



## Height adjustable table

T TED

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### Summary

It is a height adjustable table with basic dimensions of 225x200mm. The height can be adjusted from 115mm to ~ 200mm.

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### What is it?

It is a height adjustable table with basic dimensions (length x width) of 225x200mm. The height can be adjusted from 115mm to ~ 200mm with a crank.

The table is sized so that it can be printed on the most common printers such as Ender 3 or Prusa i3.

The tolerances of all printed parts (gears, bearing seats, threads, etc.) are optimized for 3D printing.

(Please make sure that your printer is calibrated reasonably well, otherwise you will have problems pressing in the bearings.)

The parts can of course be printed without any support material.

### Why print a table like this?

Let's be honest, the design with the bevel gears, the 3-gear-train and the threads, just looks cool :D Besides, it has proven to be surprisingly useful in my workshop (e.g. when you want to clamp something long in the vice and support it on the other side at a defined height).

### **What is needed?**

1. The 3D printed parts
2. Purchased roller bearings

(For more details, see attached PDF-File)

### **Cost:**

For the table you need about 500g filament. Costs about 10€

The roller bearings for the table are available on the internet for ~30 to 40€. They ensure that the height adjustment of the table can be done without audible noise and almost frictionless.

->The table can be produced for ~40 - 50€. I know, that's not exactly cheap, but why not print something that looks cool, attracts the attention of every visitor and can be useful in addition? :D

### **Print time:**

I have printed all parts on my RatRig V-Core 3-500 within 7h.  
Print time on an Ender3 or Prusa i3? I would estimate about 1 full day.

### **Recommended print settings:**

Nozzle diameter: 0.4mm (I printed everything with a 0.6mm nozzle, worked fine).

Layer height: 0.15mm (I printed with 0.2).

Material: PLA+ (Normal PLA or PETG will also work).

### **PS:**

If the Design is well received by some people, I will perhaps invest some additional time and design a second version of the table, based entirely on 3D printed parts, without purchased bearings.

**Attached is a PDF document to help assemble the table.**

**Have fun!**

-TED

# Model files



**sleeve-1x.stl**



**crank-1x.stl**



**circlip-shaft-4x.stl**



**crank-handle-1x.stl**



**bearing-carrier-loose-1x.stl**



**baseplate-1x.stl**



**retainer-2x.stl**



**circlip-bore-4x.stl**



**bearing-carrier-fixed-1x.stl**



**intermediate-gear-4x.stl**

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**threaded-cone-4x.stl**

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**pinion-gear-1x.stl**

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**bevel-gear-1x.stl**

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**tabletop-1x.stl**

## Other files



**assembly-instruction-height-adjustable-table.pdf**

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