermistor (CORE One)



help.prusa3d.com/g307143

Scan the QR code to
display the latest
version of this
chapter.

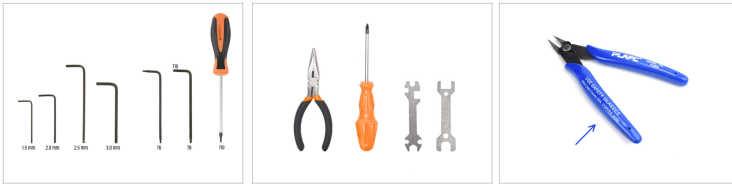


STEP 1 Introduction



- This guide will take you through the **Heatbed thermistor replacement** on your **Prusa CORE One**.
 - All necessary parts are available in our eshop prusa3d.com.
-  Note that you have to be logged in to have access to the spare parts section.

STEP 2 Tools Required



● Please prepare tools for this guide:

- 2mm Allen key
- 2.5mm Allen key
- T10 Torx key / screwdriver
- Needle-nose pliers
- Phillips Screwdriver
- Flush cutters are recommended as an optional tool.

STEP 3 Printer Preparation 1



- On the printer screen, visit the menu **Control** and trigger the **Auto Home**.
- Go to *Control -> Move Axis -> Move Z* and enter a value around 200mm
- The goal is to move the heatbed low enough so that it's easily reachable from top, while still leaving some room below.

STEP 4 Printer Preparation 2



- Turn the printer off using the switch on the back.
- Disconnect the printer from power.
- Remove the steel sheet, in case it's still in place.

STEP 5 Side Cover Removal



- Remove the five Nylon rivets holding the plastic side cover.
- We recommend using flush cutters to gently lift the top part of the rivet, unlocking it. Then, remove the bottom part of the rivet.
- Remove the plastic side cover.

STEP 6 Side Panel Removal



- Remove the marked Nylon rivets holding the Side Sheet Metal Panel.
- Remove the panel.

STEP 7 Back Cover Removal 1



- On the inside of the printer, remove the two screws holding the back cover.
- On the back of the printer, slide the center cover downwards.
 - If it's difficult to move, use a screwdriver as a lever through the opening to assist.
- Ensure the four hooks on top of the cover are disengaged from the metal chassis.

STEP 8 Back Cover Removal 2



- ✦ Move the cover slightly towards the back.
- ✦ Pull the bottom part of the cover outward while tilting the top toward the printer. This will unhook it from the cable bundle behind.

STEP 9 xBuddy Cover Removal



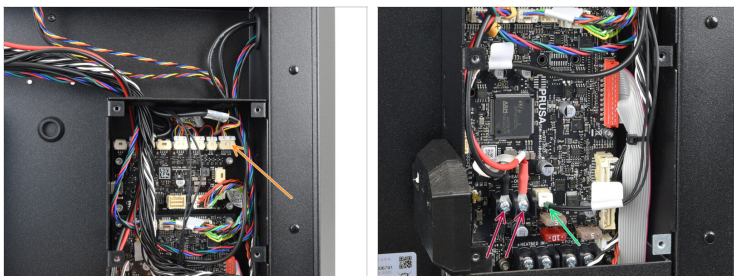
- ✦ Remove the six screws holding the xBuddy cover.
- ✦ Remove the cover by sliding it out.

STEP 10 Cable Unmounting



- ❖ Carefully cut the zip-tie holding the heatbed cable bundle.
- ❖ Remove the rest of the zip-tie on the back of the printer.
- ❖ Carefully remove all the zip-ties holding the cables from the heatbed assembly (the heatbed power, thermistor and RGBW LED cables).

STEP 11 Cable Disconnection



- Disconnect the **RGBW LED Cable** from the right top corner of the xBuddy Extension board.

 **Note that there is a safety latch on the connector, which must be pressed in order to remove the plug.**

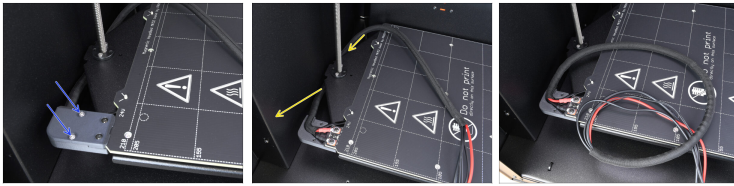
- Disconnect the **heatbed thermistor** from the xBuddy board.
- Using the Phillips screwdriver, undo the two terminal screws and disconnect the **heatbed power cables**.

STEP 12 Cable Removal



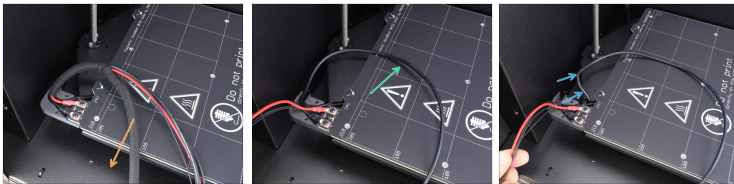
- Remove the heatbed cable bundle from the xBuddy box.
- Guide the cable bundle through the opening, to the inside of the printer.

STEP 13 Cable Uncovering



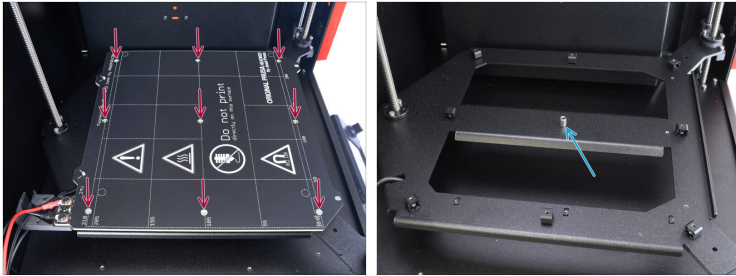
- Remove the two M3x10 screws holding the cable cover. Then, remove the cover.
- Guide the cable bundle out, from behind the heatbed assembly

STEP 14 Cable bundle Separation



- Remove the textile sleeve from the cable bundle.
- Separate the RGBW LED cable from the bundle.
 - Release it from the bottom of the cable cover, and set it aside.

STEP 15 Heatbed Removal



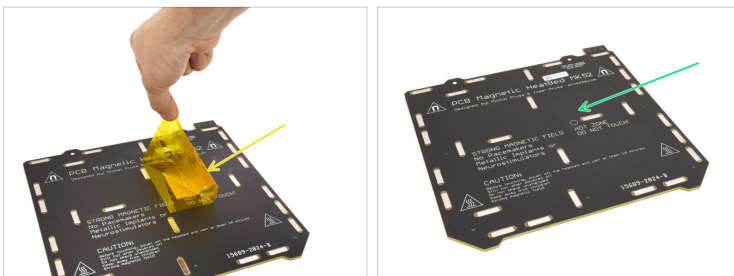
- ❖ Remove all 9 screws holding the heatbed in place. Then, remove the heatbed.
- ❖ In the center of the heatbed carriage, there should be a metal spacer standing freely. It might have fallen off, while removing the heatbed. In that case, search below the carriage. **Save the spacer for later use.**

STEP 16 Heatbed Disassembly



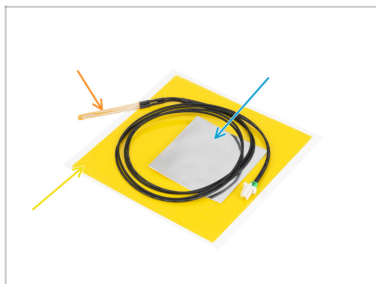
- ✦ On the heatbed assembly, remove the screw holding the bottom of the cable cover to the heatbed.
- ✦ Remove the two screws holding the power connectors, while holding the nuts underneath using the Unikey.
- ✦ Set the old heatbed aside, as we are going to replace it with the new one.

STEP 17 Heatbed Prep



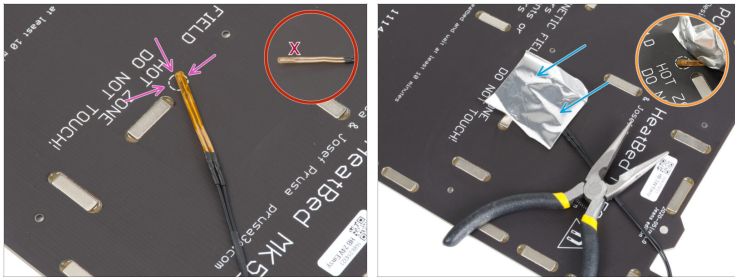
- ✦ Remove both the Kapton and aluminum stickers on the underneath and detach the old thermistor.
- ✦ Clean up any leftover adhesive from the bottom of the heatbed, to prepare it for a new thermistor installation.

STEP 18 Thermistor: parts preparation



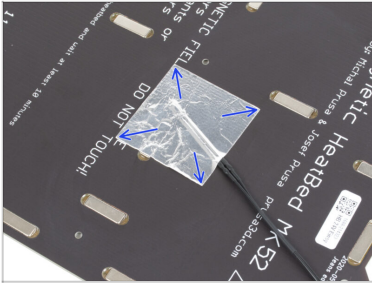
- **For the following steps, please prepare:**
- CORE One Heated thermistor (1x)
 - ① This thermistor has a longer cable compared to the MK4/S version.
- Kapton tape (1x)
- Aluminum tape (1x)

STEP 19 Thermistor Installation



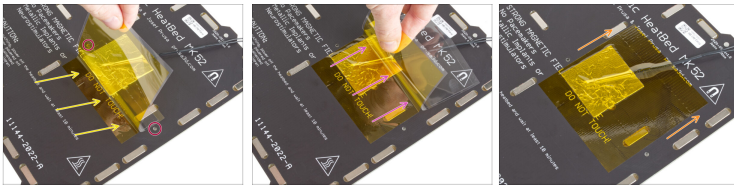
- ✿ Place the thermistor onto the heatbed, ensuring the tip is positioned inside the circle.
- ⚠ Important: If the thermistor is misaligned, the printer will read incorrect temperature values.
- ⚠ Also, note which side the sensor is attached to on the heatbed.
- 🔵 Use the aluminum tape to fix the thermistor in place.
- 📌 The thermistor cable should be directed toward the power connector area.
- 🟠 Keep the tip of the thermistor in the circled area, while applying the tape.

STEP 20 Thermistor Installation 2



- Smooth out the aluminum tape around the thermistor using your fingers only, to ensure it is fully adhered.

STEP 21 Thermistor Installation 3



-  Now, it is time to apply the final yellow Kapton tape.

DO NOT peel off the entire tape at once—it will curl up!

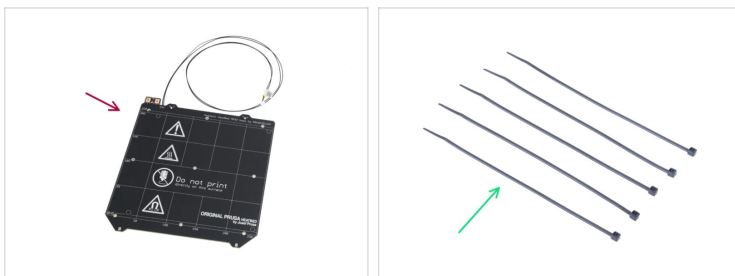
-  Peel off about 1 cm (1/2 inch) strip of the Kapton tape and stick it to the heatbed.

-  Start applying the tape so that it overlaps the aluminum foil entirely, while making sure it **does not obstruct any screw holes in the heatbed.**

-  Continue applying the tape gradually, ensuring it does not curl too much.

-  Finally, Check that the entire surface has adhered properly.

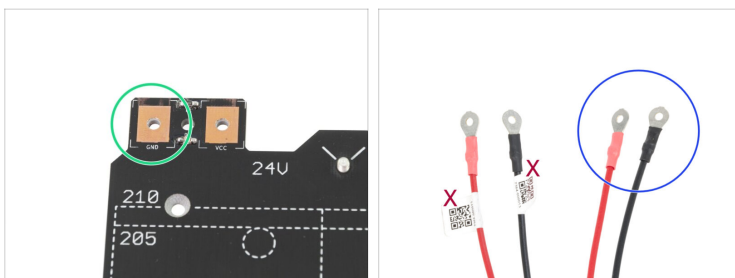
STEP 22 Heatbed Parts Preparation



For the following steps, prepare:

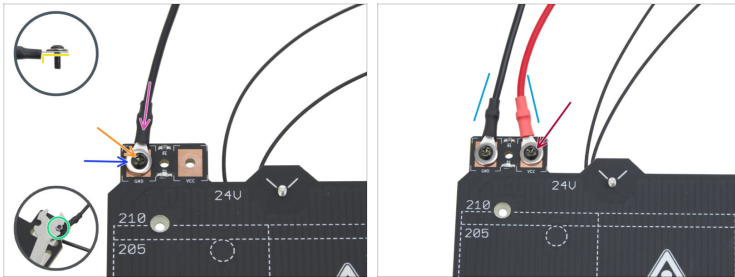
- Heatbed with the new thermistor (1x)
- Zip-tie (5x)

STEP 23 Heatbed Cable Assembly 1



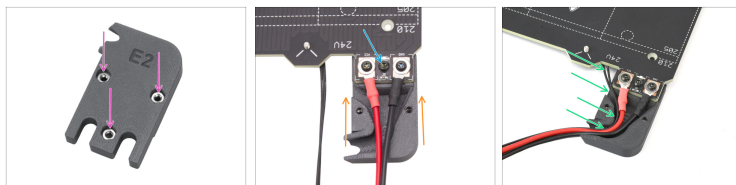
- Follow the polarity markings on the heatbed: The pad labeled **GND** should be coupled with the **BLACK WIRE**.
- Take both heatbed power cables. Note the labels on each. Use the unlabeled ends for the heatbed connection.

STEP 24 Heatbed Cable Assembly 2



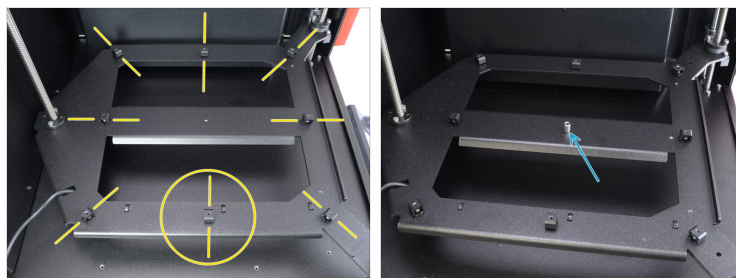
- ✿ Place the black cable onto the "GND" pad.
 - ✿ Orient the lug connector with the thicker part facing downward.
- ✿ Place the M3w washer on top of the connector.
- ✿ Insert the M3x10rT screw through all the components.
- ✿ Screw the M3nN nut onto the M3x10rT screw from below and tighten it gently.
- ✿ Using the same technique, attach the red cable to the "VCC" pad.
- ✿ Guide the heatbed cables slightly inward in a "V" shape, **then fully tighten the nuts from below.**

STEP 25 Cable Cover Attachment



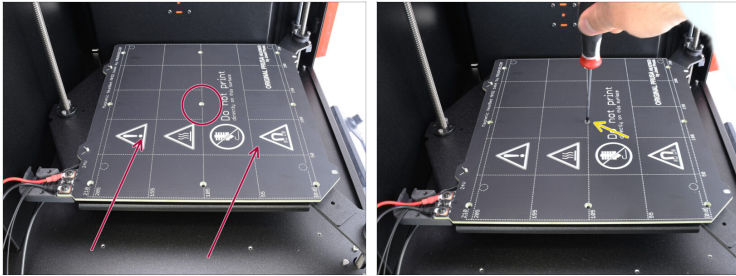
- Verify the three M3n nuts are held securely in the bottom cable cover part.
- Slide the cover under the cable joint on the heatbed.
- Fix the cover bottom in place using the M3x10rT screw.
- Add the heatbed thermistor cable into the groove in the bottom cable cover.

STEP 26 Expansion Joint Inspection



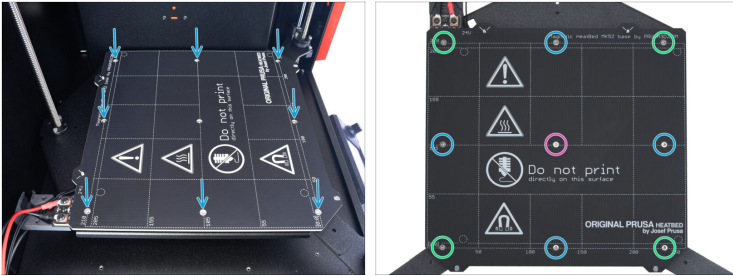
- On the inside of the printer, inspect the expansion joints on the heatbed carriage. **They must all be oriented towards the center** and tightened securely.
- Place the heatbed spacer onto the center threaded opening. Align it precisely with the opening.

STEP 27 Heatbed Attachment 1



- Place the heatbed onto the carriage. Make sure the center spacer is still in place under the heatbed. Align the center opening in the heatbed with the spacer.
- Fix the heatbed to the carriage using the M3x14bT screw. Tighten it just lightly for now. **Do not tighten it fully yet!**

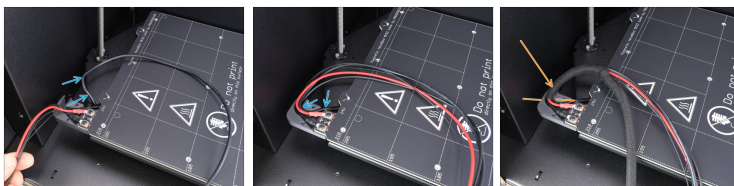
STEP 28 Heatbed Attachment 2



- Fix the heatbed in place using the M3x4bT screws around the perimeter, tighten them just lightly for now.
- After all screws are in place, fully tighten them in the following sequence:
 - Center screw
 - First four screws (edges)
 - Last four screws (corners)

⚠ **Tighten the screws gently, but firmly.**

STEP 29 Cable Guidance

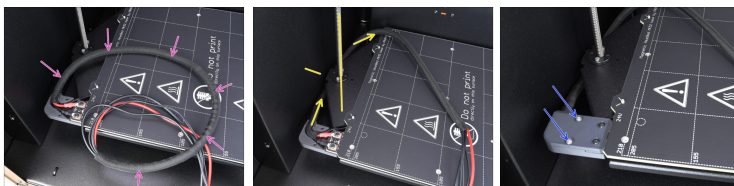


- Route the RGBW LED cable from the heatbed carriage into the groove in the cover. Guide it along the rest of the heatbed cables.
- Take the textile wrap and start wrapping the cable bundle. Note that the start of the textile wrap should be above the bottom cable cover.



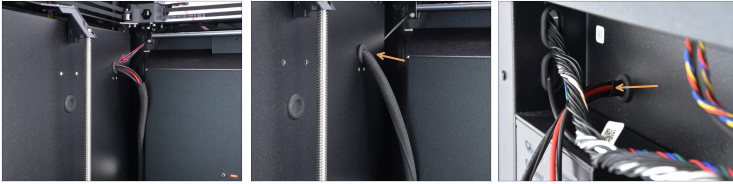
Note that the start of the textile wrap should be above the bottom cable cover.

STEP 30 Cable Covering



- Wrap the whole bundle with the textile sleeve.
- Guide the cable bundle below the heatbed carriage and behind the trapezoid rod.
-  Verify the cable bundle is guided as specified; otherwise, it might interfere with the components later on.
- Add the top part of the cable cover and fix it in place using two M3x10 screws.

STEP 31 Cable Guidance 2



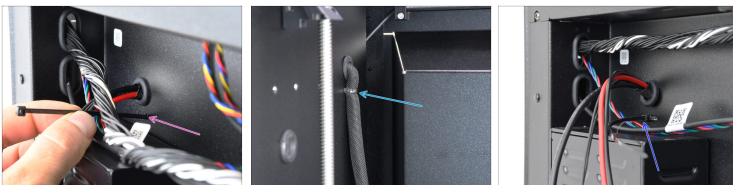
- Push the cables one by one through the opening on the rear of the printer.



Make sure the rubber grommet stays in place.

- Push the cable until the textile sleeve reaches the opening. Leave just the tip of the textile sleeve pushed through.

STEP 32 Cable Mounting



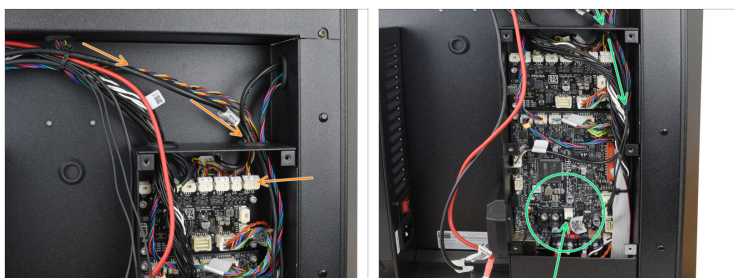
- From the back of the printer, insert the tip of a zip-tie through the opening just below the cable bundle.
- Wrap the zip-tie around the bundle and guide it back through the neighboring opening.
- Tighten the zip-tie securely to hold the cables in place, then trim off the excess length.

STEP 33 Cable Guidance 3



- Guide cables along the rest of the cable bundle, towards the electronics.
- Fix the whole cable bundle in place using a zip-tie. Pull the bundle upwards, as high as possible, to make space for the rear sheet metal cover, later on.
- Guide the **RGBW LED** and the **heatbed thermistor** cables through the right opening, to the inside of the xBuddy box.

STEP 34 Cable Connection



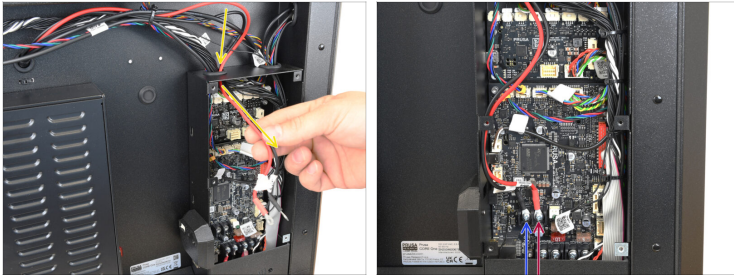
- Connect the RGBW LED Cable to the connector all the way on the right of the xBuddy Extension board.
- Connect the Heatbed Thermistor cable into the dedicated connector on the xBuddy board.

STEP 35 Zip-Tie Installation



- ✦ Install a zip-tie into the hook on the right inner side of the xBuddy box. Guide the zip-tie behind the cables, just above the electronics boards.
- ✦ Using this technique, prepare three zip-ties on the inside of the box.
- ✦ Tuck the cables on the right side of the box towards the side. Then, fix them in place using the zip-ties.
- ⓘ Tighten the zip-ties just around the cables on the right side of the box. You can leave the power cables and the other cables on the left, hanging freely.
- ⚠ Gently tighten the zip ties, just until snug. Tightening them fully is not necessary. Cut the excess part of the zip-ties. Proceed extremely carefully to prevent any damage to the cables!!

STEP 36 Power Cable Connection



- Guide the heatbed power cables through the left opening, to the inside of the xBuddy box.
- Using the 6-32 terminal screw, connect the **black power cable** to the left terminal on the xBuddy board. Tighten firmly.
- Using the 6-32 terminal screw, connect the **red power cable** to the right terminal. Tighten firmly.
- ⚠ **Ensure the power cables are properly connected and firmly secured. Loose or incorrect connections can lead to printer malfunction or pose a serious fire hazard.**

STEP 37 xBuddy Cover Installation



- Reinstall the xBuddy box cover and fix it in place using the six M3x4bT screws. Make sure none of the cables is getting pinched behind the cover!

STEP 38 Rear Cover Installation



- Reinstall the rear sheet metal cover onto the printer.
Make sure none of the cables is getting pinched behind it.
- Push the cover upwards until the four metal tabs engage into the slots on the rear part of the printer.
- While pushing the cover on the back upwards, reach to the inside of the printer and fix the cover in place using the two M3x4bT screws.

STEP 39 Side Cover Installation



- Add the side sheet metal panel to the printer and align it with the opening.
- Secure the panel in place with 11 Nylon rivets in the marked spots.
- Add the plastic cover onto the top part and align it with the opening.
- Fix it in place using 5 Nylon rivets.

STEP 40 Final Preparation



- Connect the printer to power.
- Turn the printer on using the switch on the back.
- Install the steel sheet.

STEP 41 Selftest



- Visit the menu **Control > Calibrations & Tests** and run the Selftest.
- 📌 To save time, you may start from the **Z Alignment Calibration** item.
- Follow the on-screen instructions. The important section starts with the Heatbed Heater check.
- ① If all tests complete successfully, your printer is ready for use and you may continue printing as normal.

Notes:

[illegible]

[illegible]

Notes:

[illegible]

Notes:

[illegible]