

## FreeABL nozzle prober for V6 hotend



the\_craft\_dude

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### Summary

Free ABL that uses the nozzle for probing the print bed. (3mf files can be opened in cura, for those who dont know the...

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Free ABL that uses the nozzle for probing the print bed.

This is more ment as a proff of concept, and it worked very well for me, since it does not require buying any specific new parts.

(3mf files can be opened in cura, for those who dont know the file format)

Works best on hard surfaces like glass.

this version is curenly mounted on my sunlu-s8, i havent tested the mount plate on any other printer, but it should work on a CR10 and Ender 3.

the bearings needed are

it is designed for the E3D V6 hotend.

2x Ø16mm (outer diameter), Ø5mm (inner diameter), 5mm thick (can be found in nema 17 stepper motors, mine is from a dead nema 17 stepper motor)

the arm can be mounted with a long m5 bolt.

for the switch, it uses a standard endstop switch with Ø3 holes, spaced out 9,5mm

the spring i used is a Ø7x15mm spring ( don't use strong springs, or you will damage your nozzle/hotend/carriage ) and a stiff mounted print bed, for best results

(please excuse my spelling errors, i'm dyslexic and i will go over everything once my autocorrect on my pc works again -\_- " ... )

watch these 2 videos for help with firmware changes for this

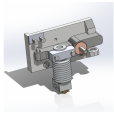
## Post-Printing

**what i entered in marlin 2.0.9.1 to get this to work for now:**

```
" #DEFINE Z_SAFE_HOMING_X_POINT 50 "  
" #DEFINE Z_SAFE_HOMING_Y_POINT 50 "  
" #IF ENABLED(AUTO_BED_LEVELING_BILINEAR) "  
" #DEFINE NOZZLE_AS_PROBE "  
" #DEFINE Z_AFTER_HOMING 5 "  
" #DEFINE BABYSTEPPING "  
" #DEFINE DOUBLECLICK_FOR_BABYSTEPPING "  
" #DEFINE BABYSTEP_ZPROBE_OFFSET "  
" #DEFINE BABYSTEP_ZPROBE_GFX_OVERLAY "
```

Category: 3D Printer Parts

**This remix is based on**



## FreeABL nozzle prober for V6 hotend

by The\_Craft\_Dude

### Model files



**mount\_plate.3mf**

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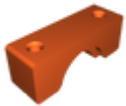
**arm\_with\_bearing.3mf**

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**endstop\_spacer.3mf**

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**v6\_clamp.3mf**

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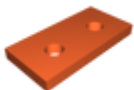
**mount\_plate.stl**

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**arm\_with\_bearing.stl**

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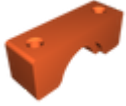
**endstop\_spacer.stl**

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arm\_without\_bearing\_hole.3mf

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v6\_clamp.stl

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arm\_without\_bearing\_hole.stl

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

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