

Illustrated construction manual: The Colour Mixing Desk

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<https://michelswunderland.de/solderiron/colour.html>



The individual parts of the kit. In addition to the adhesives and tools shown, some black, white and gold paint as well as super glue were used. Furthermore, a rectangular angle is helpful when assembling the axles.



Steps 1 – 3: Preparing the top part of the desk with its side parts and the two upper shaft bearings.

Tip: A steel ruler is helpful for the exact folding of long edges.



Steps 3 – 5: Gluing the cardboard discs into blocks for the upper and lower shaft bearings.



Step 3: After notching the edges of the bearing block, the metal bushes are inserted. The easiest and cleanest way to do this is to use superglue.



Step 3: The finished console top with the upper shaft bearings attached.



Step 6: Creation of the lower shaft bearings.

Since the metal sleeve is inserted from the inside, one side of both brackets must first remain open. Before gluing on the previously built black bearing block, check whether the sleeve can be pushed through the hole without much resistance. If necessary, the hole must be widened a little.

The gluing of the metal sleeve was also done with superglue.



Steps 6 & 7: Gluing the lower shaft bearings to the underside of the desk and checking for lightness of the shafts.



Step 8: Attachment of the inner supports for stiffening.



A first function test (the rotating discs had already been built) showed that the two axles tilted towards each other due to the tension of the rubber ring on the top of the desk.

This shortcoming was corrected by preventing the lower bearings from tilting outwards. Two pieces of ABS plastic (2x20x20 mm), fixed with instant glue, were the simple solution.



Step 9: The base plate also represents a small deviation from the instructions.

To increase stability, a poplar plywood panel was used, which was visually adapted to the design of the mixing desk by means of shellac matting, clear lacquer and matt black.



Step 10: Gluing the top part of the desk to the base plate - view from below.



Steps 11 – 13: Creation of the driving wheel consisting of eight discs.



Steps 15 – 18: The creation of the crank.

Here we deviated from the sequence in the instructions in order to simplify precise edge colouring. First the crank, the shaft holder and the crank handle support blocks were made without gluing them together. Only after the edges had been indented were the parts joined together.



Steps 15 – 18: The finished driving wheel with the crank.

The crank handles and the shaft were again fixed with superglue.



Steps 19 & 20: The impeller consists of 4 inner discs and two upper and two lower guide discs, with edges already dyed to fit.



Steps 21 & 22: The colour disc carrier composed of four discs.



Step 23: The shaft holder block for the colour disc carrier. The black cover is only fitted after the shaft has been inserted.



Steps 24 & 25: Side view of the colour disc carrier with shaft, its holder and the impeller.



Step 26: After the colour disc carrier and the driving wheel with their shafts have been put into the bearings, it becomes colourful...