

## Creality cooling + drag knife + EZ leveling



pixel2

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### Summary

Upgrade your cooling + drag knife + dial indicator mount. The 4010 fan swings out of the way when the dial indicator...



0.03 hrs



1 pcs



0.40 mm



0.40 mm



PLA



2 g



Creality  
CR-10 V2

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Tags: [thingiverse](#)

Upgrade your cooling + drag knife + dial indicator mount. The 4010 fan swings out of the way when the dial indicator is used or when you need to work on the hotend. This is made for the CR-10 but should work with Creality printers with the same X carriage. You can make a test fit template by stopping the print after 1mm of height.

What you need:

5015 fan

4010 fan

Dial indicator with a 8mm stem

3 M3 nuts and bolts

1 M4 nut and bolt for the 5015 fan

**\*WARNING\*** if your print bed is smaller than 300x300mm you will need to modify the gcode file before use!

Leveling the bed:

- heat the bed up to normal operating temperature

- swing the fan over and press fit the dial indicator into the mount

- run the included level.gcode

- after homing there is a 10 second pause for zeroing the indicator

- there is a 5 second pause at each corner for adjustment

- it goes around twice

- tweak the gcode to match your workflow

\*\*\*remove dial indicator and swing fan back before printing

This process levels the bed but does not set the correct distance between the nozzle and the bed. Test print to get the right height. Try using [thingiverse.com/thing:2425796](https://www.thingiverse.com/thing:2425796) for easy adjustment. Turn each knob an equal number of teeth to maintain a level bed.

Turn your 3D printer into a vinyl cutter for <\$15.

What you need:

1. Drag knife from [Amazon](#)/eBay search 'vinyl cutter blade holder Roland'
2. rubber band
3. screw and washer

Follow this tutorial: <https://www.instructables.com/id/Use-3D-Printer-As-a-Plottercutter/>

Additional notes:

- It's a good idea to smooth the bottom edge of the blade holder so it doesn't snag on cut parts

- The Inkscape extension needs strokes to create gcode. When saving, the error "no points" means you have no strokes [only fill]. Text needs to be

converted to paths. Make it easy to see the cuts by turning off fill and turning on strokes (set width to .1mm) for each object.

## Print Settings

### Notes:

.24 layer height [.4 nozzle]

4 top, 5 bottom

10 walls [perimeters]

0 infill

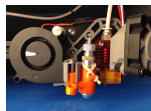
0 supports

The drag knife mount needs supports.

## Post-Printing

The hinge bolt should be tight. Use a nyloc nut or loctite to keep it from loosening.

## This remix is based on



**Creality cooling + drag knife + EZ leveling**

by pixel2

## Model files

**cooler\_frame2.stl**



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**dragmount.stl**



**40x40\_duct.stl**



**mount\_for\_spring.stl**



**spring.stl**



**large\_display\_dragmount\_157084.stl**

## Print files

**level.gcode**



🌀 PLA 🌀 0.40 mm ≡ 0.40 mm ⌚ 0.03 hrs ⚖️ 2 g

☐ Use this for calibration

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

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