

Fret to Fretboard Jig

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Jig Design

The purpose of the fret to fretboard jig is to ensure that the frets are properly adhered to the fretboard. Since the frets are tangless, they must be glued with epoxy to the fretboard, and pressure must be applied evenly throughout the board so that all the frets will stay once the epoxy has finished curing. The jig designed is meant to facilitate this process and is based on the design shown in the video on the vjwiki website. It consists of a bottom half and top half; the bottom half is meant to hold the frets and fretboard while the top half is meant to press down on the board. Figure 1 shows the assembled jig.

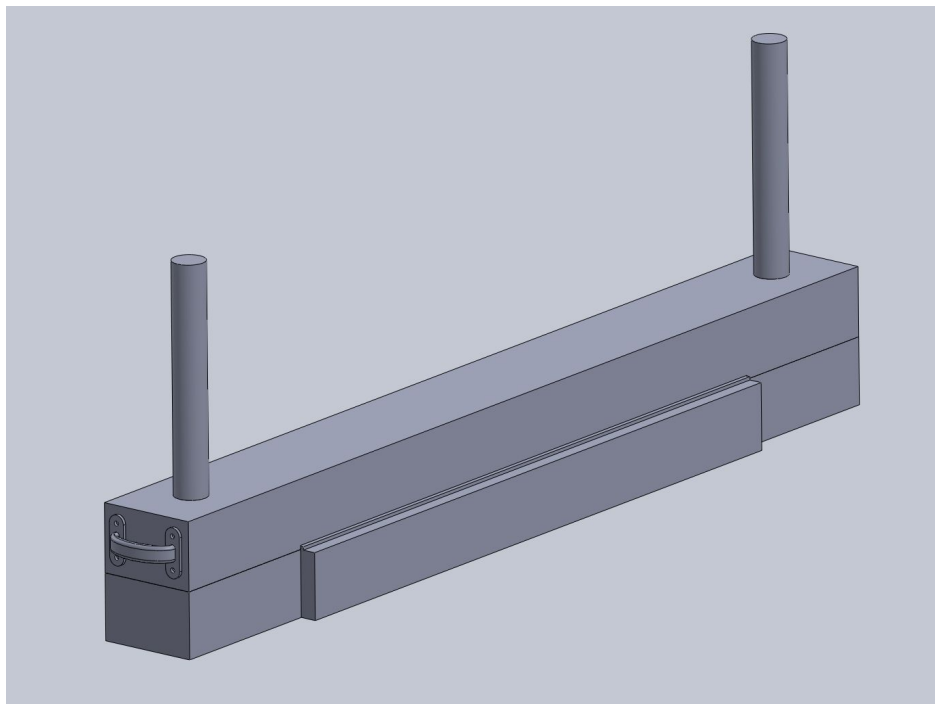


Figure 1 - Fully Assembled Fret to Fretboard Jig

The bottom half of the jig is designed for use with oversized frets; the frets can be trimmed after they are adhered to the board. The two rods on either side of the bottom half are meant to act as both handles and pegs for the top half of the jig to slot through. The section between the two rods on the jig has grooves at the proper distance for a fretboard with twenty four 6105 frets, and the whole section is indented by the radius of the fretboard. There are also two slight overhangs on either side of this section of the jig to help keep the frets in place. The bottom half of the jig is depicted in Figure 2. The top half of the jig simply has two handles on either side, two holes to slot through the rods on the bottom half of the jig, and a bottom contoured to the radius of the fretboard.

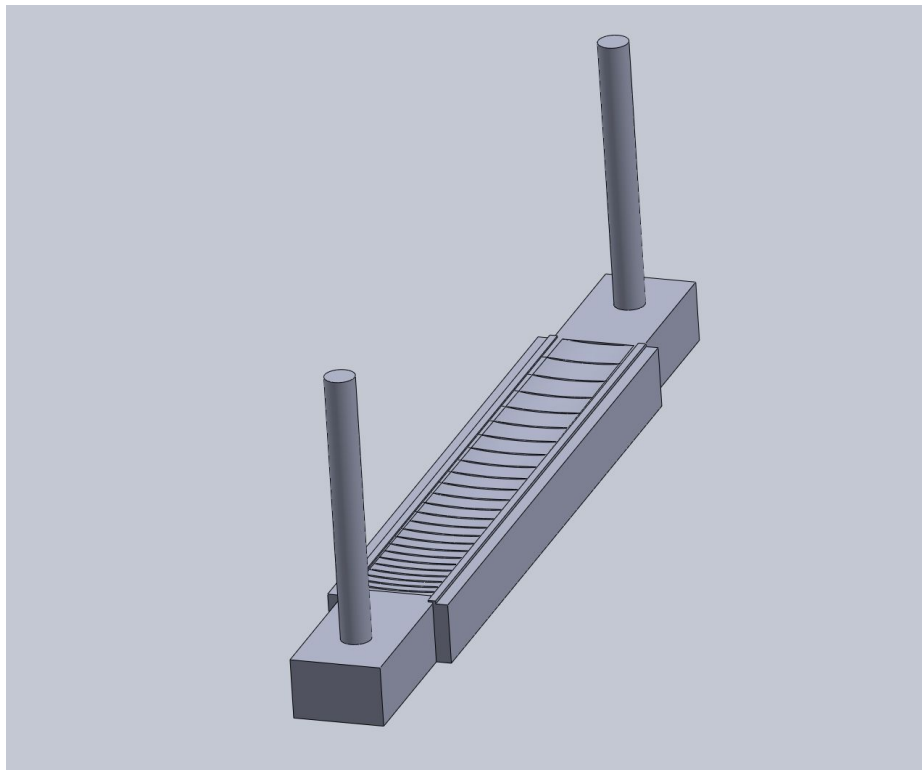


Figure 2 - Bottom Half of the Fret to Fretboard Jig

Modifications can be made to the jig to improve the design as well. Currently, the rounded part of the top half of the jig could be smoothed better than it currently is, as at present it is fairly jagged. Additionally, the two side parts with the overhang depicted in Figure 2 can be modified to be removable to allow for easier removal of the fretboard when it's done being glued. This could work in tandem with a modification made to the section where the frets are placed. Instead of only being able to work with a single number and size of fret, the middle section could be made into a slot system where different plates could slot into the jig. These plates would have grooves for different sizes and number of frets.

Jig Workflow

Once the frets have been cut, sanded, and bent to the proper radius, they may be slotted into the grooves in the bottom half of the jig with their bottom side facing up. Epoxy is then added to the bottoms of the frets while activator is added to the slots in the fretboard, which has already been radiused with fret slots cut into it. The fretboard is then flipped upside down and placed onto the bottom half of the jig so that the fret slots of the board are pressing into the frets. The top half of the board is then placed over the bottom half, slotting through the rods. Clamps are then used to keep the two halves of the jig pressed together while the glue sets. Once the glue has set, the clamps and top half of the jig can be removed, and the fretboard can be removed.

Information Citation:

1. https://vjmedia.wpi.edu/Private:Fly_Clone#Fret-to-Fretboard_Jig_.5BIN-DEVELOPME
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