

MightyWatt R3 case assembly instructions

For board revisions: 3.0 and higher
Guide revision: A (2017-03-25)

Assembly

- 1) Remove the protective plastic film from both sides of each acrylic layer.
- 2) Take the bottom solid layer and put the spacer layer on top of it (Figure 1). Put Arduino Uno R3 or Arduino Zero (M0/M0 Pro) on top of the spacer layer and fasten it to both layers using three M3×10 screws. One of the fixing places cannot be used because Arduino board does not have enough space for the screw head.
- 3) Put MightyWatt R3 on the Arduino, it is easier to attach it now than it will be when the case is assembled.
- 4) Take the four M3×40 screws, put them upside down (heads facing the bench) into the four corner holes. This will keep the layers properly aligned. The screws will be eventually turned heads up.
- 5) Start stacking layers (Figure 2): First, the five layers with cutout for USB. Then the two layers with solid outlines and finally, the three layers with cutout for terminal.
- 6) Carefully take out one of the screws, turn it heads up and put it back into its hole. Fasten with nut. Repeat with the three other screws.
- 7) Put the four rubber bumpers on the bottom layer, preferably close to corners for best stability.
- 8) Enjoy!

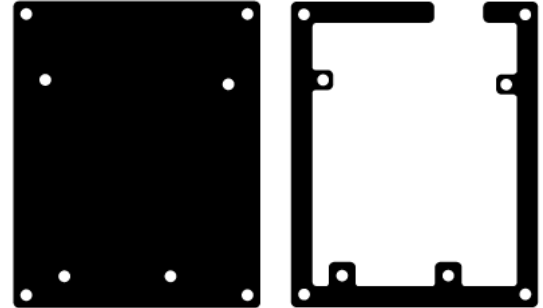


Figure 1: Bottom layer (left) and spacer layer (right).

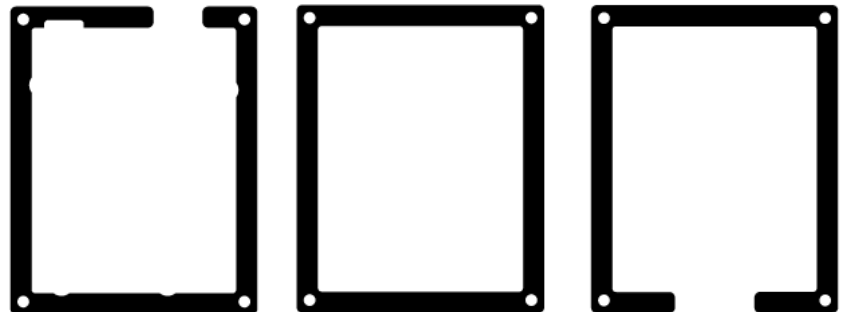


Figure 2: USB cutout layer (left), solid outline layer (centre) and terminal cutout layer (right).

Material info

Layers: Laser cut 3mm transparent poly(methyl methacrylate).

Screws: Nylon 66, Phillips head, metric thread (ISO 7045), M3×10; A2 stainless steel, Phillips head, metric thread (ISO 7045), M3×40.

Nuts: Nylon 66, metric thread (ISO 7045), hexagonal M3; A2 stainless steel, metric thread (ISO 7045), hexagonal M3.

Bumpers: Clear polyurethane, 60–70 Shore (Durometer A). Rubber adhesive.