

# Tabla de Contenido

<b>How to lubricate the magballs (HT90)</b> .....	3
Paso 1 - Introduction .....	4
Paso 2 - Tools necessary for this guide .....	4
Paso 3 - Additional tools .....	5
Paso 4 - Printer preparing .....	6
Paso 5 - Door opening stopper releasing .....	7
Paso 6 - Door opening stopper removing .....	7
Paso 7 - Lid opening .....	8
Paso 8 - Print head releasing .....	9
Paso 9 - Carbon rods removing .....	10
Paso 10 - Magballs cleaning .....	10
Paso 11 - Carbon rods cleaning .....	11
Paso 12 - Carbon rods lubricating .....	12
Paso 13 - Carbon rods attaching .....	13
Paso 14 - Print head attaching .....	14
Paso 15 - Lid closing .....	14
Paso 16 - Door opening stopper securing .....	15
Paso 17 - Printer connecting .....	15
Paso 18 - Well done! .....	16



# How to lubricate the magballs (HT90)



[help.prusa3d.com/g388445](https://help.prusa3d.com/g388445)

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



## PASO 1 Introduction



- ◆ This guide will take you through the **lubrication of the magballs** on the **Prusa Pro HT90**.
- ◆ The SuperLube lubricant is supplied with the printer. If you don't have it, you can purchase it from our eshop [prusa3d.com](http://prusa3d.com).

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## PASO 2 Tools necessary for this guide



- ◆ **For the following guide, please prepare:**
  - ◆ SuperLube (1x)
  - ◆ Pair of gloves (1x)

### PASO 3 Additional tools

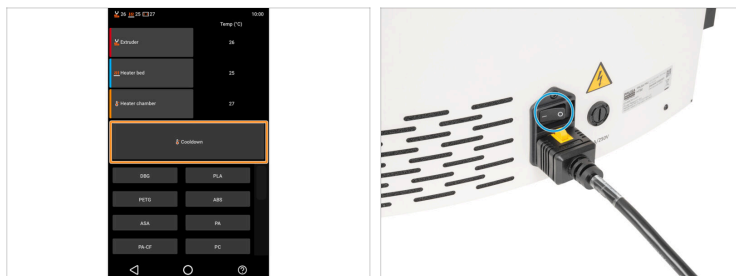


**(i)** Herramientas que no se suministran pero que pueden facilitar el mantenimiento.

**Additional tools:**

- Trozos de papel *para limpiar la grasa.*
- Trozo de tela *para proteger la base calefactable durante el montaje.*
- Flat screwdriver

## PASO 4 Printer preparing



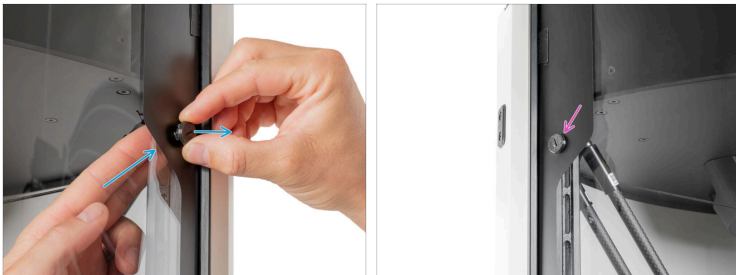
- Enfría la impresora. Ve a *More > Temperature > Cooldown*. Espera a que la impresora se enfríe.
- ⚠ Asegúrate de que la base calefactable se ha enfriado hasta la temperatura ambiente.
- Apaga el interruptor (símbolo "O").
- ⓘ From now on we will demonstrate the lubrication of the Magballs on the printer with the lights on for better visibility inside the printer. **Please note, do not switch ON the printer.** The printer in the pictures is shown with the lights on for better visualisation for customers.

## PASO 5 Door opening stopper releasing



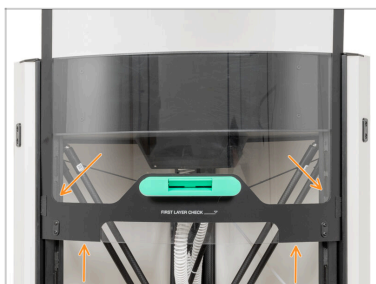
- Open the lid.
- Con un destornillador plano, afloja el Door-opening-stopper girándolo 120° en el sentido contrario a las agujas del reloj.
- ⓘ The Door-opening-stopper is a printed part, just a slight twist will loosen this part.

## PASO 6 Door opening stopper removing



- Remove the Door-opening-stopper by pushing from the inside of the printer.
- Repeat the process on the second Door-opening-stopper on the other side of the lid.

## PASO 7 Lid opening



- Slowly pull the lid up to the second step.

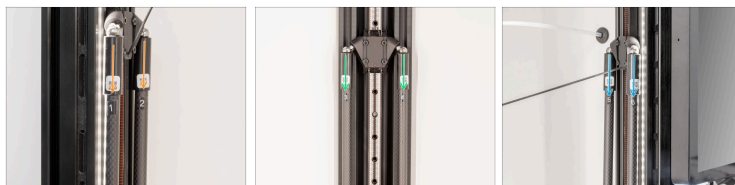


## PASO 8 Print head releasing



- Antes de continuar, te recomendamos que protejas la base calefactable.
- ⚠ **Asegúrate de que la base calefactable se ha enfriado a temperatura ambiente. Coloca el paño aproximadamente en la parte delantera central de la base calefactable.**
- Coloca el paño antipolvo aproximadamente en la parte delantera central de la base calefactable.
- Put the gloves on both your hands.
- Retira con cuidado la primera varilla de carbono de la bola magnética del cabezal de impresión tirando de ella.
- Retira todas las varillas de carbono restantes de las bolas magnéticas del cabezal de impresión.
- Deja el cabezal de impresión sobre el paño.

## PASO 9 Carbon rods removing



- i** Ten en cuenta que todas las varillas de carbono están numeradas.
- i** Las varillas están unidas a bolas magnéticas.
- o** Retira con cuidado las varillas de carbono 1 y 2 del carro izquierdo tirando de ellas.
- o** Retira con cuidado las varillas de carbono 3 y 4 del carro trasero tirando de ellas.
- o** Retira con cuidado las varillas de carbono 5 y 6 del carro derecho tirando de ellas.

## PASO 10 Magballs cleaning



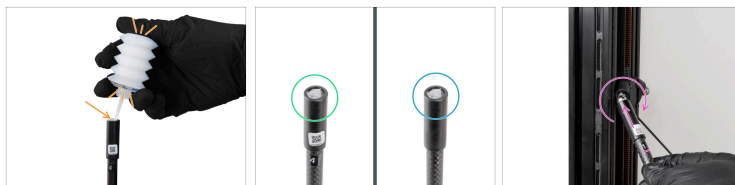
- o** Use a paper towel to clean the magballs on the print head.
- o** Use a paper towel to clean the magballs on the carriages.

## PASO 11 Carbon rods cleaning



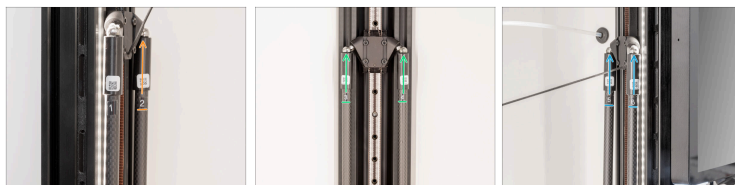
- ◆ Check the carbon rods one by one. If it's dirty, clean it.
- ◆ Use a paper towel to remove any old lubricant from the top and the bottom of the rod.
- ◆ The top and bottom of the carbon rod must be clean. Look at the picture.

## PASO 12 Carbon rods lubricating



- Open the SuperLube.
- Gently squeeze the lubricant and apply a small amount to the carbon rod:
  - To the top end (with the QR code).
  - To the bottom end.
- Repeat this process for the remaining carbon rods.
- Carefully attach the first carbon rod to the magball head and rotate the carbon rod a few times to spread the SuperLube.
- Wipe off excess lubricant from surrounding parts to avoid greasing the printing plate.

## PASO 13 Carbon rods attaching



- i** Ten en cuenta que todas las varillas de carbono están numeradas.
- !** Sigue el mismo orden numérico que en las instrucciones.
- Carefully attach the **second** carbon rod to the **rear** magball on the left carriage.
- Coloca con cuidado la **tercera** varilla de carbono en la bola magnética **izquierda** y la **cuarta** varilla de carbono en la bola magnética **derecha** del carro trasero.
- Coloca con cuidado la **quinta** varilla de carbono en la bola magnética **trasera** y la **sexta** varilla de carbono en la bola magnética **delantera** del carro derecho.
- Wipe off excess lubricant from surrounding parts to avoid greasing the printing plate.

## PASO 14 Print head attaching



- ◆ Fija las varillas de carbono una a una a las bolas magnéticas del cabezal de impresión.
- ◆ Coloca las varillas de carbono restantes (2-6).
- ⚠ Limpia el exceso de lubricante de las piezas circundantes con una toalla de papel para evitar engrasar la base de impresión.

## PASO 15 Lid closing



- ⚠ Before pulling down the lid, check that the plastic Door-guides on both sides are inserted into the rails. See the picture.
- ◆ Now slowly pull the lid downwards until the plastic cut-outs for the Door-opening-stopper are under the top panel. See the picture.

## PASO 16 Door opening stopper securing



- Using a flat screwdriver, secure the Door-opening-stopper by turning it clockwise.
- ⓘ The Door-opening-stopper is a printed part, just a slight twist will secure this part.
- Repeat this process on the left side of the lid.
- Close the lid

## PASO 17 Printer connecting



- Retira el paño antipolvo de la parte inferior.
- Enciende el interruptor (símbolo "I").

**PASO 18** Well done!



◆ Good job! The magballs are lubricated. Happy printing!



**Notes:**

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