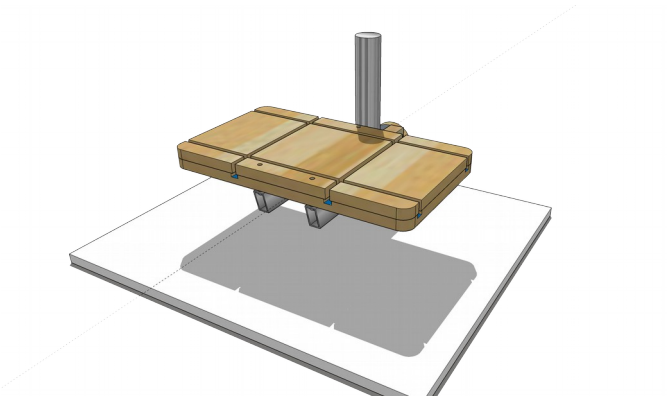
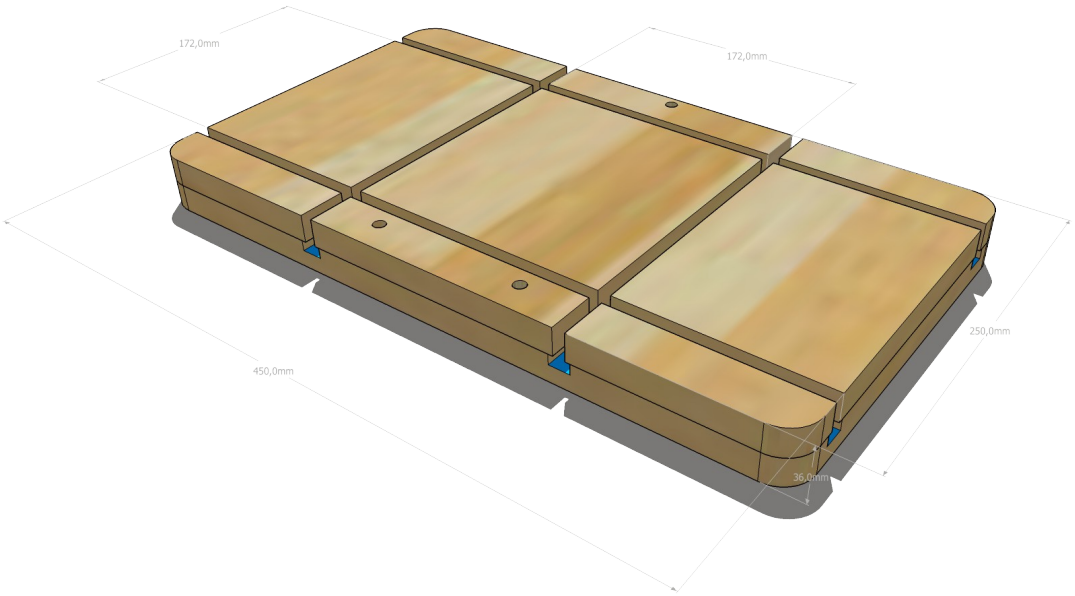
Drill Press Table

Description:	I like to apply engineering concept to the ancient art of woodworking. Here I used a tribrach, a 3 (sometimes 4) screws simple mechanism used in high precision topography instruments like theodolites or total stations. It's designed to keep the surface always leveled. I used it to keep may new drill press table leveled and perfectly perpendicular to the drill bit. After all, if you can't make it perfect, make it adjustable :) It's a fairly simple mechanism, one can build it using recovered materials and a couple of hours of spare time.
Video instructions:	https://youtu.be/jcV4Al872hQ
Date of release:	2018-03-26
Materials:	18mm Plywood 2 x M6x50 bolts, washers and nuts 1 x M10x70 bolt 2 x M10x40 bolts 8 x M10 nuts 4 x M10 washers 1 x 20x40mm iron bar 4x40 wood screws



1 Drill Press Table

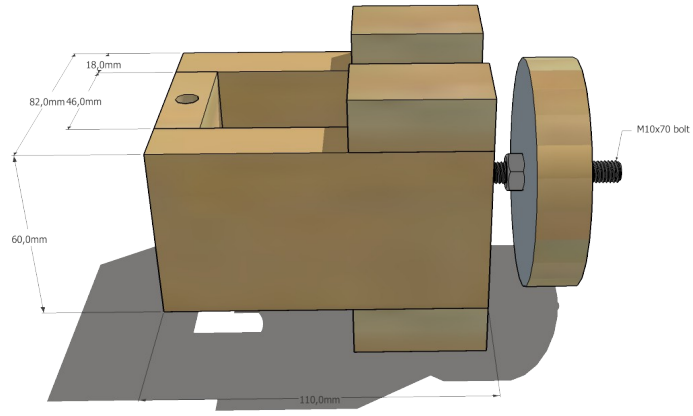


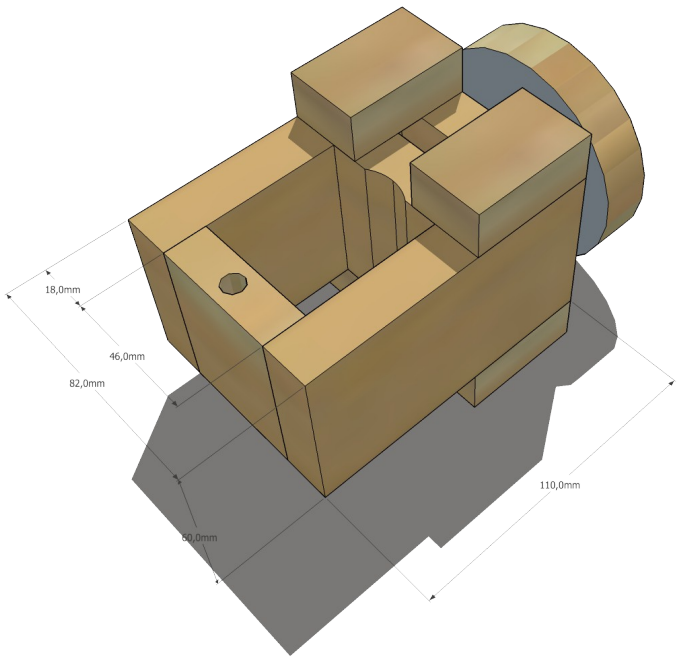
This structure is made by 2 layer of 18mm plywood, glued together. This guarantees rigidity, even when the piece to be drill is heavy or large.

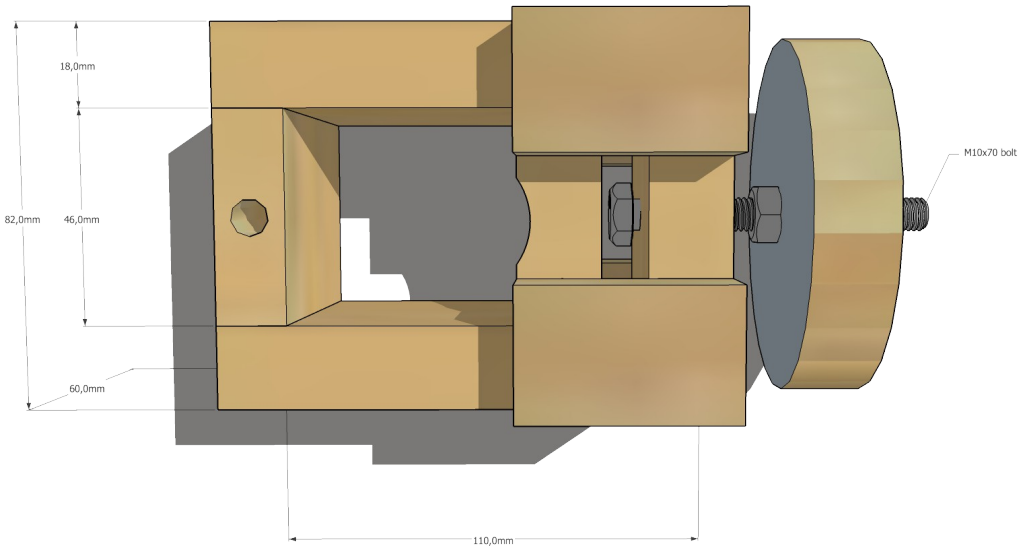
The dimension of the table may vary according to your drill press, the available space in your shop, your desires, …

The cuts allows 2 x M6 screws to move back and forth. The distance between 2 cuts may vary, but should be the same in both of the two directions, in order to allow the fence to be used in both ways.

2 Lock Mechanism







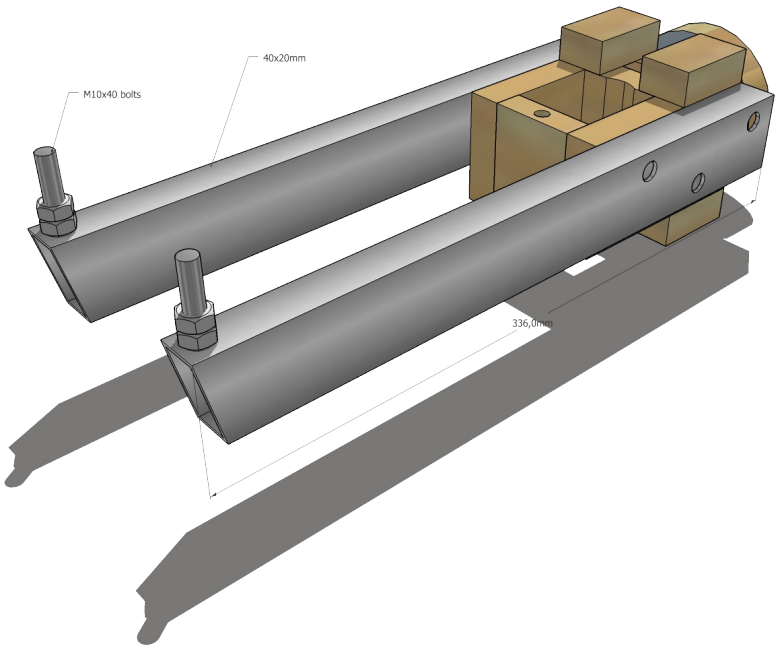
The lock mechanism keeps the whole table attached to the drill stand. Standard pipe is 46mm, but it may vary, and lock mechanism dimensions should be vary accordingly.

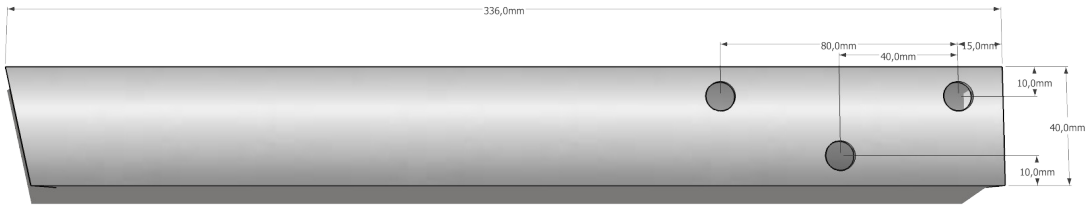
The internal plate that will push on the drill stand piping is rounded, for better grip.

On top and on the bottom of the mechanism, 4 small pieces of plywood keeps the pushing plate in position.

A circular handle is used to move the M10 long screw that, pushing on the push plate, will lock the mechanism onto the drill piping.

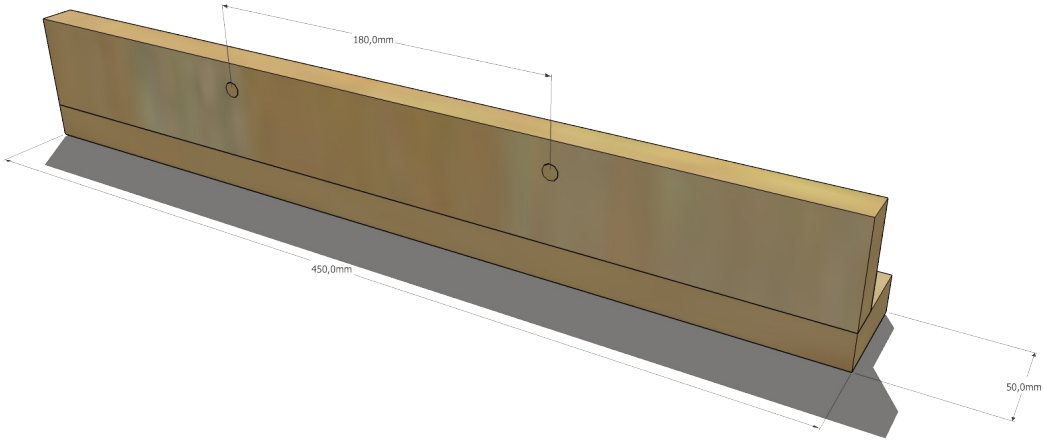
3 Spokes

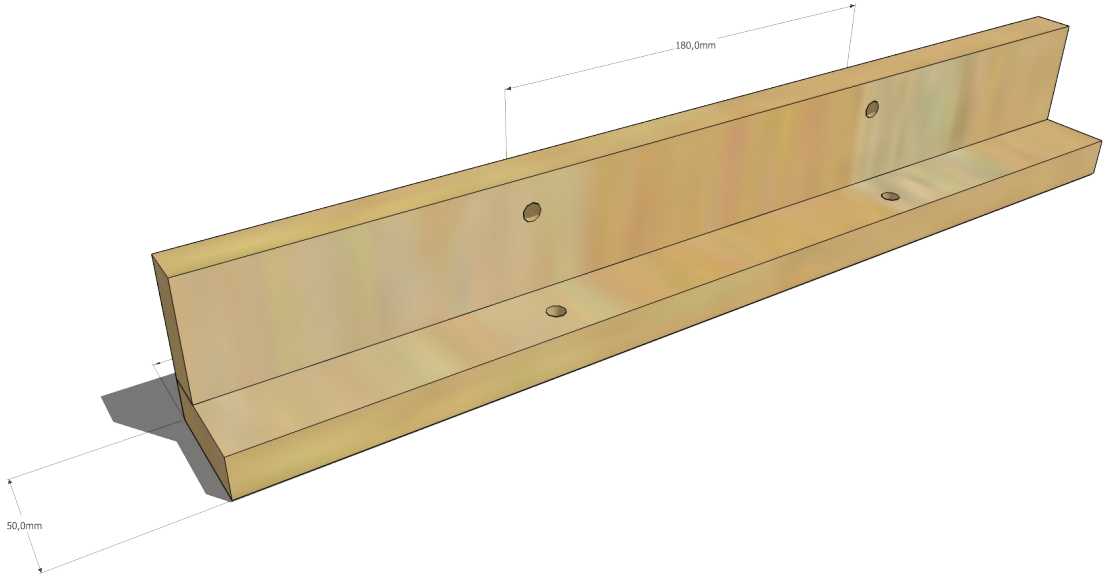




Two spokes will hold 2 of the 3 tribrach screws. The will need to be firmly attached to the lock mechanism.

4 Fence





The fence is a simple join of two 18mm plywood pieces.

The interaxle spacing between holes should vary if you vary the table sizing.