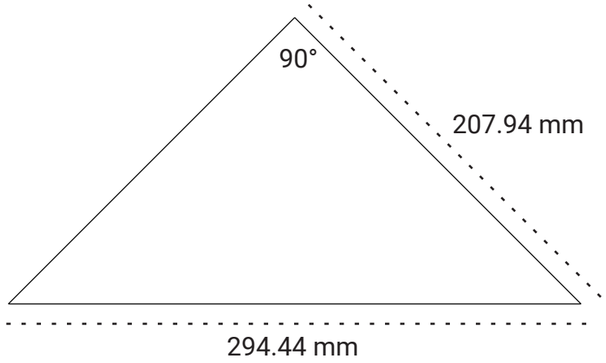
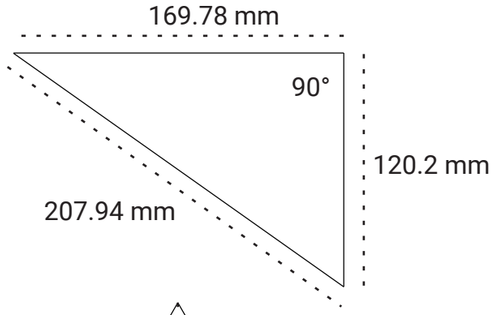
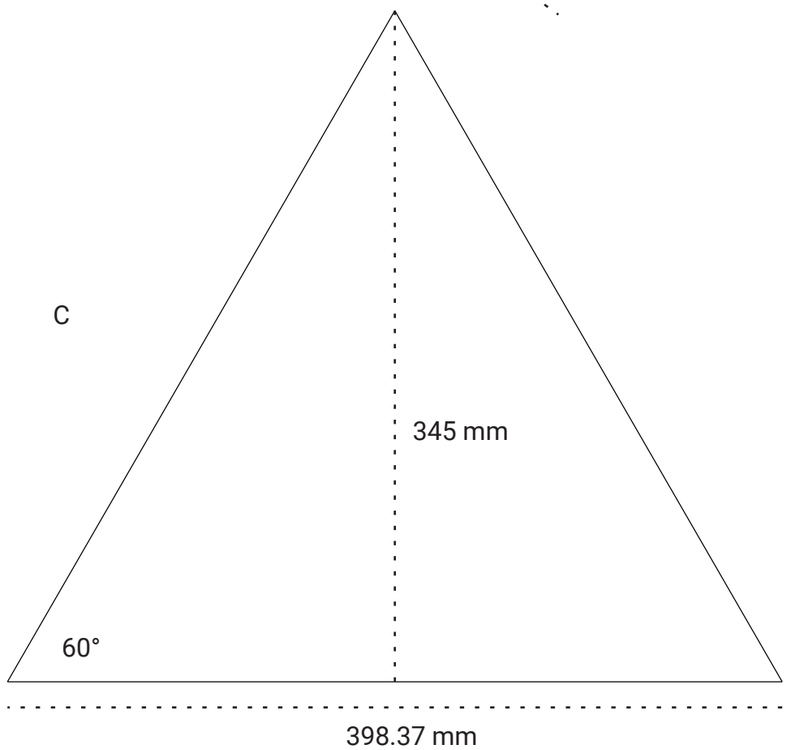
A



B

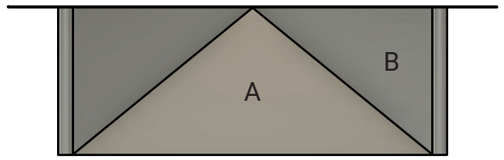


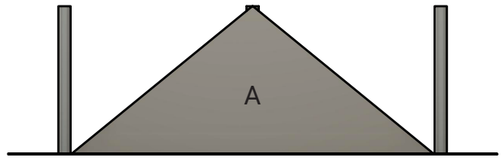
C

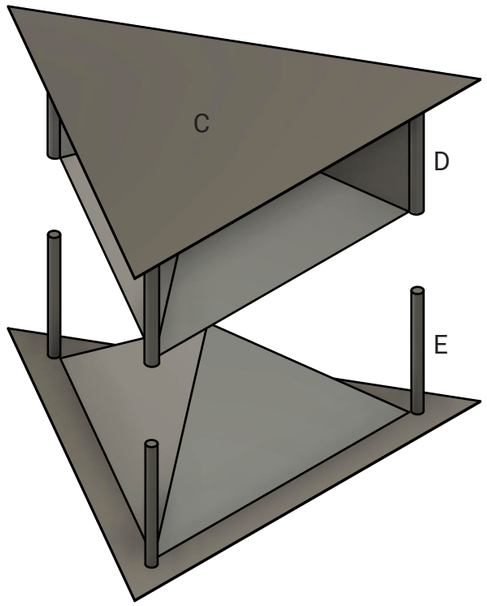


D 12 mm steel tube 120 mm long

E 10 mm steel round bar 120 mm long







Parts List:

6 x A 3 x B 2 x C 3 x D 3 x E	For aligning the pieces use the 3D printable jig from the “Instructable” and a magnetic welding square. Simple steel sheets 0.5 or 1 mm thickness will work. Cut them slightly too large with an angle grinder and sand them to size on a belt sander. Print out the paper templates to get the angles right. Weld it all together. Having it built by a professional metalworker is also possible with the provided plans.

corner.mould

A cookbook for hot pressing thermoplastics.

Recycling thermoplastics is a well known but most often complex process. Collecting, sorting, cleaning, shredding and finally extruding, injection moulding, casting or rotation moulding, etc. All of this could be done at home, except the forming process because it requires specialised machinery. This little guide offers a low tech solution for home made recycling. A simple press mould, made from steel, enables it’s users to produce basic shapes from household garbage. Literally any thermoplastic material will work as long as it is collected separately and heated to the right temperature. This guide tries to convey the idea, that thermoplastics are an amazing and precious material that should never end up in a landfill - or worse: in the ocean.

step by step instructions:

1. collect

Thermo plastics are literally everywhere. Just find a convenient source like household or commercial garbage and get as much as you need. The cleaner the better. If you can find a lot of similar objects - that’s good. Then sorting will be easy.

2. sort

Most plastic objects have a symbol with the material classification stamped on them. Sort it all and try not to mix materials because this will result in low quality products. So be careful.

3. prepare

Clean everything: the material you want to melt and the mould. Vegetable oil can be used as a release agent. Grease the inside of both half of the mould with it. Break down the plastic objects in smaller pieces to put them in the mould.

4. melt

Heat your kitchen oven to approx. 240 °C for PET, PE, PC, ABS, PS and to approx. 210 °C for PLA, PP. Temperatures can be altered but don’t exceed 250 °C to avoid dangerous fumes. Open the window and put the negative part of the mould, filled with material, in the oven.

5. press

When the material is molten evenly, bring the mould to a well ventilated area and press in the positive part of the mould by hand. Kneeing on it with all your weight helps. After cooling down for 15 minutes release the part from the mould and start again.

The corner brackets shown here are just a product example. With more advanced moulds all kinds of shapes can be pressed. These corner brackets could be used to assemble a bench, a table or a shelf using only construction wood, plywood, nuts and bolts.