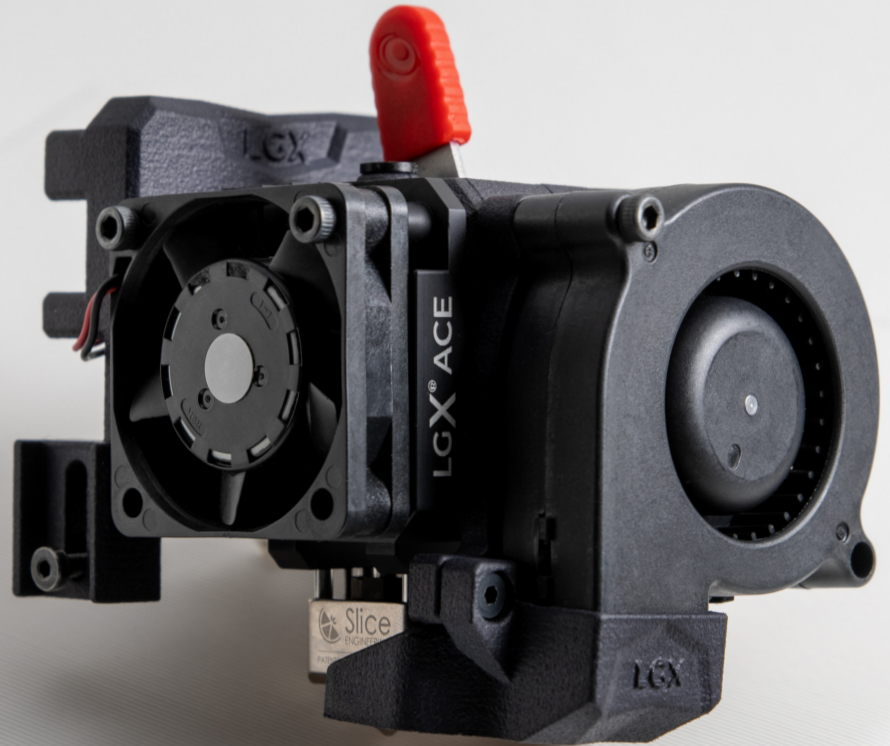


*QUICK START GUIDE*

## **LGX® ACE on the Elegoo Neptune 3 Pro**

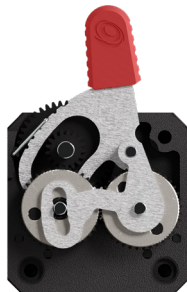
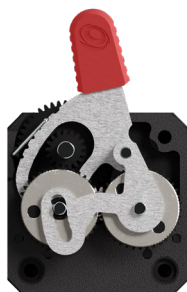
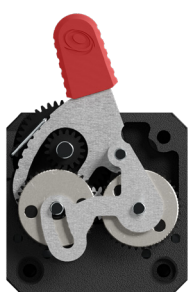
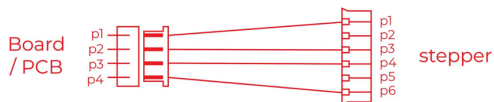


## CONNECTION

Do not connect a LGX® stepper motor to a printer's cable without checking the wires and pins of the connection cable. Not all printers are ready for a direct connection with the LGX®. Some use stepper drivers with no protection and this may damage them.

Before connecting a LGX® to any 3D printer check if the connector pins are wired as shown below:

After start of service, if the LGX® is turning in the wrong direction, swap the top (or bottom) pair of wires to make a correction:



### Position 0

Load or unload filament without pressure from the drivegears.

### Position 1

For rigid materials.

### Position 2

For semi-flexible materials

Shore hardness of ~95A or when you need more grip on rigid materials.

### Position 3

For flexible materials

Shore hardness between 85 and 95A.

### Position 4

For soft materials

Shore hardness between 75 and 85A.

### Position 5

For very soft materials

Shore hardness between 60 and 75A.

## MACHINE CONFIGURATION

For the LGX ACE to work on the Neptune 3 Pro you need to adjust a couple of settings regarding the extruder system.

### VREF

0.750 volts

This is measured between the driver trimpot and PSU ground. The factory value is 1.25 volts.

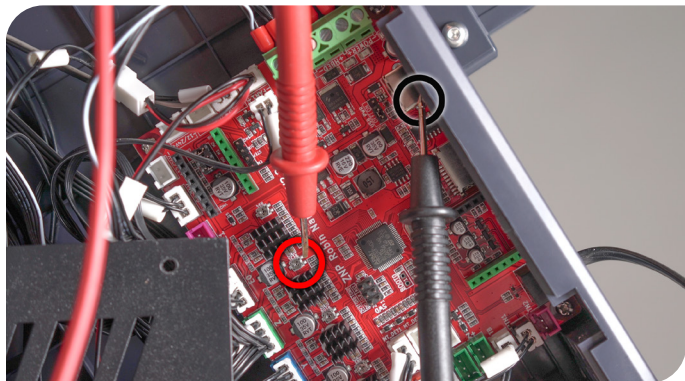
### E steps/mm

400

This is set by using the *Settings.gcode* file or with the following *gcode* sent in pronterface:

```
M92 E400 ; set esteps
```

```
M500 ; save esteps
```



Tuning the VREF

## KLIPPER CONFIGURATION

Below we have listed the common Klipper parameters for use with Creality Sonic pad or similar setups.

### rotation\_distance

8

This is set in your [extruder] section in your cfg in Klipper  
 rotation\_distance: 8  
 #gear\_ratio: #not used

## DOWNLOADS

We recommend using our tuned profiles for high quality and reliability.

You can download these profiles for PrusaSlicer here:

[LGX\\_ACE\\_Elegoo\\_PLA.ini.zip](#) PLA with LGX ACE

[LGX\\_ACE\\_Elegoo\\_FLEX.ini.zip](#) FLEX with LGX ACE

[lgx-16.gcode](#) For setting esteps

## RETRACTION SETTINGS

When using the factory profiles, change the retraction parameters. For larger nozzles than 0.40 mm you may need to add length to this.

**0.4mm nozzle** 35 mm/s, 0.5 mm length

**0.6mm nozzle** 35 mm/s, 0.7 mm length

## TAKE GOOD CARE OF IT

Every 6 months, or sooner if you have a higher than 15h per week average usage, perform the following maintenance operations:

1. With a tooth brush and alcohol:
  - a. Clean the needle bearings
2. With a fine brush and lubricant
  - a. Lubricate the needle bearings
3. With compressed air
  - a. Blow the housing plastic parts to remove dust and dirt particles

## HOW TO GET HELP

We are available to help you with any questions or issues you may have. Simply go to our website where you can access our customer support and send us your questions or follow the provided link:

[https://www.bondtech.se/contact/#tab\\_technical-support-requests](https://www.bondtech.se/contact/#tab_technical-support-requests)

