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How to replace the Belt Tensioner Pulley (CORE One)

help.prusa3d.com/g948766

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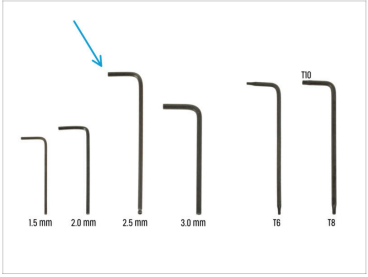
STEP 1 Introduction

- This guide will take you through the **Belt-tensioner-pulley** assembly 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

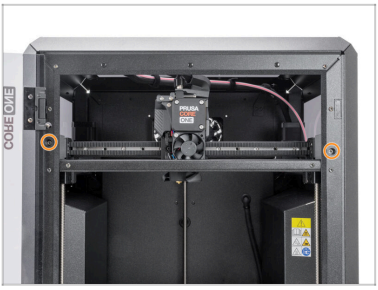


- **Please prepare tools for this guide:**
  - 2.5mm Allen key
  - Prusa lubricant or another suitable grease (available in e-shop)

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.

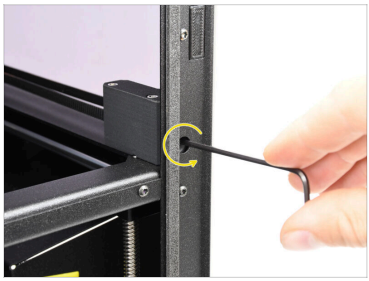
STEP 4 Tensioner Pulley Info



- There are two belt tensioner pulleys on each side.

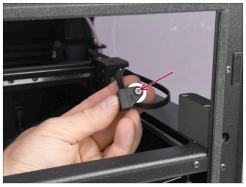
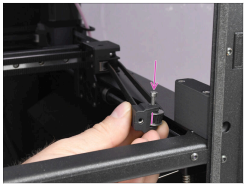
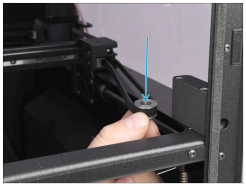
  ⓘ In this guide, we demonstrate the replacement of the component on the right side of the printer, but the process is the same for the left side as well.

STEP 5 Tensioner Pulley Removal



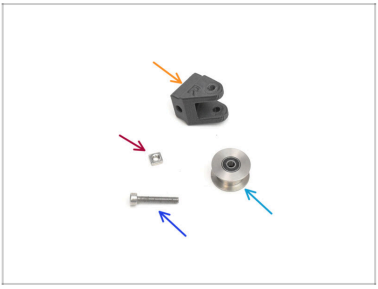
- Fully loosen the belt tensioning screw.
- On the inside of the printer, pull by the belt to disengage the belt-tensioner-pulley assembly.

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-Pulley Preparation

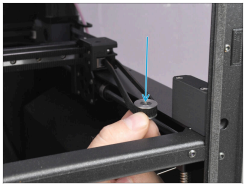
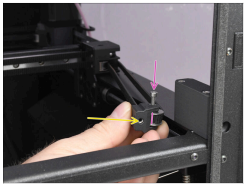


- **For the following steps, prepare:**
- Belt-tensioner-pulley plastic part (1x)
- M3nS nut (1x)
- M3x18 screw (1x)
- GT2-20 Idler Pulley (1x)

STEP 8 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, and for the left side, the "L" should face up.
- Insert the M3nS nut into the corresponding opening in the plastic part and push it all the way in.

STEP 9 Pulley Assembly


- Hook the 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.

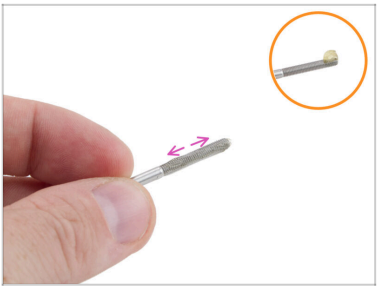
  ⚠ Make sure the part with the nut is pointing towards the center of the printer!!

- Align both parts and fix them together using the M3x18 screw.

  - Tighten the screw.

  ⓘ There should be either the "R" or "L" marking visible on top, depending on the side you are working on.

STEP 10 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 11 Tensioner Installation

- Push the assembly into the belt-tensioner plastic part in 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 12 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 13 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.

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