

# COMBINATION CUBES

All in one building block and fidget

# PROJECT REQUIREMENTS

3D model

2D drawings

Cost analysis

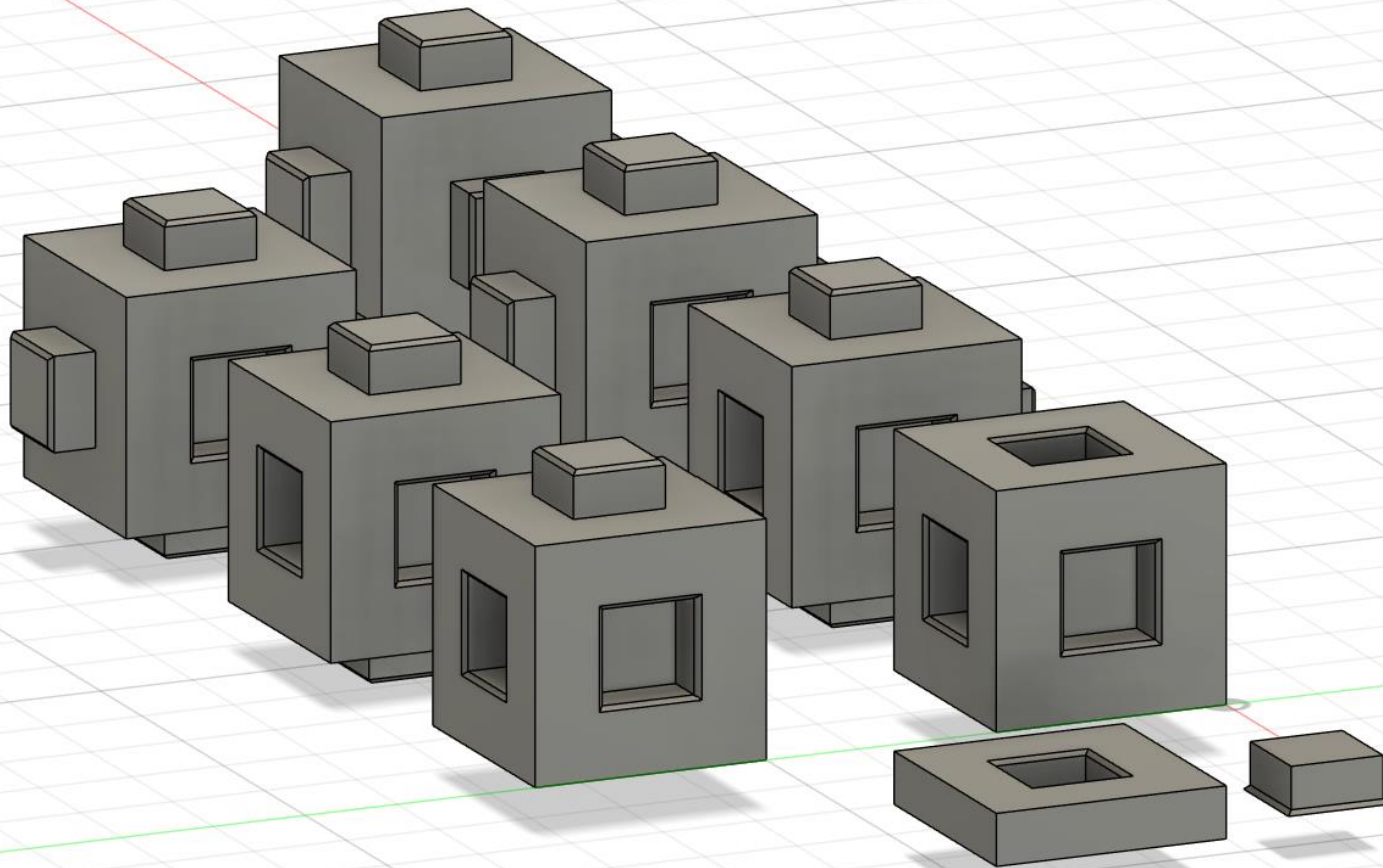
Description



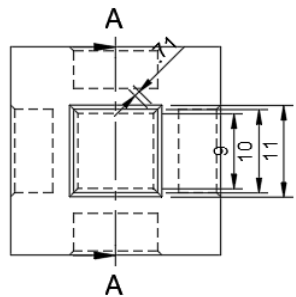
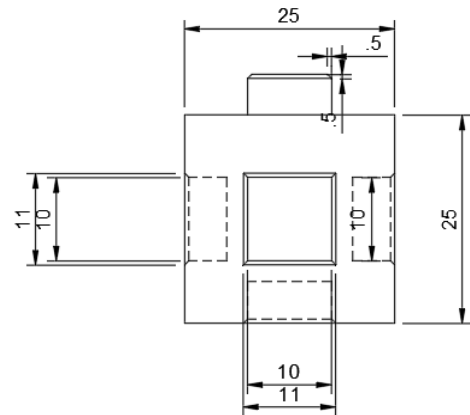
# ALL MODELS



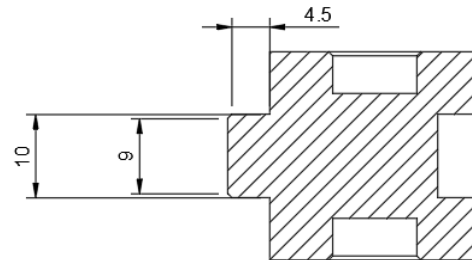
All models are shown here the most likely good product is just the one stub version though an expansion pack can include all 9 of the different parts.



# DIMENSIONS



A-A (2:1)



|  |  |                                   |     |
|--|--|-----------------------------------|-----|
|  |  | liam mathews 7/27/2026            |     |
|  |  | VOLT final project: toy block set |     |
|  |  |                                   | 1/1 |

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# COSTS

→ xometry.com/quoting/quote/Q18-5862-3785/6a61231464103b0f6e095887?initialTab=Configure

New Customers Save Up to 50%: Prices as marked. Max discount \$1,000.

Xometry Dashboard Quotes Orders My Account Start a New Quote

Quote Q18-5862-3785 / Configure

Body10.stl V0 Revise CAD Configure Analyze Upload Drawings Cancel Save Configuration

Body10.stl Primary File

Click to move model

30,000 mm × 25,000 mm × 25,000 mm | 1.181 in × 0.984 in × 0.984 in | 0.830 in³

Fused Deposition Modeling (FDM)

Material

Learn about our materials

ABS

Color

Ivory

Infill

Learn about Infill

UltraLight

Price and Lead Time

Least Expensive

Lead time: 7 business days

\$64.00

\$84.30 (Save \$20.30)

Standard

Lead time: 3 business days

\$336.50

\$443.21 (Save \$106.71)

Fastest

Lead time: 1 business day

\$839.00

\$1,105.23 (Save \$266.23)

Save your configuration to select a lead time. Shipping and tariffs might increase cost.



# COSTS

The cost to print all 50 units would be about 64\$ total to print. When researching different materials PLA was not the cheapest option which is why I didn't choose it. It was about 40\$ more expensive for 50 units. the cheapest print material is ABS which would be the most realistic to use for a product.

# **COST BREAKDOWN**

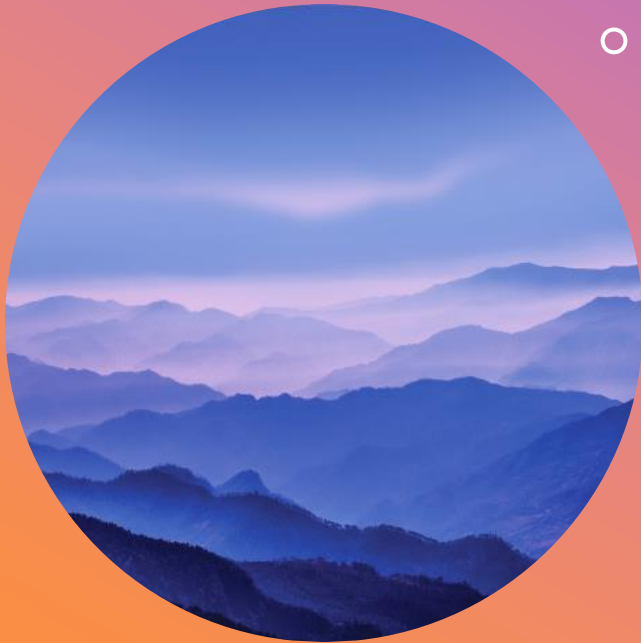
- Labor  $25\$ \times 2 \text{ hours} = 50\$$
- Printing and shipping 64\$
- Total production cost 114\$
- 50% profit margin addition 57\$
- 50 Unit total price 171\$
- Price per unit 3.42\$



# DESCRIPTION

The combination cubes are a product designed to be used by anyone 5 or older. They can be used as both a fidget and as cubes to build with. They are created to be larger to be able to be easily put together by younger children while also being satisfying to snap together and break apart. The goal retail price would be 10\$ for 8 though prototypes would be more expensive due to the limitations of the cost of small scale 3d printing. If it was able to be sold it would probably be packaged into a cube for simple storage as 8 of them could be connected into a 2x2x2 and not have any stubs sticking out.

# THANK YOU



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