

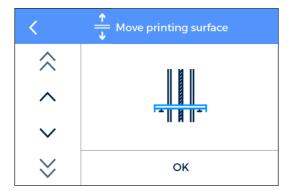
# **Technical manual**

How to lubricate and clean axes

Periodically, according to the Maintenance Alerts via LCD screen, it is recommended to clean and grease the axes of the Sigma with the lubrication kit to ensure smooth and precise performance of its mechanical components.

Follow these steps:

**1.** From the LCD screen, go to *Utilities* --> *Maintenance* --> *Move printing surface*. Lower the platform to the lowest position to work more comfortably. Then turn off the machine





2. With absorbent paper or a cloth, remove any trace of dirt or dust at the two Z shaft bars. Next, clean the shaft bars with the solvent pencil, making sure that it does not drip. Clean again the shaft bars with paper or a cloth.





**3.** Apply the lubricating oil pencil along the Z shaft bars, making sure that it does not drip.



**4.** Clean grease and dust from the Z-axis motor spindle with paper or a cloth. Turn the spindle manually to access its rear.

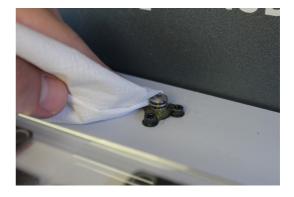


**5.** Apply the grease along the spindle of the Z-axis motor.



**6.** Turn on the Sigma and from the LCD screen, go to *Utilities --> Maintenance--> Move printing surface.* Raise and lower the platform twice to evenly distribute the oil and grease. Finally, remove the remnant grease.





**7.** Once the process for the Z axis is finished, let's clean and lubricate X and Y linear guides. First of all, turn off the Sigma. During this process it's recommended to manually move the axes in order to reach all the guide.





**8.** From the center towards the ends of the linear guides of the X and Y axes, remove dirt with an absorbent paper or a cloth.





**9.** Clean the guides with the solvent pencil, making sure that it does not drip with special emphasis on the superior and inferior faces.









**10.** Clean again the X and Y guides with an absorbent paper or a cloth.





**11.** Apply the lubricating oil pencil along the linear guides of the X and Y axes, with special emphasis on their superior and inferior faces. Make sure there is no excess oil dripping.





