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How to replace the heatbed (CORE One L)

help.prusa3d.com/g1034559

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STEP 1 Introduction

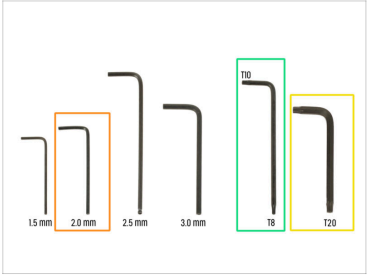
- This guide will take you through the **heatbed replacement** on your **Prusa CORE One L**.

⚠ **This replacement should only be performed by a qualified electrician to avoid the risk of injury or damage.**

- 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 necessary for this guide



- **Please prepare tools for this guide:**
  - 2.5mm Allen key
  - T10 key
  - T20 key
  - Flush cutters

STEP 3 Preparing the printer

- Open the menu ***Control -> Move Axis -> Move Z*** to move the heatbed.

  Tip: Press and hold the knob for one second, then let go. This will guide you directly to the Move Z control screen.

- Using the rotary knob, move the heatbed into approximately the same position as shown in the photo.
- Position the heatbed below the highlighted screws in the back panel to keep them accessible for later steps.
- On the rear side of the printer, flip the power switch OFF (symbol "O").
- **Unplug the power cable.**

Once the power cable is unplugged, flip the power switch ON (symbol "I") to get rid of any electricity left over in the AC box circuits. After 3 seconds, flip the switch OFF again.

STEP 4 Manually adjusting the heatbed



This step serves to inform you that you can adjust the heatbed position at any point during this guide when the printer is not powered.

- Slowly turn both front threaded rods at the same time by a few turns in the same direction.
- Once the front of the heatbed is adjusted, rotate the rear threaded rod in the same direction by a few turns.

Only turn the threaded rods by a few turns. The heatbed must be as level as possible when adjusting its height this way.

- Repeat the process until the heatbed is in the optimal position, as shown in the picture.
- Ensure that the heatbed is positioned below the highlighted screws in the back panel. These have to be accessible for later steps.

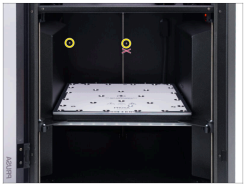
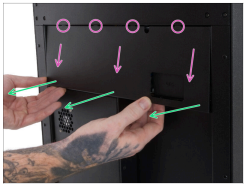
STEP 5 Removing the Wi-Fi module



- Locate the Wi-Fi module at the rear of the printer.
- Use the 2.5 mm Allen key to remove the M3x14 screw.
- Note that the Wi-Fi module is connected to the electronics by the pin header with eight pins.

  ⚠ **Make sure not to bend the pins on the pin header when removing the module.**
- Gently pull the Wi-Fi module **straight down** to remove it from the printer.

STEP 6 Removing the electronics covers


- On the inside of the printer, use the T10 screwdriver to remove the two M3x4rT screws that hold the electronics cover in place.
  - Only remove the highlighted top screw in the middle. The lower screw in the middle will be removed later.
- On the back of the printer, carefully, yet firmly, pull the bottom of the cover towards you.
- Pull slightly downward to release the four tabs on top of the cover from the docks to remove the electronics cover.

STEP 7 Removing the side cover



ⓘ Removing the side panel is not essential. However, we recommend it to prevent scratching the inside of the printer during the process. It also makes the heatbed more accessible.

- Remove the eleven highlighted nylon rivets holding the side panel.

- We recommend using the needle-nose pliers to remove the top part of the nylon rivet. **Squeeze the rivet gently and pull the top part of the rivet out of the side panel.**

  Proceed carefully to avoid scratching the side panel.

- To prevent scratching the side panel, we recommend removing the bottom part of the rivet by hand.

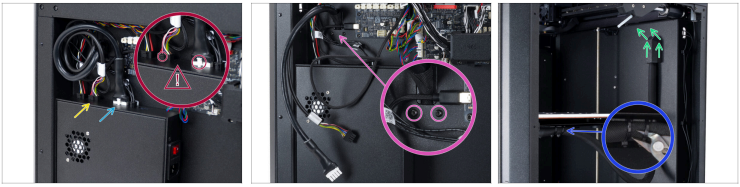
  Only use the pliers if you are unable to remove the bottom part of the nylon rivet by hand.

- When removing the panel, proceed carefully to avoid damaging the PTFE tube that is protruding from the handle.

- Gently pull the side panel off the printer.

You received a bag with spare nylon rivets. In case you destroy any rivets while removing them, use the spare ones later on when re-attaching the side panel.

STEP 8 Unplugging the AC cables



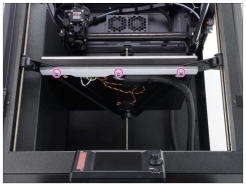
The cable connectors have safety latches. It is necessary to press the latch before disconnecting the cables from the AC box.

- Unplug these two cables that are connected to the AC box:
  - Heatbed data cable
  - Heatbed heater cable

Do not use excessive force to unplug the cables.

- Use the T10 torx key / T10 torx screwdriver to remove two M3x8rT screws under the heatbed cable sleeve.
- From the inside of the printer, remove the Heatbed-cable-clamp plastic cover by sliding it upwards.
- Use the flush cutters to carefully remove the two zip ties.

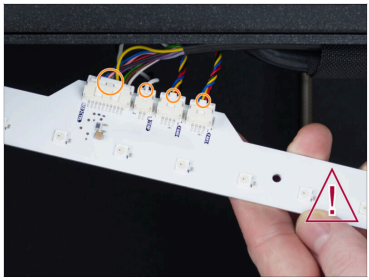
STEP 9 Removing the LED panel

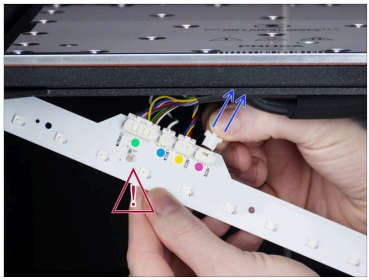


- Use the 2.5mm Allen key to remove the three M3x10 screw that hold the LED panel in place.
- Gently lower the LED panel. **Note that the plastic cover is not fixed to the LED panel**; hold it in place to prevent it from falling.
- Remove the cover from the LED panel.

⚠ **Do not touch LEDs and resistors on the LED panel!**

STEP 10 Disconnecting the LED panel

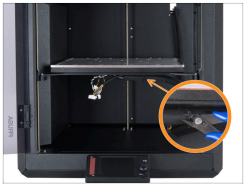


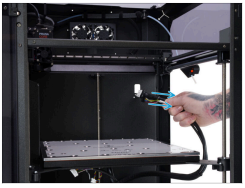


Do not touch LEDs and resistors on the LED panel! Only touch the panel in the spaces between.

- Note that each connector is secured in place with a safety latch. Press the latch to disconnect the cables.
- Pull these four cables from the LED panel:
  - Heatbed heater cable marked BED CTRL.
  - Heatbed thermistor cable marked TEMP.
  - Front fan cable marked FAN 0
  - Rear fan cable marked FAN 1
- Carefully set the LED panel aside.

STEP 11 Removing the heatbed cables

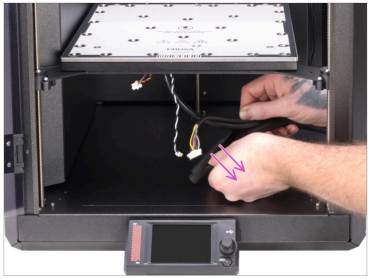




- Use flush cutters to remove the front zip tie under the heatbed carefully.
- On the rear side of the printer, note the Buddy3D camera USB-C cable. **Make sure not to damage this cable in the next step.**

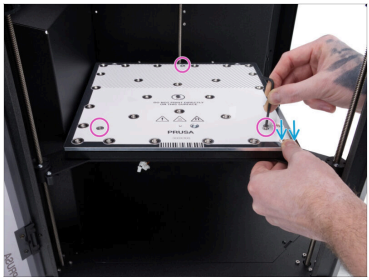
  ⓘ Optional: You can disconnect the USB-C cable from the xBuddy board to make the removal of the heatbed cables easier.
- Carefully pull the heatbed cables through the hole in the back panel.

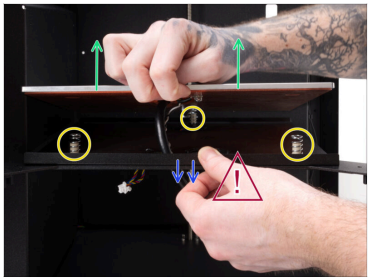
STEP 12 Removing the cable sleeve




- Remove the cable sleeve from the heatbed cables and set it aside.
- Once the cable sleeve is removed, take the heatbed data cable and set it aside as well.

STEP 13 Removing the heatbed part I





- Use the T25 key to remove the three M4x16cT screws.

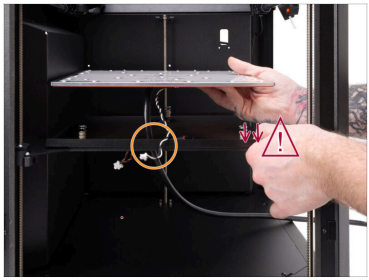
  Double-check to make sure to remove only the correct highlighted screws.

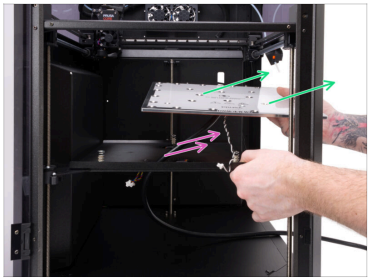
- When removing the screws, push down on the heatbed near each screw. This will make the removal easier, as the heatbed stays leveled.
- Before lifting the heatbed, push the heatbed mount down towards the Z carriage. Hold it in position during the heatbed removal.

Ensure that the heatbed mount stays in position when lifting the heatbed! Otherwise, the heatbed spacers might fall out of their sockets.

- Lift the heatbed off the heatbed mount slowly and carefully.
- **The springs around the heatbed spacers can be lifted by the magnetic heatbed.** If that happens, return the springs once the heatbed is removed.

STEP 14 Removing the heatbed part II





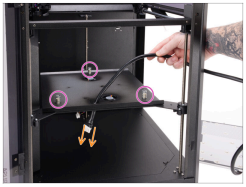
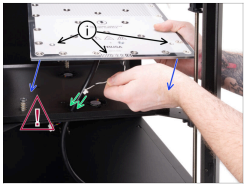
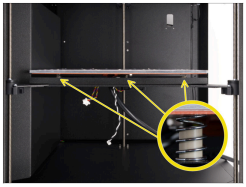
⚠ **Hold the heatbed mount in position until the heatbed is completely removed!** Otherwise, the heatbed spacers might fall out of their sockets.

- Pull the heatbed thermistor cable safely through the hole in the heatbed mount as you lift the heatbed.
- Carefully remove the heatbed from the printer through the side.
- While holding the heatbed mount in position, pull the heatbed heater cable through the hole in the heatbed mount.
- Set the heatbed aside. The heatbed is magnetic. Ensure not to place it directly on a metal or magnetic surface!

STEP 15 Parts Preparation: Heatbed

- **For the following steps, please prepare:**
- New heatbed
  - Use flush cutters to carefully remove the cable zip tie.

STEP 16 Mounting the new heatbed

- Check that all three springs are in place on the heatbed spacers.
- Insert the heatbed heater cable into the hole in the heatbed mount.

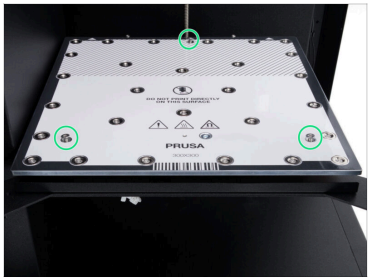
The new heatbed has to be mounted with the two holes for the M4x16cT screws and the barcode/QR code in the front.

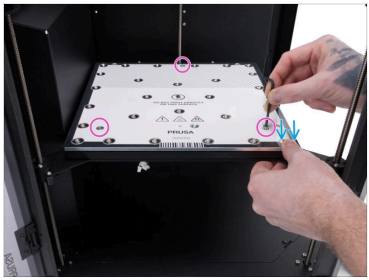
- Insert the heatbed thermistor cable into the hole in the heatbed mount
- Once both cables are inserted through the heatbed mount, carefully lower the heatbed onto the mount.

Be careful when placing the new heatbed on the heatbed mount. The heatbed is magnetic and can cause the springs to be misplaced.

- Once the new heatbed is in place, double-check that all three springs are in place.

STEP 17 Securing the new heatbed





- Insert the three M4x16cT screws into the highlighted holes and tighten each halfway through using the T20 key.
- Continue to tighten each screw completely, so the heatbed firmly sits on the heatbed mount.

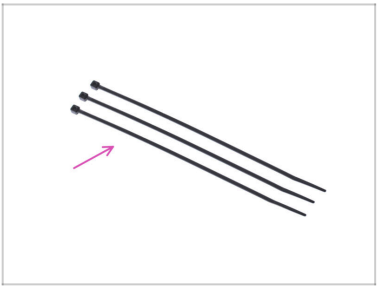
STEP 18 Attaching the cable sleeve



- Add the heatbed data cable to the heatbed heater cable.
- Wrap the cable sleeve around both cables, then lead the cables through the sleeve.
- Ensure that the heatbed data cable protrudes from the cable sleeve under the heatbed at least 20 cm / 7.8 inches.

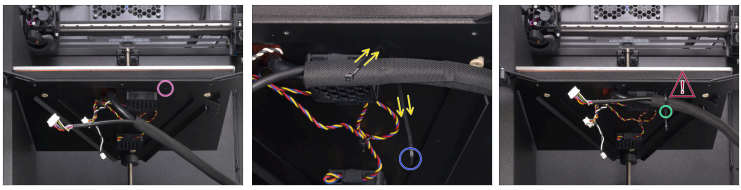
  ⓘ The heatbed data cable must protrude a sufficient length to be plugged into the LED board later.
- Wrap both cables in the cable sleeve all the way.

STEP 19 Parts preparation: zip ties



- For the next steps, prepare:
  - Zip tie (3x)

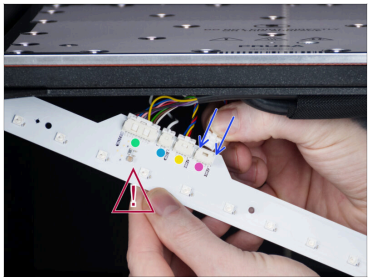
STEP 20 Attaching the front zip tie

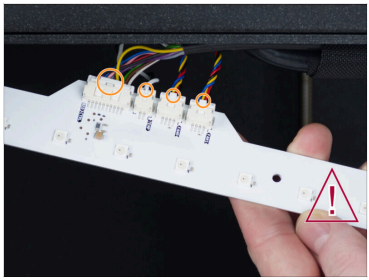


- The zip tie will be inserted into this hole in the Z carriage.
- Bend the end of the ziptie to make it easier to insert into the Z carriage under the heatbed.
- Insert the ziptie and push it through until it emerges from underneath the heatbed mount.
- Loop and connect the zip tie.

⚠ **Do not fully tighten the ziptie around the cable sleeve! Leave the connected zip tie loose for now.**

STEP 21 Connecting the LED panel





- With the front zip tie in place, prepare the LED panel, the LED panel cover, and the three M3x10 screws that we removed before.

⚠ **Do not touch LEDs and resistors on the LED panel! Only touch the panel in the spaces between.**

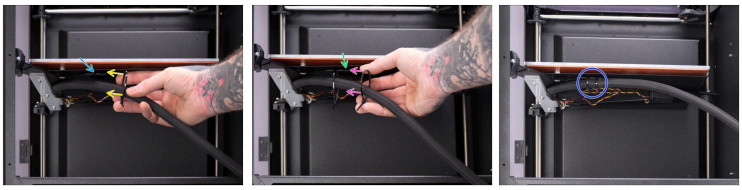
- Plug all the cables into the connectors on the LED board.
  - Heatbed heater cable marked BED CTRL.
  - Heatbed thermistor cable marked TEMP.
  - Front fan cable marked FAN 0
  - Rear fan cable marked FAN 1
- **Ensure that the safety latch clicks into place** and holds each connector securely in position.

STEP 22 Attaching the LED panel

Do not touch LEDs and resistors on the LED panel!

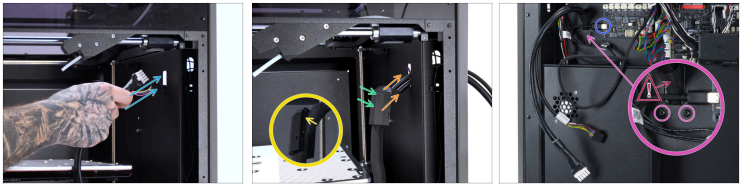
- Place the cover on the LED panel. Ensure that the three holes in the cover align with the three holes in the LED panel.
- While holding the LED panel and the cover together, mount them on the Z carriage.
- Use the 2.5mm Allen key to mount the LED panel onto the Z carriage with three M3x10 screws.
- With the LED panel in place and all cables securely connected, tighten the zip tie around the cable sleeve.
- Use flush cutters to remove the excess zip tie.

STEP 23 Attaching the side zip ties



- Wrap and connect one zip tie around the heatbed cables and move it between the Z carriage and the heatbed mount as well.
- Hook the zip tie around the left ridge in the Z carriage.
- Wrap the last zip tie around the heatbed cables and move it between the Z carriage and the heatbed mount as well.
- Hook the zip tie around the right ridge in the Z carriage.
- Tighten both zip ties and use flush cutters to remove the excess zip tie.

STEP 24 Connecting the heatbed cables



- From the inside of the printer, push the heatbed cables through the back panel until the cable sleeve reaches the hole.
- Mount the Heatbed-cable-clamp on the end of the textile sleeve **with the thinner cable on top** and push the cables into the ridge in the Heatbed-cable-clamp.
- Attach the Heatbed-cable-clamp to the hole in the back panel and hold it in place with one hand.
- The Heatbed-cable-clamp has a ridge on top around the cable sleeve to help keep the clamp in place once inserted into the back panel.

⚠ **The sleeve must be tightly wrapped around the cables and must protrude slightly from the back.**

- On the rear side of the printer, fix the Heatbed-cable-clamp in place with two M3x8rT screws.
- If you have disconnected the Buddy3D USB-C cable, ensure that you plug it back into the extension board once the cables are secured.

STEP 25 Plugging in the heatbed cables

- Loop the heatbed data cable and the heatbed heater cable as shown in the photo to ensure all cables fit under the cover.
  - Plug the heatbed data cable into the AC box.
  - Plug the heatbed heater cable into the AC box.

⚠ **Ensure that the safety latch on each cable clicks into place to hold both connectors securely in position.**

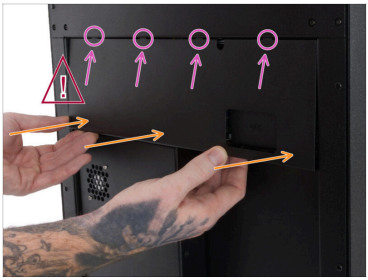
ⓘ Note that this AC box socket will remain empty.

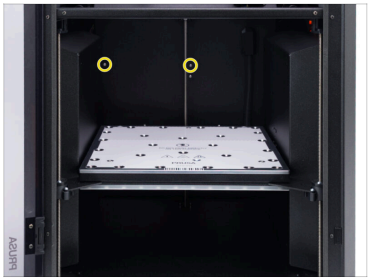
STEP 26 Re-attaching the side cover



- Place the side cover on the printer.
- **Carefully insert the short PTFE tube** from the filament sensor through the opening in the side cover handle.
- **You received a spare bag of nylon rivets with your printer.** If you damaged any rivets, use the spare ones when re-attaching the side panel.
- Fix the side cover in place using 11x nylon rivets. Push one in each indicated hole, and the rivet will hold the side cover in place.
  - Start at the top of the side cover. We recommend holding the side panel in place with one hand while installing the first few rivets.

STEP 27 Covering the electronics

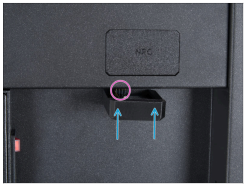




Double-check that all cables are covered and that no cables are pinched!

- Ensure that each of the four tabs on top of the electronics cover slides into the four docks in the rear printer cover.
- Carefully, yet firmly, push the bottom of the cover towards the printer to re-attach it to the printer.
- Secure the electronics cover in place with two M3x4rT screws from inside of the printer.

STEP 28 Reattaching the Wi-Fi module



Note that the Wi-Fi module will be connected to the electronics by the pin header with eight pins.

Ensure that the Wi-Fi module is positioned correctly when plugging it into the connector.

Ensure that you do not bend any pins on the pin header when reattaching the module.

Gently insert the Wi-Fi module straight upward into the connector to avoid bending the pins.

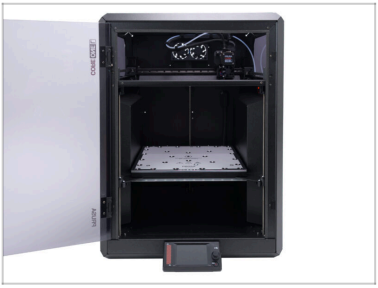
Use the 2.5 mm Allen key to tighten the M3x14 screw.

STEP 29 Powering the printer & selftest



- From the rear side of the printer, plug in the power cable into the new AC box.
- Flip the power switch ON (symbol "I").
- Selftest: Navigate through the menu to ***Control -> Calibrations & tests-> Fan test*** and initiate the fan test.
- Once the fan test is completed, run the remaining tests by selecting ALL and following the instructions on the screen.

STEP 30 Done



- Congratulations. You have successfully replaced the PRUSA CORE One L heatbed!
- Happy printing.

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