

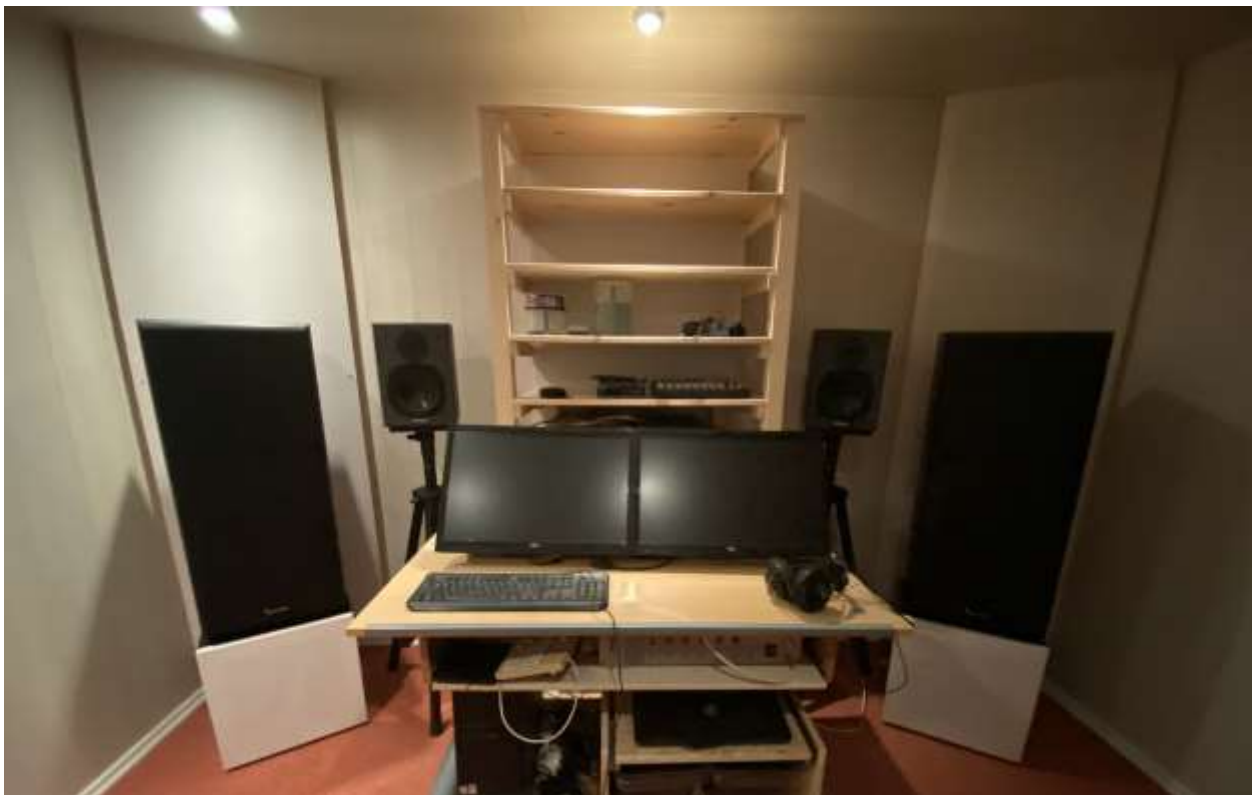
Construction guide for room corner bass traps

To optimize the sound of my studio, I built room corner bass traps. I was looking for a solution that was as cheap as possible and produced as little waste as possible. Of course, I'm not a professional in this field, but the spatial sound has changed a lot for the better. Bass tones now have a defined end where previously only an indistinct decrease could be heard. For me personally, this is completely sufficient as a quality criterion and I can warmly recommend this measure.

The following materials were used:

- | | |
|--|------|
| • 2 packs of Sonorock (Rock-Wool) 1000 + 625 mm, 80 mm thickness | 35 € |
| • 10 roof battens 24x48, rough, 2m long | 10 € |
| • 1 OSB (wood or MDF) plate 680 x 550 mm | 5 € |
| • Thin bin-liners | 3 € |
| • 5m adhesive tape (transparent, thin) | 1 € |
| • 5 m ² white fabric, a little elastic, 170 g/m ² , (Ebay) | 10 € |
| • 4 small, 90° brackets + screws for wood | 4 € |

In summary that is: **68 €** Material and about **8h** of work to receive the following result::



... of course, only the two modules in the corners of the room are meant 😊

That's how it works:

1. Step: Cut the absorption material:

The individual Rock-Wool panels are cut into 8 pieces each, so that there is no waste. This results in an angle of approx. 35° between the absorber and the rear wall:



Caution: wear a mask and gloves! The pieces must be cut as precisely as possible with a large bread knife and a slat so that they all have the same size.

2. Step: Packing the absorption material:



4 triangular cuts fit in one bin-liner. Both packs of Rock-Wool (6 plates each) result in 24 triangular packs. That is enough for a room height of 2.4 m. I built the absorbers only about 1.9m high and therefore got by with 18 packs.

3. Step: Construction of the room-corners:



First divide the wood (MDF) panel diagonally and cut off the tips. Then screw the two roof battens to the wall at a distance of 35 and 50 cm from the corner. Attach the brackets below and screw them onto the triangular plate. Attach two additional small brackets to the wall for stabilization. Stack the triangular absorber packs up to the ceiling. Compress the packs and put one more on top to make it last.

4. Step: Building the covers:



First build a rectangular frame from roof battens. Outer size: 190 x 65 cm (If you are building the modules for a higher room, change the dimensions accordingly). I held the ends together with a 90° angle clamp, pre-drilled the protruding slats twice (!) and screwed the corner together with two 4.0 x 70 wood screws. Insert one or two cross braces in the middle for stabilization.

Cut out a rectangular piece from the fabric that protrudes the frame by approx. 10 cm on each side. First staple in the middle (close to the cross brace). Caution: always make sure there is sufficient tension in the fabric. Then fasten the fabric all around (first stretch then staple!). After this, cut off the excess fabric and fold in the corners so that they look neat. Here you should glue loose fibres with some wood glue so that it is stabilized.

5. Step: Mounting the covers:



Hold the cover to the corner absorber and fasten it with 6 screws to the roof battens attached to the side of the damping elements. Tip: Measure the exact distance between the two panels and pre-drill in the cover frame with this distance. I recommend being two persons or having a good breakfast before 😊

Ready!

A small addendum:

If you were wondering about the shelf in the background between the two absorbers, then I have another inspiration for you:

It is a shelf whose back consists of two absorption modules. The modules are made from the remains of the corner absorbers. Here is an overall view with and without shelves:



Only the top, the bottom and the middle board are fixed. All others are just inserted. I deliberately left the gap between the two absorption modules because my power amp is relatively deep and was placed there. Here are a few more detail shots:



If you are interested in more details of this shelf, just write me an email: kai@kaikochmusik.de