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How to replace the Belt Tensioner Right (CORE One)



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STEP 1 Introduction



- This guide will take you through the **Belt-tensioner-right** and the **Belt-tensioner-pulley** assemblies 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.



Warning: You will be handling metal sheets in this guide. Be careful!

STEP 2 Tools necessary for this guide



- Please prepare tools for this guide:
 - 2.5mm Allen key
 - Prusa lubricant or another suitable grease (available in e-shop)

STEP 3 Printer Preparation



- On the printer, visit the menu **Control** and trigger the **Auto Home**.
- Turn the printer off using the switch on the back.
- Disconnect the printer from power.

STEP 4 Tensioner Pulley Info



- Two belt-tensioner assemblies are located on each side of the printer.

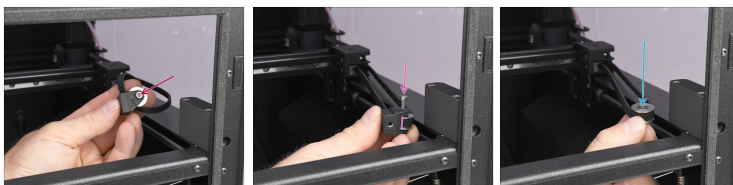
i In this guide, we will be replacing the assembly on the **right side** only.

STEP 5 Tensioner Pulley Removal



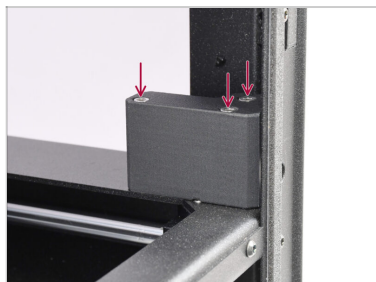
- Fully loosen the belt tensioning screw.
 - On the inside of the printer, pull by the belt to disengage the belt-tensioner-pulley assembly.
- i** If the pulley assembly can't be removed this way, skip this step and disassemble it after removing the entire tensioner assembly.

STEP 6 Pulley Assembly Disassembly



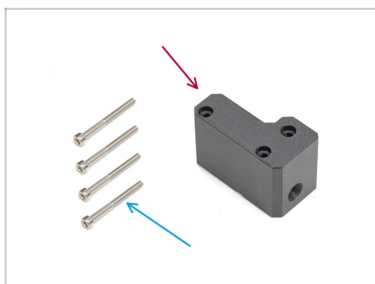
- On the pulley assembly, remove the M3x18 screw.
- The plastic part and the GT2-20 Idler Pulley will separate.
- Remove the GT2-20 Idler Pulley from the belt.

STEP 7 Belt-Tensioner-Right Removal



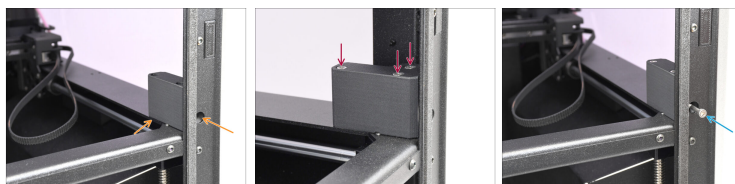
- On the inside of the printer, remove the three screws holding the belt-tensioner-right part and remove the component.

STEP 8 Belt-Tensioner-Right Preparation



- For the following steps, prepare:
- Belt-tensioner-right (1x)
- M3x30 screw (4x)

STEP 9 Belt-Tensioner-Right Installation



- Add the new belt-tensioner-right part into the printer. Align it with the Core-XY assembly as well as with the tensioning opening at the front.
- Fix the part in place on the CoreXY assembly using the three M3x30 screws.
- Insert the M3x30 tensioning screw into the front opening.
- i** Do not tighten the screw yet, as there are no threads in the part to engage with. It will be installed later.

STEP 10 Belt-Tensioner-Pulley Preparation



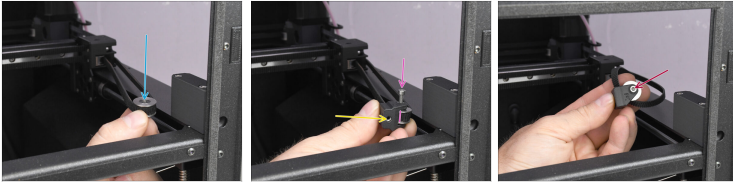
- **For the following steps, prepare:**
- Belt-tensioner-pulley plastic part (1x)
- M3nS nut (1x)
- M3x18 screw (1x)
- GT2-20 Idler Pulley (1x)

STEP 11 Tensioner Preparation



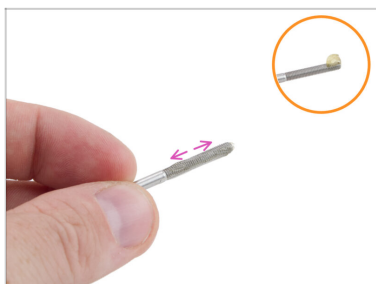
- Note that the Belt-tensioner-pulley part has "R" and "L" markings; for use on the right side, ensure the "R" is facing up.
- Insert the M3nS nut into the corresponding opening in the plastic part and push it all the way in.

STEP 12 Pulley Assembly



- Hook the GT2-20 Idler Pulley by the belt on the inside of the printer.
 - ⚠ **Make sure the belt is straight and not twisted!**
- Attach the Belt-tensioner-pulley plastic part onto the pulley itself.
 - ⚠ **Make sure the part with the nut is pointing towards the center of the printer!!**
- Align both parts and fix them together using the M3x18 screw.
 - Tighten the screw.
 - ⓘ The "R" marking should be visible on top.

STEP 13 Tensioning Bolt Lubrication



- Before re-installing the M3x30 **belt tensioning bolt**, it should be lubricated to ensure smooth belt adjustment and to prevent the tensioner from seizing.
- Apply a small amount of Prusa lubricant to the tip of the M3x30 screw.
- Spread the lubricant evenly around the entire thread.

STEP 14 Pulley Assembly Installation



- ✦ Push the assembly towards the inside of the belt-tensioner plastic part inside the printer.
 - ✦ The opening with the nut on the pulley assembly must align with the tensioning bolt.
 - ✦ Tighten the M3x30 tensioning bolt to fix the assembly in place.
- 📌 Do not tighten the screw fully yet.

STEP 15 Belt Tensioning



- ✦ Connect the printer to power.
- ✦ Turn the printer on using the switch on the back.
- ✦ Visit the [Adjusting belt tension](#) article and tighten both the belts to the correct tension.

STEP 16 Finish



- To finish the repair, we recommend to visit the menu ***Control -> Calibrations & Tests*** and run the Selftest.
- Congratulations. Your printer is ready for use again.

Notes:

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