CLAY EXTRUDER, Prototype V 1.0

A list of materials and Blueprints of the simple robust full-metal clay extruder for 3D printing. It is designed from standard components to be easily build with minimal set of tools. The only custom part is an aluminum bracket that should be adopted to the printer design.

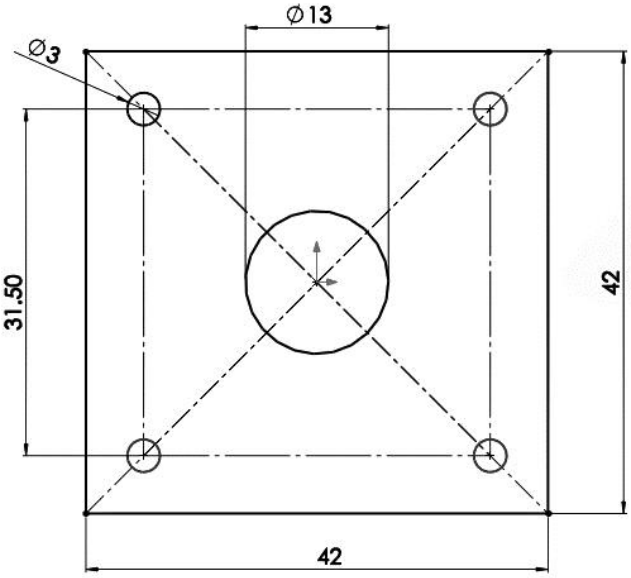
	2Phase 4-wire Nema17, Stepper Motor 0.9-1.68A, step angle 1.8°, inductance per phase ≤ 2.8mH
	Screw PCB Standoffs Hexagonal Spacers M3 Male x M3 Female, 40mm
	5x8mm Shaft Coupling Stepper Motor Coupler Connector for 3D Printer DIY Aluminum
	Tee Shaped 3 Way Male Fitting 1/4”, NPT brass/stainless steel

1/2" Male x 1/4" Female NPT Pipe reducer Hex Bushing adapter Brass Fitting
brass/stainless steel

Hose-barb Fitting Adapter 1/4", 3mm

Nut 1/4"
brass

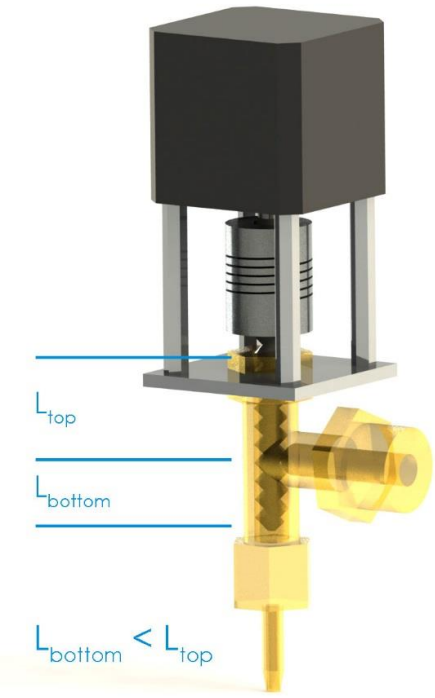
M8 Tap Bolts Hexagonal Self-tapping Screws Wood Screws 304 Stainless steel



Customized 3mm thick aluminum bracket

Note:

To escape leakage of the clay through the upper end of Tee Shaped Fitting (close to the coupling), the length of the thread in the bottom branch of the of that fitting should be shorter than in the upper part, as shown below. If it is not the case, one should shorten the screw or extend the upper part of the Tee Shaped Fitting.



Feed pipe can be connected to the extruder via different types of connectors, compatible with 1/4” or 1/2" thread.