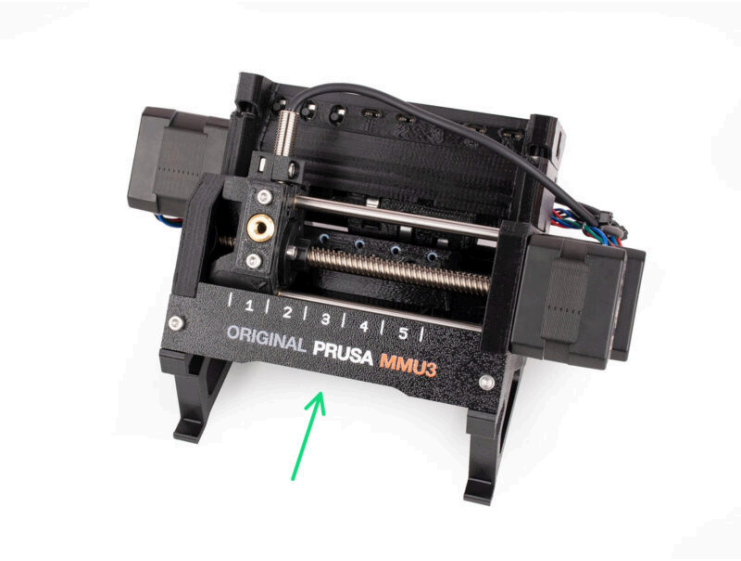
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1. Conversion



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STEP 1 Introduction



- In this guide, we will be upgrading the MK4S MMU3 setup into CORE One MMU3.
- MMU3 installation requires extruder modifications. However, we need to make a few other adjustments before proceeding with that.
  - **Let's quickly review the key points we'll cover in this guide:**

STEP 2 Conversion Printable parts INFO



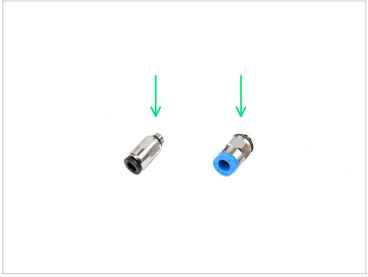


⚠ You might need to print some parts, before proceeding with the upgrade, depending on the MMU3 version you are planning to build.

- MMU3 **Enclosed** (for CORE One) Conversion kit contains all the printed parts.

⚠ MMU3 **Lite** (for CORE One) Conversion kit requires you to print a few plastic parts for the Buffer and the Unit. Download these from Printables.com

STEP 3 MMU3 Version Check





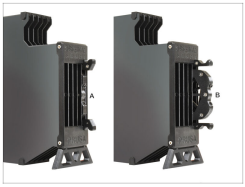
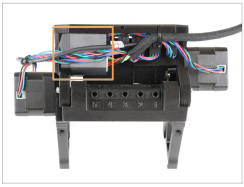
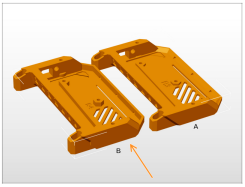
- Multiple hardware changes occurred during the MMU3 production.

ⓘ **CORE One** is only compatible with the latest versions of the MMU3 units, specifically those used on the MK4/S. MMU units from other printer models may not be compatible with CORE One!

- Check the PTFE fittings. The black version is compatible, but not all blue fittings are.
  - The compatible blue fittings are only the ones with the internal diameter of 2.6mm, shipped from April 2024. (shipped with MK4/S MMU3)

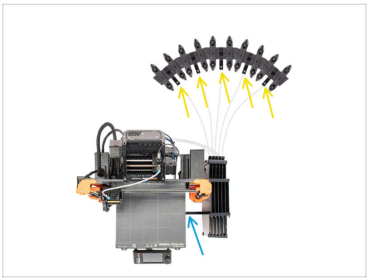
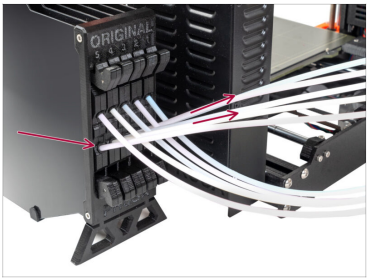
  📌 One fitting should be reused from your older MMU3 setup. If you have doubt, we recommend getting the black fitting from Prusa E-shop.

STEP 4 Buffer Check

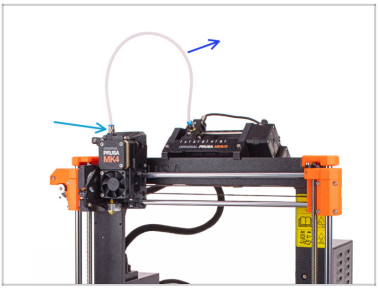
- The MK4S MMU3 should already use the **compatible** newer **buffer cartridges**, **version B**. Version A is not compatible but can be updated.
- Check the back of your MMU3 unit. If it has a cover over the PD board addon, your unit uses the latest revision of the plastic parts.
  - If you have an older revision, we recommend updating the electronics cover to the latest version and adding the PD-board cover.

STEP 5 PTFE tubes disconnecting

- Disconnect the PTFE tubes from the spool holders.
- Disconnect the PTFE tubes that lead to the MMU3 unit, from the buffer cassettes.
- Remove the buffer from the printer.

STEP 6 PTFE tube disconnecting 2

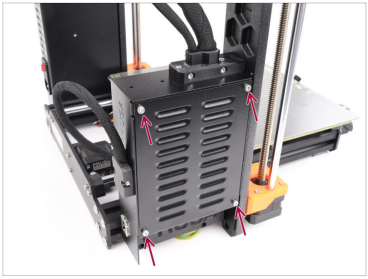


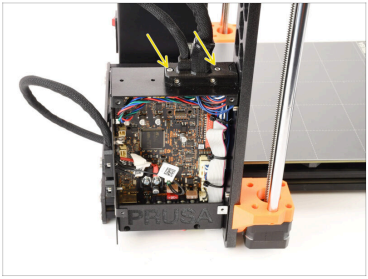
- Disconnect the PTFE tube between the MMU unit and the extruder.

  ⚠ Discard this 360mm PTFE tube. The MMU3 on CORE One requires a PTFE tube either 390mm or 450mm long, so the old one can't be reused!

- Remove the fitting from the extruder. Set it aside, as it will be replaced with a new one.

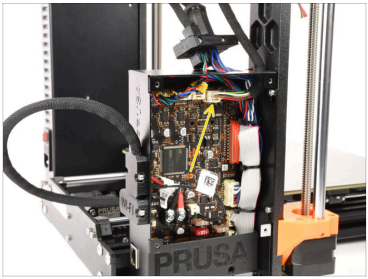
STEP 7 xBuddy box opening

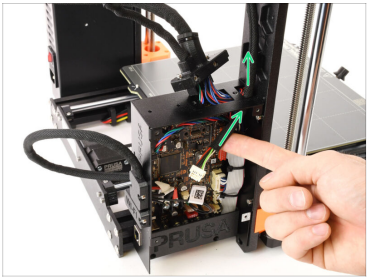




- On the left side of the printer, remove the four M3x6 screws holding the xBuddy box cover in place. Then, take off the cover.
- Remove the two M3x18 screws holding the ext-cable-holder.

STEP 8 Cable Disconnecting



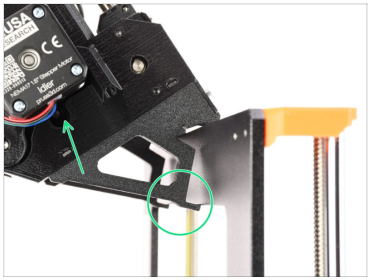


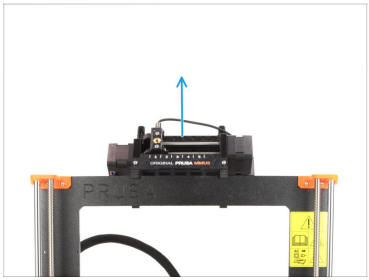
- Disconnect the MMU cable from the xBuddy board. Note that there is a safety latch that must be pressed, in order to disconnect the cable.

  ⚠ The connector has a safety latch. It is necessary to press the latch before disconnecting. Otherwise, the connector may get damaged.

- Remove the cable from the xBuddy box.

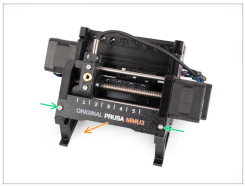
STEP 9 MMU Removal



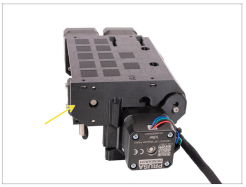


- Lift the back of the MMU unit to unclamp it from the printer's frame.
- Remove the MMU3 unit from the printer.

STEP 10 Frame Holders Removal

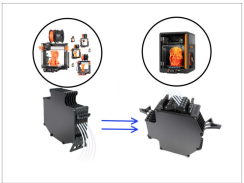
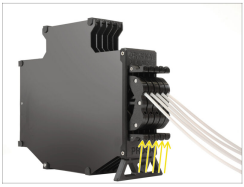






- Undo the two M3 screws holding the label plate.
- Remove the label plate and save it for possible later use.
- Remove the four M3x10 screws holding the Frame holders. Set the frame holders aside as they will not be used.
- Save the MMU unit with the PTFE tubes for later use.

STEP 11 Buffer Rebuild

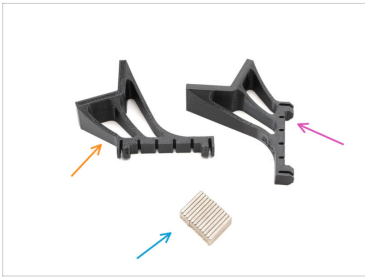




- MMU3 on CORE One necessitates the use of a slightly different Buffer design, compared to the other printer models.

ⓘ In the upcoming steps, we will be upgrading it.

- Remove all the cassettes from your MK4S buffer and prepare the bare buffer body.

STEP 12 Plate Holders Preparation

- **For the following steps, prepare:**
- Plate Holders (4x)
- Plate holder L (1x)
- Plate holder R (1x)
- Magnet 2x6x20 (12x)

STEP 13 Magnet Installation

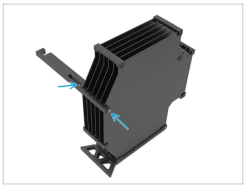


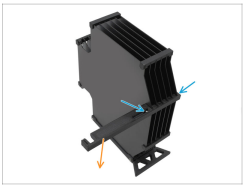
- Install all twelve magnets into the marked openings on both the Plate holder L and R parts.

  ⓘ Make sure all the magnets are fully inserted.

  The orientation of the magnets is not important.

STEP 14 Buffer Rebuild 2



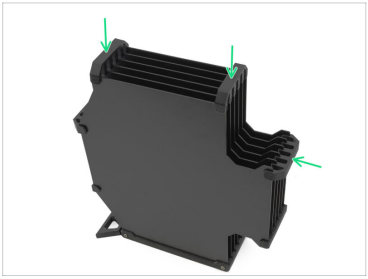




- Remove the M3x30 screws holding the Printer holder part.
  - Remove the Printer Holder and discard it.
- Install the new plate holder as indicated, so that it faces away from the buffer. Make sure it clicks in place and all the plates are properly aligned into the recesses.

STEP 15 Buffer Rebuild 3





- Remove the marked three old-type plate holders.
- Replace the plate holders with the three remaining pieces of the new type.

STEP 16 Buffer Rebuild 4

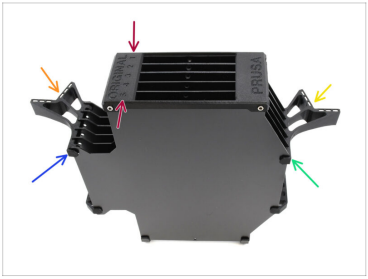




- Keep the buffer positioned as in the picture, with the cassetter part facing down. This will keep the N3nS nuts from falling out in this step.
- Remove the two M3x30 screws holding the Buffer Leg part.
- Remove the Buffer Leg.
- Reinstall the M3x30 screws back into place. Tightem them very lightly to prevent warping the plates.

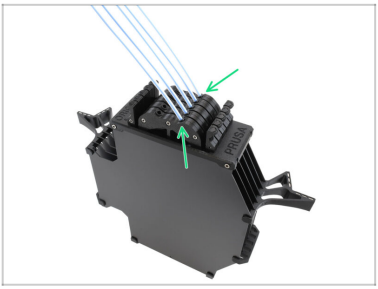
STEP 17 Buffer Rebuild 5





- Remove the remaining two old-type plate holders.
- Orient the assembly so that the segmenter is on top, with the position labeled 1 facing away from you and position 5 toward you.
- Install the Plate Holder L onto the left side of the assembly.
- The magnets should face away from you, toward position 1.
- Install the Plate Holder R onto the right side of the assembly.
- The magnets should face away from you, toward position 1.

STEP 18 Buffer Ready To Roll



- Insert all the cartridges into the buffer body.

  Make sure the inserted PTFE tubes are on the right side, when the magnets are facing away from you.

STEP 19 MK4S to CORE One Conversion







- Update the printer according to the MK4S to CORE One Conversion guide.
  - **The only major difference is that your Nextruder is still modified for MMU use.** You may need to bypass the filament sensor calibration during self-test by manually pushing the idler tension bolts instead of loading a filament when you reach that stage.
- **After converting the printer** to CORE One, disconnect the **PTFE tube** and hook it to the extruder_PTFE_holder plastic part.

Then, continue to the chapter: 10D. CORE One Setup and Calibration

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