



HyperCube XY Joiner for Toothed Pulley - 8mm



Plexi

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updated 12. 4. 2022 | published 14. 2. 2022

Summary

There are quite of few remixes of the HyperCube XY Joiner but I couldn't find one with the following features: Dual...

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There are quite of few remixes of the HyperCube XY Joiner but I couldn't find one with the following features:

- Dual LM8UU Bearings (also IGUS RJUM-01-08 Bearings 2-3-2018)
- 8 mm X axis, 8 mm bearing Y axis
- Toothed Pulley mounts
- Integrated nut pockets
- 2-6-2018 - I added a design for IGUS RJUM-01-08 Bearings & 10 mm X axis bearing rods

I decided to try toothed pulleys because I noticed some faint lines at 2 mm spacing on the flat sides of my prints. I suspected that these lines are artifacts of the belt riding across the unsupported ridges as it turns on the smooth pulleys. The toothed pulleys do eliminate the faint lines. You may also twist the belts and use the stock back to back bearings to avoid the lines.

This is a remix of the original HyperCube XY Joiner and another XY Joiner with the dual bearing mounts for the Y axis. Both original designs are credited The bearing pockets will take 2 LM8UU bearings exactly or one LM8LUU bearing with 4 mm to spare.

This XY Joiner works well with this toothed idler: <http://www.thingiverse.com/thing:2186358>

BOM:

4pcs. LM8UU Bearings or 2pcs LM8LUU Bearings

8pcs. M3 x 18mm Socket Cap Bolts

8pcs. M3 x 16mm Socket Cap Bolts

16pcs. M3 Hex Nuts regular or Nyloc

2pcs. 16T Aluminum Timing Drive Pulley

2pcs. 16T GT2 Aluminum Timing Drive Pulley

Be sure to print with supports.

One source for the pulleys: <https://www.amazon.com> and then search for "B01BTTEQU0" <https://www.amazon.com> and then search for "B01BTTERC2"

Quality may vary so check reviews from wherever you order the pulleys.

Here's my HyperCube: <https://www.thingiverse.com/make:272257>

UPDATE 2-6-2018: I have added two versions of the XY joiner and bearing cap for the IGUS RJUM-01-08 which is a 16 mm in diameter and 25 mm long bearing (8 mm bearing shaft). One version is for 8 mm X axis and the other is for 10 mm X axis. The bearing pockets for the Y axis fit the 16 mm diameter 25 mm long IGUS bearings. These designs have not been printed or tested so let me know if they work.

UPDATE 3-11-2018: There was a problem with the IGUS version where the bottom 2 layers did not touch the build surface Version 2 of each solves this problem.

Print Settings

Printer:

HyperCube

Rafts:

No

Supports:

Yes

Resolution:

0.1mm

Infill:

50%

Notes:

print two joiners and two bearing caps
I printed in ABS

235C

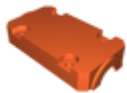
I used supports which are necessary and I printed in the orientation of the STL files. You can print in other orientations particularly the bearing caps which can be printed upside down.

Category: 3D Printer Parts

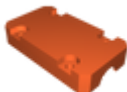
Model files



xy_joiner_for_igus_16_25_10mmx_v2.stl



xy_joiner_bearing_cap_for_igus_16_25.stl



xy_joiner_bearingcap.stl



xy_joiner_toothedpulley_lm8luu.stl



xy_joiner_for_igus_16_25_v2.stl

Other files



sources.txt

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

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