

K8400 Plotter



gsohler

[VIEW IN BROWSER](#)

updated 1. 8. 2023 | published 1. 8. 2023

Summary

You need: 1 Slider printed part 1 Holder printed part 1 Nail 4mm x 50 1 bearing LM6UU 1 axle 6mm, 75mm 2 screws M3x10...

[3D Printers](#) > [Accessories](#)

Tags: [plotter](#) [k8400](#) [marlin](#) [thingiverse](#)

You need:

- 1 Slider printed part
- 1 Holder printed part
- 1 Nail 4mm x 50
- 1 bearing LM6UU
- 1 axle 6mm, 75mm
- 2 screws M3x10 + washer
- 3 screws M3x4 to mount the spring
- 1 screw M3x8 to tighten the pencil
- 1 SG90 Mini servo
- 3 wired 130mm ribbon cable + pin connector
- 1mm wire(nail e.g.)
- 2 cable end sleeve 1.5mm
- 1 pressure spring OD10mm 18mm

Patch the Firmware:

You can get the firmware source code from the Vertex homepage at

<https://vertex3dprinter.eu/downloads/vertex-downloads/>

(choose for 1 or for 2 extruders)

In Configuration.h enable NUM_SERVOS and set it to 1

```
define NUM_SERVOS 1
```

In Pins.h set:

```
define SERVO0_PIN 53
```

Then use Arduino 1.6.0 to upload the program to your printer

Installing the Ribbon Cable

Uninstall the Display controller board and attach the 3 Ribbon Cable to the back of the socket where the cable from the motherboard connects

MINUS, PLUS, SS are pins, 2, 6, 16

Install back the Display controller . Then guide the Cable nicely to the Hotend :) :)

Preparing the Hardware:

- File the Head of the Nail to be almost half
- Cut it to a length of 50mm
- Thread the cable end sleeves to a helping wire and solder it onto the end of the spring
- Attach the lever to the servo and drill a 1mm hole into the end

Assembling the plotter

- Clean up the prints and support the holes with a drill. The diameters are 12mm, 4mm, 2.5mm
- Insert the Axle into the holder
- Insert the Nail into the Holder and glue it
- Insert the Servo into the holder and mount it.
- Insert the LM6UU into the slider
- Insert the M3x8 screw into the slider(will tighten the pencil)
- Put the Spring onto the glider and mount it with 3 screws
- Combine the Holder and the slider and attach the spring with the servo with a wire

Install the Plotter into the place of 2nd nozzle with the 2 screws and washers from the bottom.

Plug in the Servo and watch for correct polarity. (MINUS, PLUS, SIGNAL) its essential.

Testprogram:

G28 ; Auto-home

G0 X75 Y100 ; go to start of circle

G4 P100 ; wait until arrived

M280 P0 S60 ; lower pen

G2 X75 Y100 I50 J0 ; one full circle

G4 P100 ; wait until complete

M280 P0 S90 ; lift pen

M4 ; end of Program

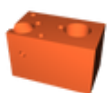
Look at this: <https://youtu.be/ijZioF61R2k>

Any kind of contributions are welcome!

Happy plotting

Category: 3D Printer Accessories

Model files



k8400_plotter_glider.stl



k8400_plotter_holder.stl

[Find source .stl files on Thingiverse.com](#)

License ©

This work is licensed under a
Creative Commons (4.0 International License)



Attribution

- ✗ | Sharing without ATTRIBUTION
- ✓ | Remix Culture allowed
- ✓ | Commercial Use
- ✓ | Free Cultural Works
- ✓ | Meets Open Definition