Maintenance Guide

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Main

ACTIVITY	FREQUENCY	SOLUTIONS TO THE PROBLEMS	NECESSARY ACCESSORIES
Cleaning the machine, its interior and surroundings, especially the bottom plate under the platform	Before each printing process	To remove material remains from the interior of the device, use a vacuum cleaner or compressed air	– a vacuum cleaner, – cleaning products with a high evaporation rate
Cleaning the motherboard and the power supply unit from dust using compressed air	Every 300 working hours	Unscrew the bottom plate and use compressed air to remove dust	– a 2.5 Allen key – compressed air

Hotend

ACTIVITY	FREQUENCY
Checking if the hotend and the nozzle are not clogged	Before each printing process
Cleaning the nozzle	After finishing one spool of material
Checking if the screws that secure the heater and thermocouple are tightened	Every 300 working hours

Platform

ACTIVITY	FREQUENCY	SOLUTIONS TO THE PROBLEMS	NECESSARY ACCESSORIES
Cleaning the perforated plate	Before each printing process	To remove material remains from the surface of the perforated plate, use a spatula	– a spatula
Checking the perforated plate for deformation	Before each printing process	–	–
Calibration	Every 200 working hours	If the platform calibration fails, move on to the next step indicated in this table	–
Cleaning the heatbed and the underside of the perforated plate	Every 300 working hours	Unscrew the screws that secure the perforated plate and remove the residues from the underside of the plate using a spatula. The heatbed needs to be cleaned with a piece of cloth damped in acetone	– a spatula, – a piece of cloth, – acetone
Checking if the screws next to the platform’s small connector are tightened (in the back left corner of the perforated plate)	Every 200 working hours	–	– a 2.5 Allen key

X/Y Axes; Extruder Guide Rails

ACTIVITY	FREQUENCY	SOLUTIONS TO THE PROBLEMS	NECESSARY ACCESSORIES
Checking if the axes and the extruder guide rails are clean from material remains and dust	Before each printing process	It is possible to feel slight resistance while checking if the extruder moves freely on the guide rails. In such case you should check if the X/Y axes and the extruder guide rails are covered with black grime. The axes and guide rails should be cleaned with a cloth damped in acetone and then lubricated with silicone oil.	– silicone oil
Checking the tension of the drive belts on the X/Y axes	Every 300 working hours	In order to check the tension of the drive belts on the X/Y axes, move the extruder to the central point and gently tug the belts. If the belts are loosened, tighten the screws placed on the top part of the X/Y axes blocks	–
Checking the tension of the drive belts between the motors and the X/Y axes	Every 300 working hours	–	–
Checking if the screws on the X/Y axes and the motor pulleys are tightened	Every 300 working hours	–	–
Checking if the	Every 300 working	–	–

extruder moves freely when the printer is off	hours			
Lubricating the X/Y axes and the extruder guide rails	Every 300 working hours	–	–	teflon grease

Extruder

ACTIVITY	FREQUENCY
Checking if the extruder top cover and the material guide are properly installed	Before each start-up of the printer
Checking if the material guide is properly secured to the extruder cable with the material guide clamps	Before each start-up of the printer
If you use the HEPA Cover, check if it does not press the extruder cable	Before each start-up of the printer
Checking if the extruder cable is properly plugged into the extruder PCB	Every 300 working hours
Checking if the extruder PCB is properly secured to the extruder block	Every 300 working hours
Checking if the pins on the extruder cable connector are clean	Every 300 working hours
Checking if the screws that secure the hotend are not loose, and, if necessary, tightening them	Every 300 working hours
Removing the material remains and lumps from the extruder	Every 300 working hours
Checking if the fans are working	Every 300 working hours
Checking if the screws that secure fan shrouds on the extruder are tightened, and if it’s necessary, tighten them	Every 300 working hours

Z-axis

ACTIVITY	FREQUENCY
Lubricating the Z-axis screw and rails	Every 500 working hours

Suggested Part Replacement Time

The table shows approximate replacement time of components that are exposed to natural wear and tear. In order to maintain the printer in good condition and to provide the highest priting quality, it’s advisable to replace particular components after an appropriate period of time indicated in the table.

NOTE! The lifespan of particular components highly depends on the type of filaments you use most often.

Nozzle	Hotend	Perforated Plate	Extruder Cable	Heater and Thermocouple	Extruder Fans 40×40
Every 300 working hours	Every 400 working hours	Every 700 working hours	Every 500 working hours	Every 400 working hours	Every 500 working hours