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# How to replace the hotend fan (XL Multi-tool)



[help.prusa3d.com/g630078](https://help.prusa3d.com/g630078)

**Escanea el código  
QR para ver la última  
versión de este  
capítulo.**

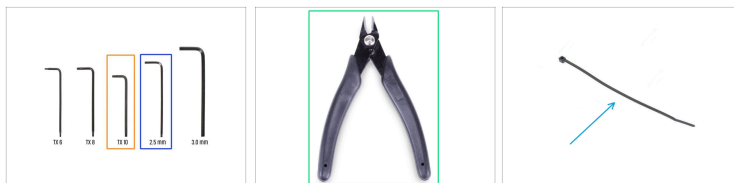


## PASO 1 Introduction



- ◆ This guide will take you through the replacement of the **hotend fan** on the **Original Prusa XL**.
- ⓘ Algunas partes pueden ser ligeramente diferentes. Sin embargo, esto no afecta el procedimiento.
- ◆ Todas las piezas necesarias están disponibles en nuestra tienda [prusa3d.com](https://prusa3d.com).
- 📌 Ten en cuenta que debes iniciar sesión para tener acceso a la sección de repuestos.

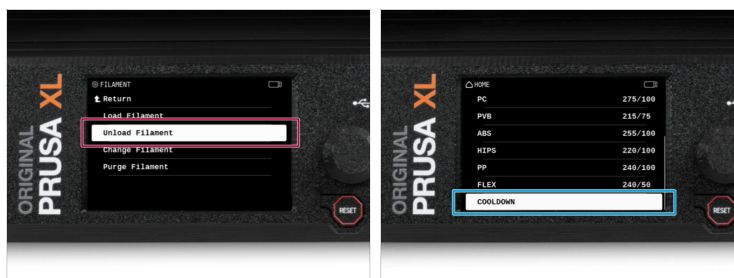
## PASO 2 Tools necessary for this guide



● Para esta guía, prepara:

- TX10 Torx key
- Llave Allen de 2.5 mm
- Side cutters
- Zip tie 1x

## PASO 3 Unloading filament



- **i** The following step is necessary only if you have filament loaded.
- Unload the filament from the hotend. On the screen, navigate to Filament -> Unload Filament.
- Cool down the printer to room temperature. On the screen, navigate to Preheat -> Cooldown.
- **!** **Espera a que la impresora se enfríe completamente a temperatura ambiente antes de continuar.**

## PASO 4 Protecting the heatedbed



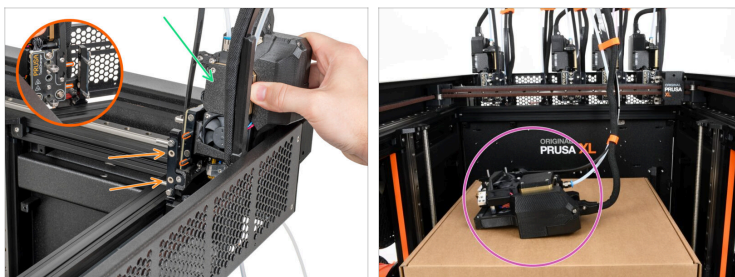
- ◆ Antes de continuar, te recomendamos que protejas la base calefactable.
- ◆ Make sure the heatedbed is cooled down to ambient temperature. Place the empty cardboard box approximately to the front center part of the heatedbed.

## PASO 5 Preparing the printer



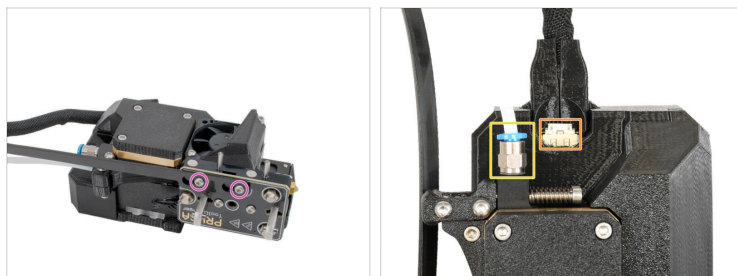
- ◆ En la pantalla de la impresora, ve a *Control* *Coger/Aparcar Cabezal* *Aparcar Cabezal Actual*→ *Coger/Aparcar Cabezal* *Aparcar Cabezal Actual*→ *Aparcar Cabezal Actual*.
- ◆ Apaga el interruptor (símbolo "O").
- ◆ Desde la parte posterior de la impresora, desenchufa el cable de la fuente de alimentación.

## PASO 6 Undocking the Nextruder



- Retira el Nextruder, tirando de él hacia fuera de los insertos metálicos.
- ⓘ Aunque es de esperar una pequeña resistencia, ya que los insertos metálicos son magnéticos, **utiliza una fuerza moderada.**
- Coloca el Nextruder con cuidado en la caja de cartón.

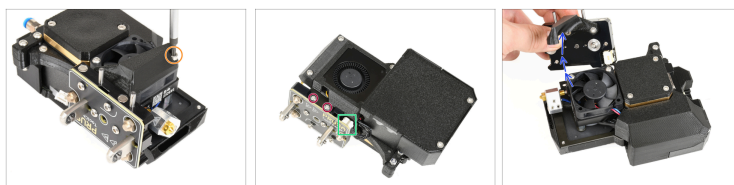
## PASO 7 Disconnecting the Nextruder







- ◆ With Torx T10 screwdriver, loosen the two M3x8rT screws from the black nylon flexible plate, and unhook it from the tool. Don't remove the screws completely.
- ◆ Unscrew the Festo fitting from the Nextruder or push on the blue collar on top of the fitting and pull out the PTFE tube.
- ◆ Disconnect the main Dwarf cable.
- ⚠ **Cada conector tiene una pestaña de seguridad. Es necesario presionar la pestaña antes de desconectar. De lo contrario, el conector podría dañarse.**
- ◆ Transfer the Nextruder to a safe working space.

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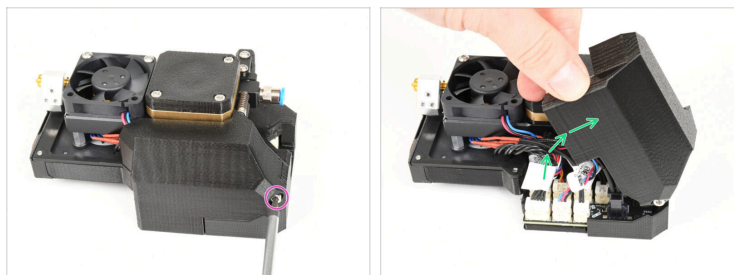
## PASO 8 Removing the toolchanger board





-  With Allen key 2.5 mm remove the M3x30 screw of the fan shield.
-  Remove the M3x8rt screws.
-  Unplug the toolchanger cable.
-  Remove the toolchanger.

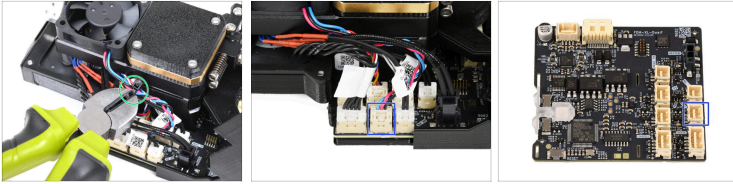
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## PASO 9 Accessing the Dwarf board





-  Loosen (or remove) the M3x12 screw on the Dwarf Cover Door.
-  Open the Dwarf Cover Door.

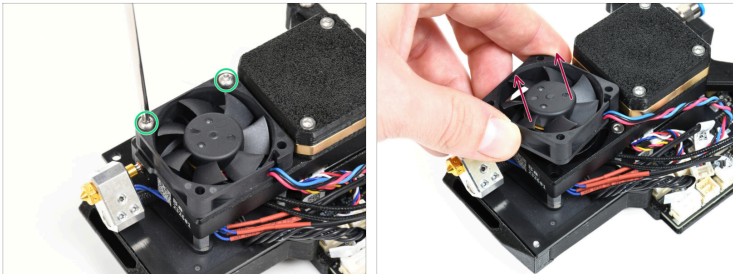
## PASO 10 Unplugging the hotend fan





 **Avoid cutting cables!**

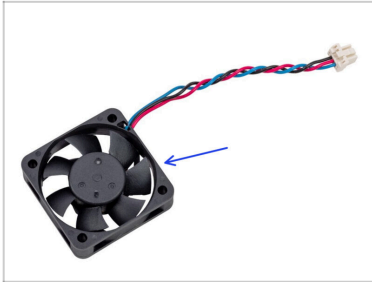
-  Cut the zip tie.
-  Unplug the hotend fan cable from the Dwarf board.

## PASO 11 Retirando el ventilador del hotend



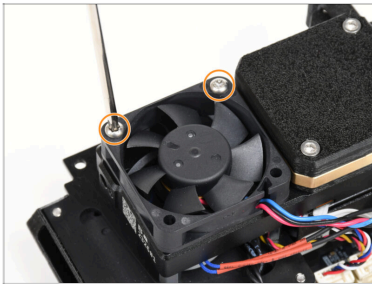
-  Loosen the hotend fan's two M3x18rT screws.
-  Remove the hotend fan from the heatsink and set it aside.

## PASO 12 Mounting the hotend fan - preparation



- Para los siguientes pasos, por favor prepara:
- Hotend fan (1x)

## PASO 13 Mounting the new hotend fan



- Attach the hotend fan to the heatsink, and tighten it with two M3x18rT screws.
- ⚠ Mind the orientation of the fan and the position of its cables.

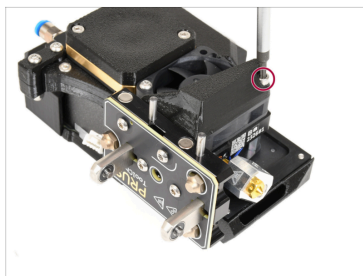
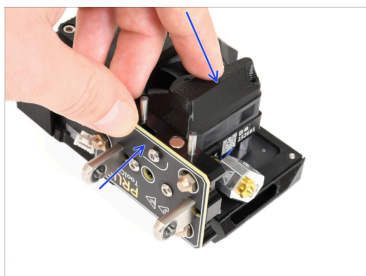
## PASO 14 Conectando los cables del Nextruder



- ◆ Plug the hotend fan cable into the Dwarf board.
- ◆ Secure all the cables except for the toolchanger cable with a zip tie.

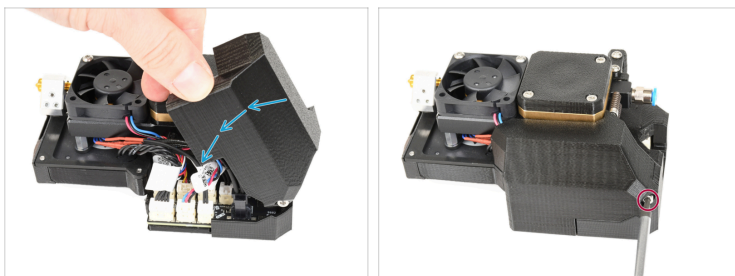
⚠ Be careful not to pinch any wires.

## PASO 15 Reattaching the toolchanger



- ◆ Attach the toolchanger board with the fan shield to the Nextruder.
- ◆ Secure the fan-shield with a M3x30 screw.

## PASO 16 Covering the Dwarf board



- Close the printed Dwarf board cover on the Extruder.
- Secure the Dwarf board cover with a M3x12 screw.

## PASO 17 Securing the toolchanger and the hotend



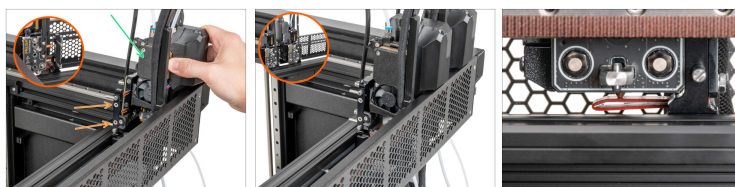
- Secure the toolchanger with two M3x8rt screws.
- Connect the toolchanger cable.

## PASO 18 Connecting the nextruder



- ◆ Insert the PTFE tube into the festo connector as far as possible. Slighty tug on the PTFE tube to make sure it's firmly secured.
- ◆ Plug the Dwarf extruder cable to the Dwarf board.
- ◆ Slide the black nylon plate onto the two M3x8rT screws in the Cheese board.
- ⚠ **Make sure the nylon plate is not twisted.**
- ◆ Aprieta los dos tornillos M3x8rT con una llave Torx T10.

## PASO 19 Docking the tool



- Gira con cuidado la impresora de modo que la parte frontal quede orientada hacia ti.
- Coge el Nextruder y colócalo con cuidado junto al dock.
- Coloca los dos pines metálicos a través de los orificios blancos del dock. Los imanes te ayudarán a acoplar el Nextruder.
- ⓘ Comprueba que el Sello de la boquilla toca ligeramente la boquilla.
- Enciende la impresora y ejecutra el Selftest.

## PASO 20 Well done!



- Good job, you made it!



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