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How to replace the A64 board (SL1)



help.prusa3d.com/g151162

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display the latest
version of this
chapter.



STEP 1 Introduction



i This guide will take you through the replacement of the **PrusaA64-SL1 board** on the **Original Prusa SL1**.

◆ All necessary parts are available in our eshop shop.prusa3d.com

i Note that you have to be logged in to have access to the spare parts section.

⚠ **WARNING:** This device utilizes UV light, which can harm your eyesight or skin. Do not turn the device ON until it is fully reassembled with all the covers installed!!!

STEP 2 Important: Electronics protection

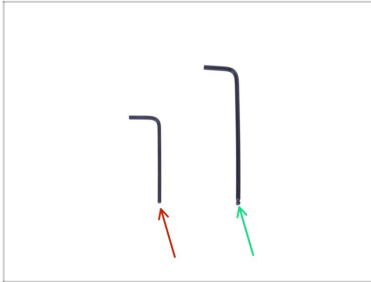
How to replace the A64 board (SL1)



⚠ WARNING: Make sure to **protect the electronics against electrostatic discharge (ESD)**. Always **unpack the electronics right before you need them!**

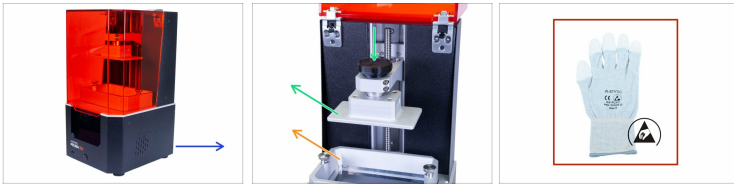
- Here are some **tips to prevent damage to the electronics:**
 - **Keep the electronics inside the ESD bag** right until you are asked to install them.
 - **Always touch the sides of the board** while manipulating with it. Avoid touching the chips, capacitors, and other parts of the electronics.
 - **Before you touch the electronics** use any **conductive (steel) structure** nearby to discharge yourself.
 - **Be extra cautious in the rooms with carpets**, which are a source of electrostatic energy.
 - Clothes from wool and certain synthetic fabrics can easily gather static electricity. It is safer to wear **cotton clothing**.

STEP 3 Tools necessary for this chapter








- 2.0mm Allen key
- 2.5mm Allen key

STEP 4 Preparing the printer

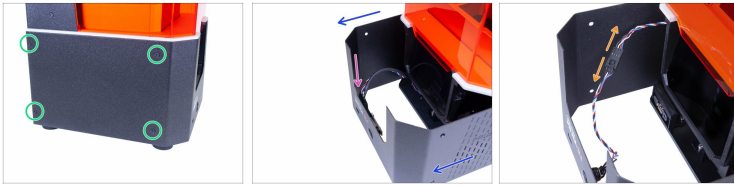



 **Before you start, make sure that:**








-  the printer is plugged off
-  the resin tank is removed
-  the print platform is removed
-  you use ESD gloves (recommended)

 ESD gloves are anti-static (prevent damage to the electronics).

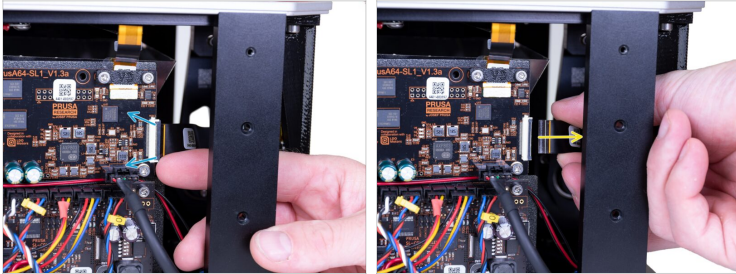
STEP 5 Removing the cover



 **Proceed carefully with these screws, preferably use an Allen key with straight sharp edges, there is a risk of stripping the screw's head.**


-  Turn the left side of the printer towards you.
-  Locate, release and remove four screws.
-  Turn the printer to the other side (180 °) and again release four screws.
-  Slide the cover just a few cm/inches out.
-  **There are two designs of USB and power button:**
 -  **NEW DESIGN:** The USB and the power button have the same connector. Disconnect the cable and remove the cover completely.
 -  **OLD DESIGN:** The USB and the power button are separated. Disconnect the power button cable from the extension cable and remove the cover completely.

STEP 6 Disconnecting the touchscreen (new version)



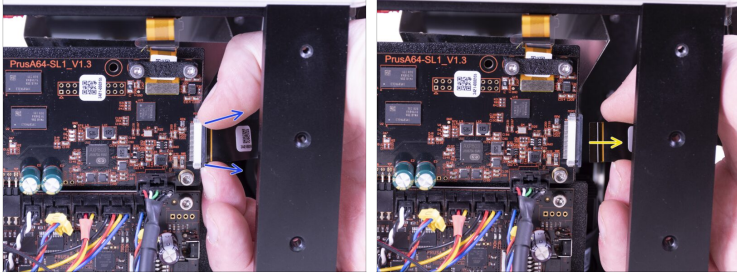
 There are **TWO VERSIONS** of the LCD connector:


- ◆ **The new connector** has a safety latch, which has to be **flipped** before inserting the cable (board V1.3a). **Use this step.**
- ◆ **The old connector** has a safety latch, which must be **pulled out** before inserting the cable (board V1.3) Skip to the next step.



 **WARNING:** screen cables and connectors are fragile. Please proceed with extra caution.

- ◆ Gently flip out the black safety latch. Note that it is not removable.
- ◆ Carefully remove the cable from the connector.

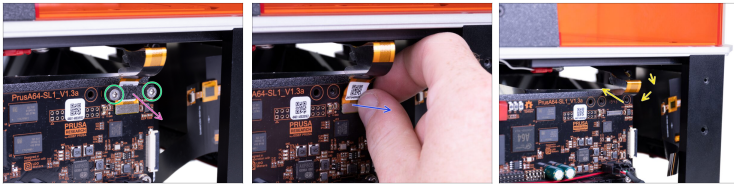
STEP 7 Disconnecting the touchscreen (old version)



 **WARNING:** screen cables and connectors are fragile. Please proceed with extra caution.

-  Gently pull out the black safety latch. Note that it is not removable.
-  Carefully remove the cable from the connector.

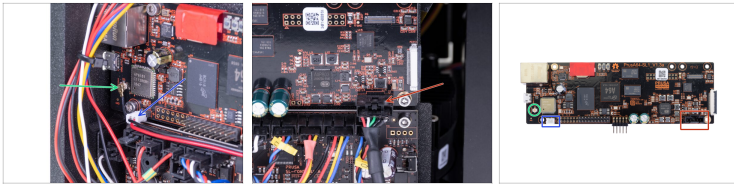
STEP 8 Disconnecting the print display



⚠ WARNING: be very careful while disconnecting the cable, you might damage both the cable and the board!

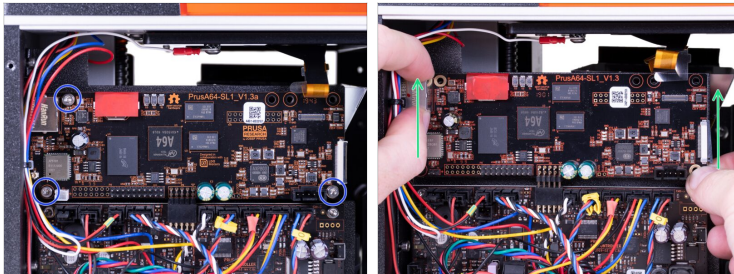
- ◆ Release and remove the M3x8 screws. Keep them for the reassembly.
- ◆ Remove the display cable holder.
- ◆ **GENTLY** pull the cable closest to the "silver rectangle" to disconnect the connector from the board. If possible you can use your nails to push the connector out. Don't use any tool like pliers or screwdriver.
- ◆ Carefully place the display cable behind the electronics holder.

STEP 9 Disconnecting the electronics



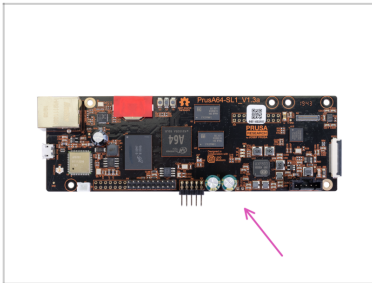
- ◆ Disconnect the WiFi cable, be gentle with the connector. Pull straight, don't wiggle to sides.
- ◆ Disconnect the speaker cable.
- ◆ Disconnect the USB cable, there is a safety latch.

STEP 10 Removing the PrusaA64-SL1



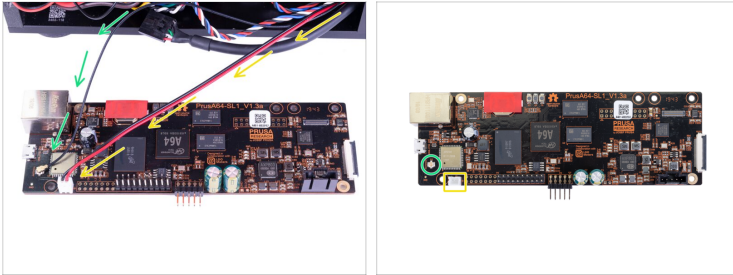
- ◆ Release three screws on the board.
- ◆ Push the PrusaA64-SL1 board up and remove it from the printer.

STEP 11 New PrusaA64-SL1 board - preparation



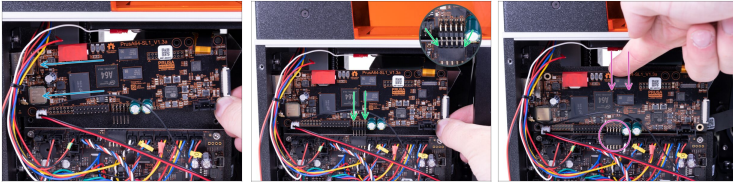
- **For the following steps, please prepare:**
- New PrusaA64-SL1 board (1x)

STEP 12 Connecting the WiFi and speaker cables



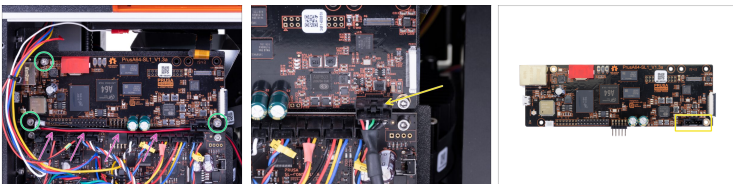
- ◆ Place the PrusA64-SL1 board close to the left side of the printer so that the Wi-Fi and speaker cables can reach the connectors. **Avoid stretching the cables!**
 - ◆ Find the Wi-Fi cable inside the printer and then connect it to the board. **Be careful** while plugging the connector back in.
 - ◆ Find the speaker cable inside the printer and then connect it to the board. **Black wire must be on the left!**
- ⓘ Make sure the Wi-Fi connector is properly connected. Press the connector slightly into the board with your finger. You should feel a slight "click".

STEP 13 Mounting the PrusaA64



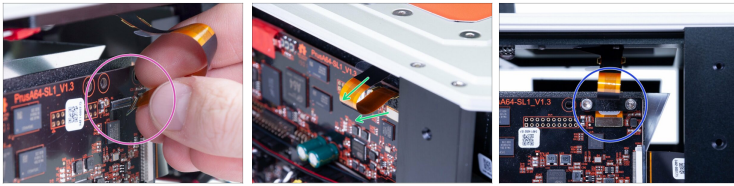
- Insert the PrusaA64-SL1 board inside the printer at a slight angle, see the picture.
- Align the pins of the PrusaA64-SL1 board against the connector on the Motion Controller board.
- Gently push on the A64 board so that the pins slide in the connector on the MC board below.

STEP 14 Mounting the PrusaA64



- Secure the board with three M3x5 screws to the electronics holder.
- Guide the WiFi and the speaker cables through the gap between the boards.
- Connect the USB cable, mind the correct orientation of the connector.

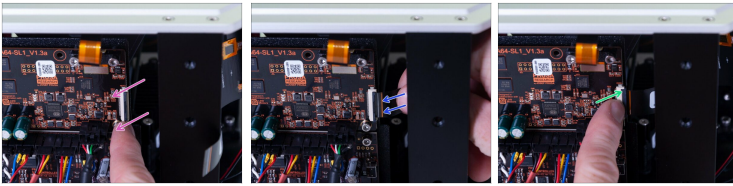
STEP 15 Connecting the print display






WARNING: screen cables and connectors are fragile. Please proceed with extra caution.

- ◆ Connect the print display to the connector. Be careful with the alignment. You should hear a click.
- ◆ Make sure the cable is facing the "front" and not stuck between the reflector and the electronics holder.
- ◆ Secure the print display cable with the printed part. Be careful while tightening the M3x8 screws.

STEP 16 Connecting the touchscreen (new version)



WARNING: screen cables and connectors are fragile. Please proceed with extra caution.

-  Gently flip out the black safety latch. Note that it is not removable.
-  Insert the cable from the touchscreen. Make sure the cable is straight and not twisted.
-  Lock the cable in place by pushing the safety latch back.

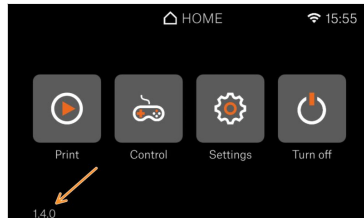
STEP 17 Calibration the new UV LED assembly - preparation

How to replace the A64 board (SL1)



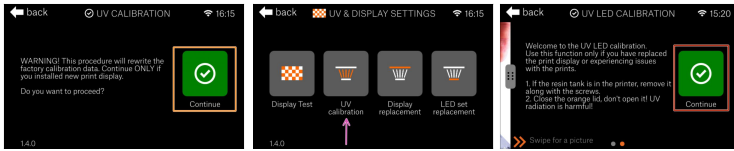
- **For the following steps, please prepare:**
- UV calibrator (1x)
- MicroUSB cable (1x)
- ⓘ Starting firmware 1.4.0, the system allows for user calibration of the UV light intensity, using an external UV calibrator. This action is required each time the PrusA64-SL1 is replaced with a new one.

STEP 18 Calibrating the new UV LED assembly - Booting up the printer



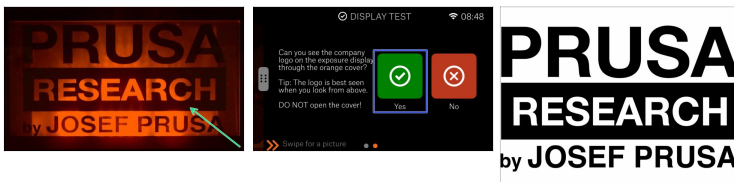
- Plug the printer in and turn it ON.
- Wait for the printer boot and display the Home screen. Verify you have **firmware version 1.4.0 or higher**. If you are on an older version of the firmware, please update it now.

STEP 19 Initiating the calibration process



- There is a guide, which will take you through the entire process, read the instructions carefully, then click **Continue**.
- Navigate the menu to "Settings -> Advanced settings", swipe down to "UV & Display settings" and select **UV calibration**.
- You will receive a warning that the factory calibration data will be cleared. Select **Continue**.

STEP 20 Testing the display



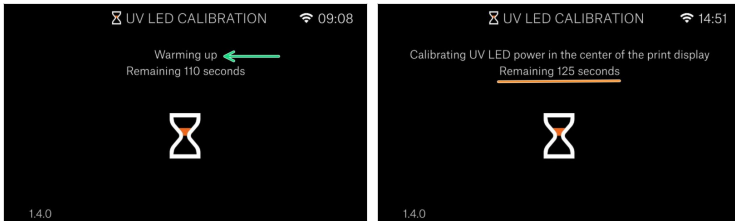
- Don't open the lid under any circumstances, keep it closed! The UV light inside will cause damage to your eyes.**
- Looking from above, check the entire screen. You must be able to see our company logo in full. No parts (letters) should be missing.
- Confirm the display is working by selecting Yes.

STEP 21 Placing the UV meter and connect it to the printer



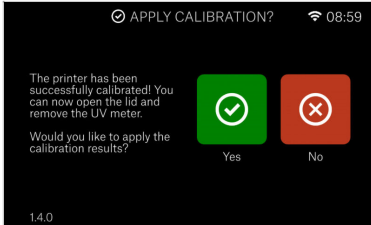
- ◆ Open the lid and place the UV calibrator on the display, with the photosensors towards the display. Make sure the guide pegs on the UV calibrator fit into the holes for the tank screws and that the calibrator lays flat against the display. Then plug in the USB cable.
- ◆ Close the lid carefully, with the cable from the UV meter coming out from above the touchscreen.
- ◆ Once you select **Continue**, the calibration procedure will start.

STEP 22 Calibration process



- The calibration process is fully automatic. It will inform you of its progress and current task. The whole procedure only takes a few minutes.
- The process starts by warming up the LED panel to a stable temperature, before calibrating the different areas of the display.
- You will be provided with an estimate on how much time is remaining of each part. Feel free to leave the printer and get some gummy bears. We are almost done:)

STEP 23 Applying the calibration results



Once the calibration procedure is complete you will be asked if you want to apply the results.

i If you select "No", no change will be made and you will be taken back to the UV & Display Settings page

STEP 24 Finished!



- ◆ Now, please read the **3D Printing Handbook** and follow the instructions to **calibrate the printer**. The latest version is always available at prusa3d.com/3dhandbookSL1
- ◆ Congrats, your **new PrusA64 board** is successfully replaced and you are ready to print!
- ⓘ Thanks to the calibration the printer is compatible with the resin presets in PrusaSlicer.
