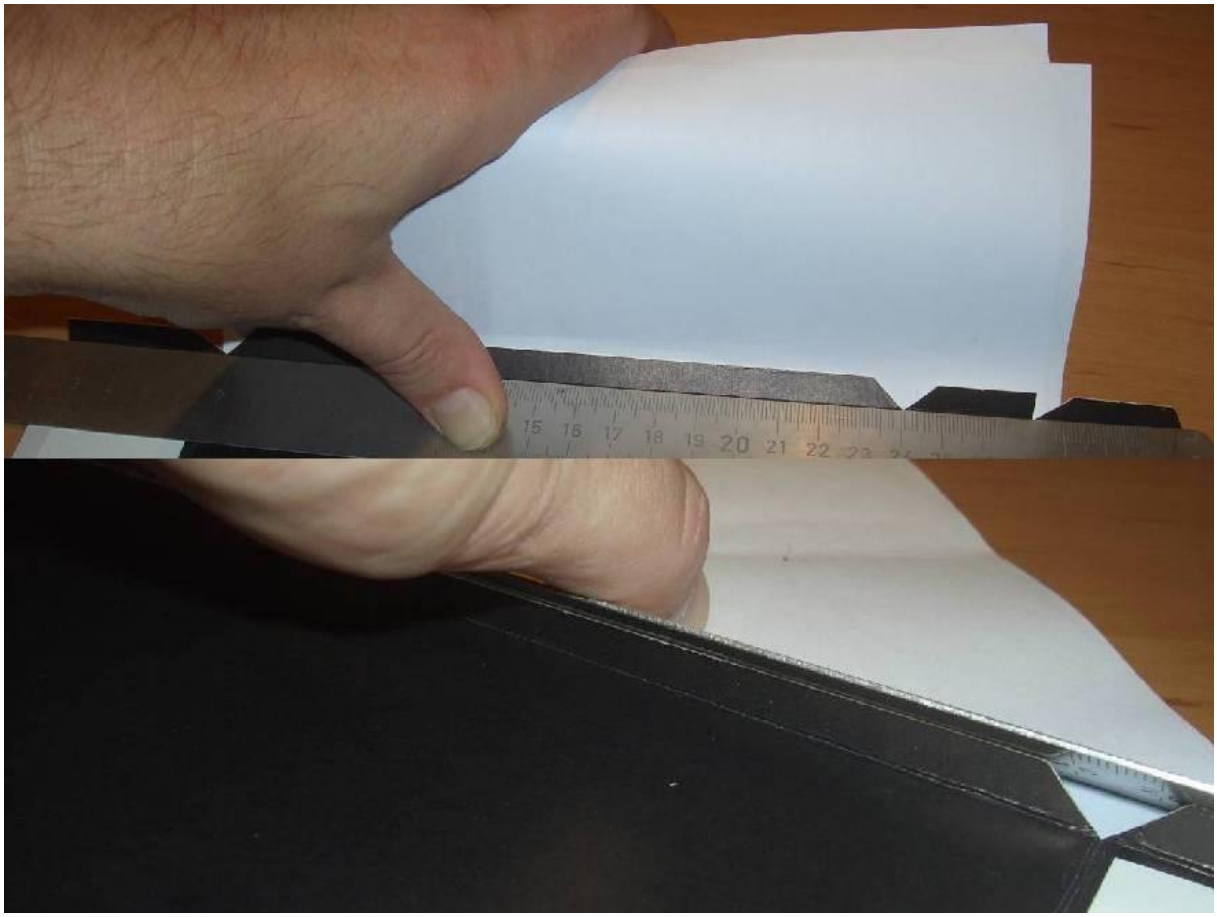
Illustrated Construction Manual: The Solar Projector

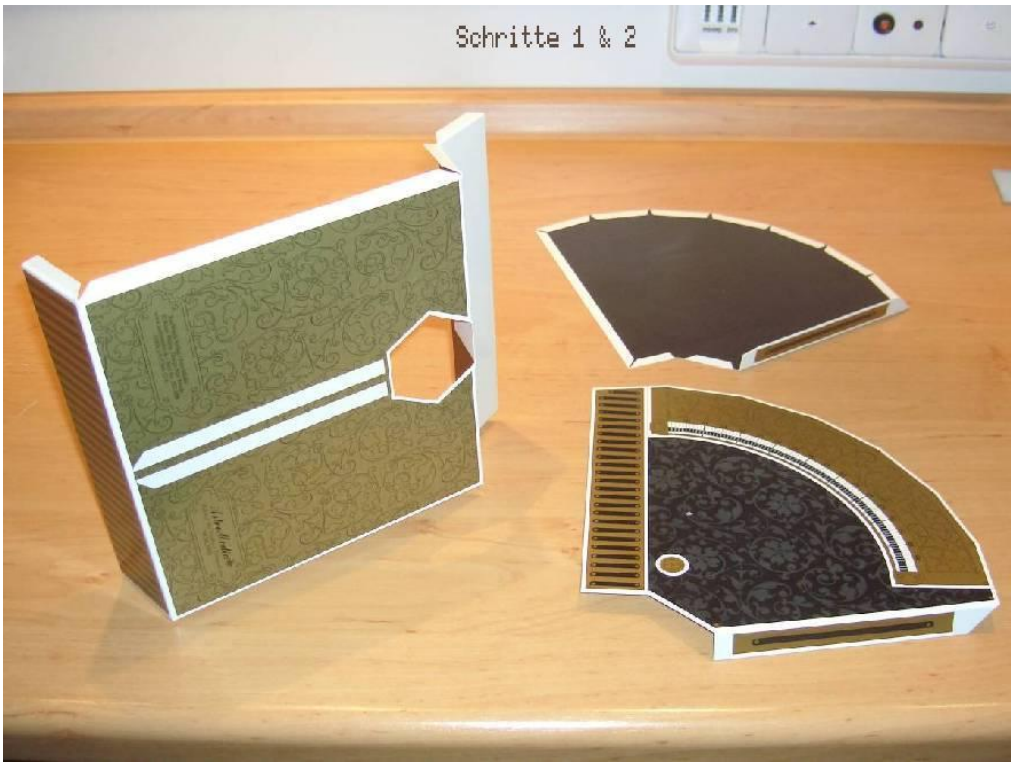
https://michelswunderland.de/solderiron/solar.html

The kit contains a moderate number of parts.

In addition to the adhesives and tools shown, some black, white and gold paint as well as instant glue and a two-component glue (Stabilit Express) were used.



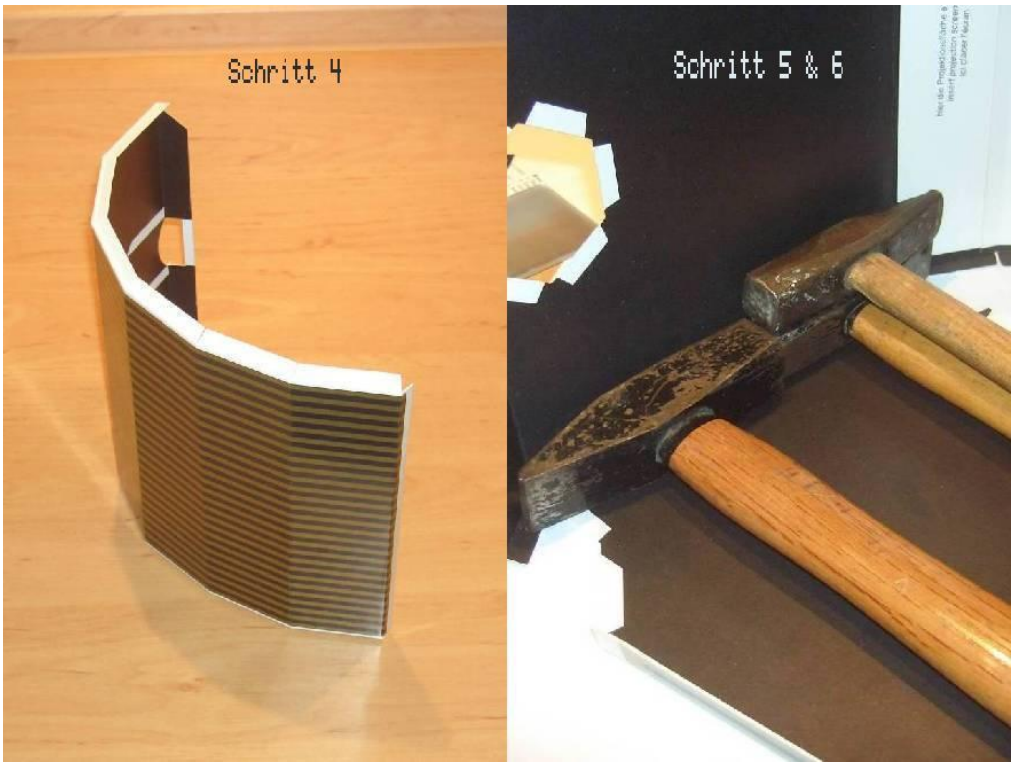
Tip: A steel ruler and paper underneath is helpful for the exact folding of long edges.



Steps 1 & 2: Preparing the side panels and the front wall.

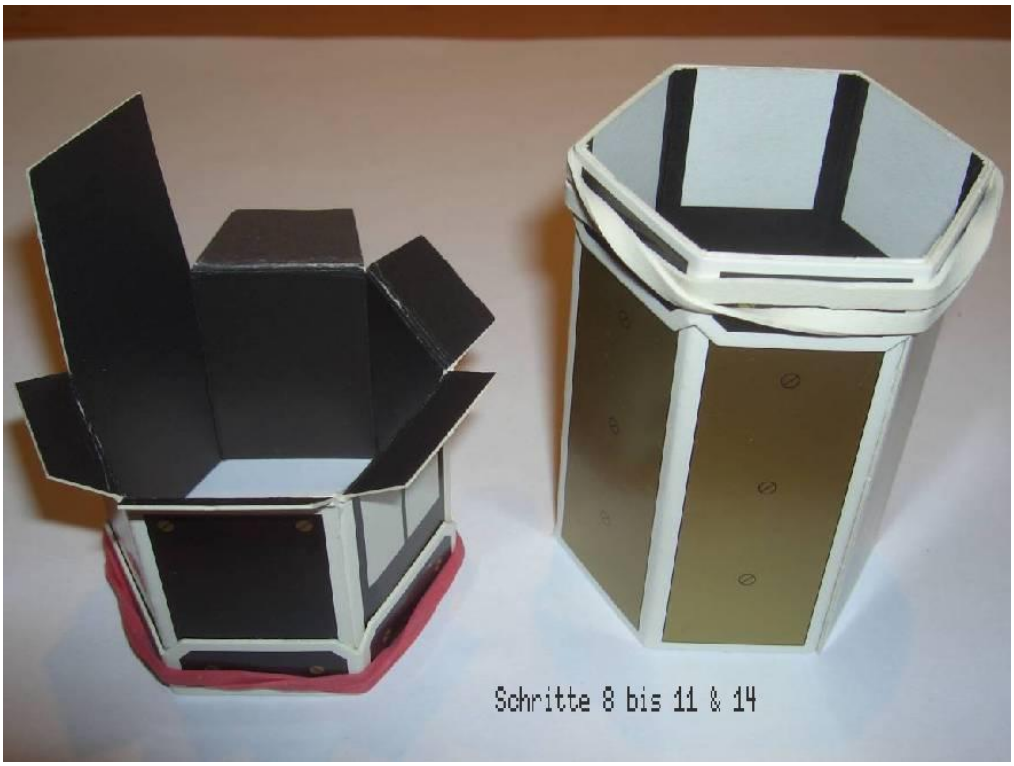
Step 3: Gluing the plane mirror holder to the front wall.

The lower part of the picture shows the pressing of the glue joint with books.

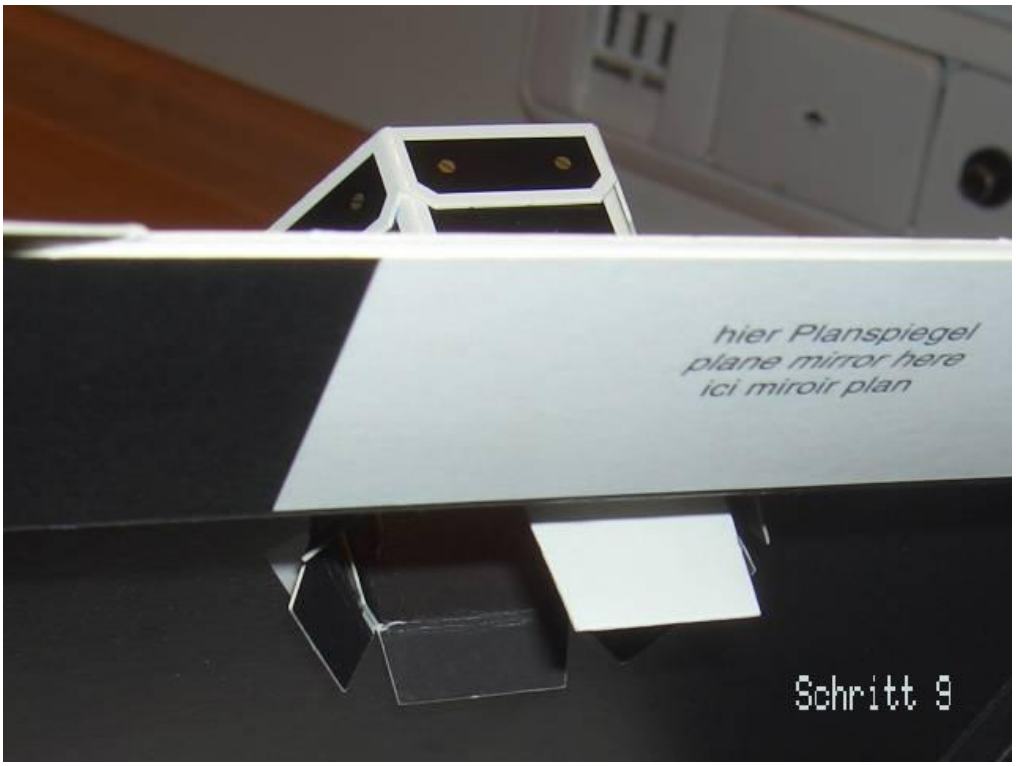


Step 4 and steps 5 & 6: Preparing the back wall (left picture) and gluing it to the front and one of the side walls.

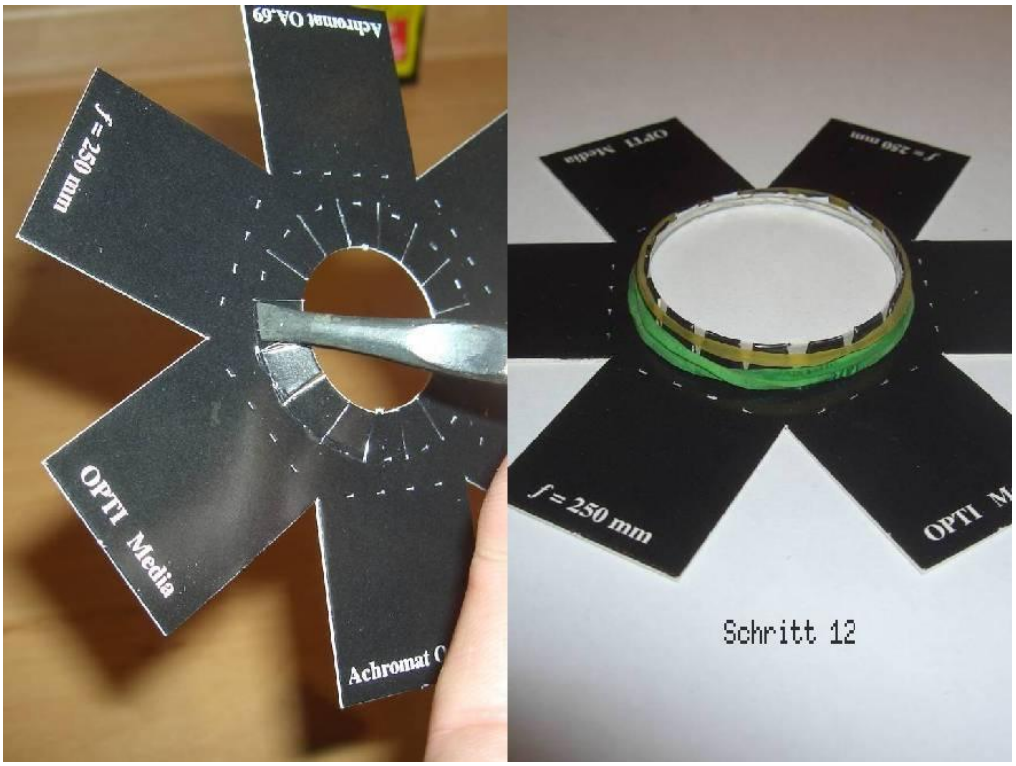
Step 7: Gluing the other side wall.



Steps 8 – 11 & 14: Creation of lens guide (left) and tube.

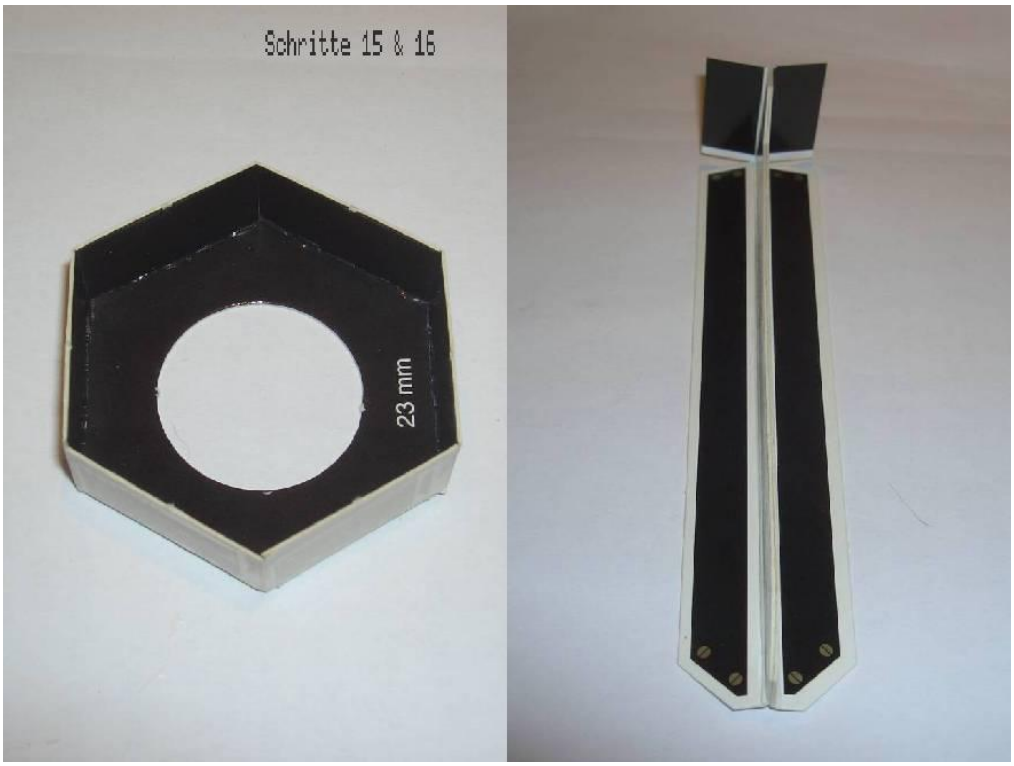


Step 9: Trial insertion of the lens guide.

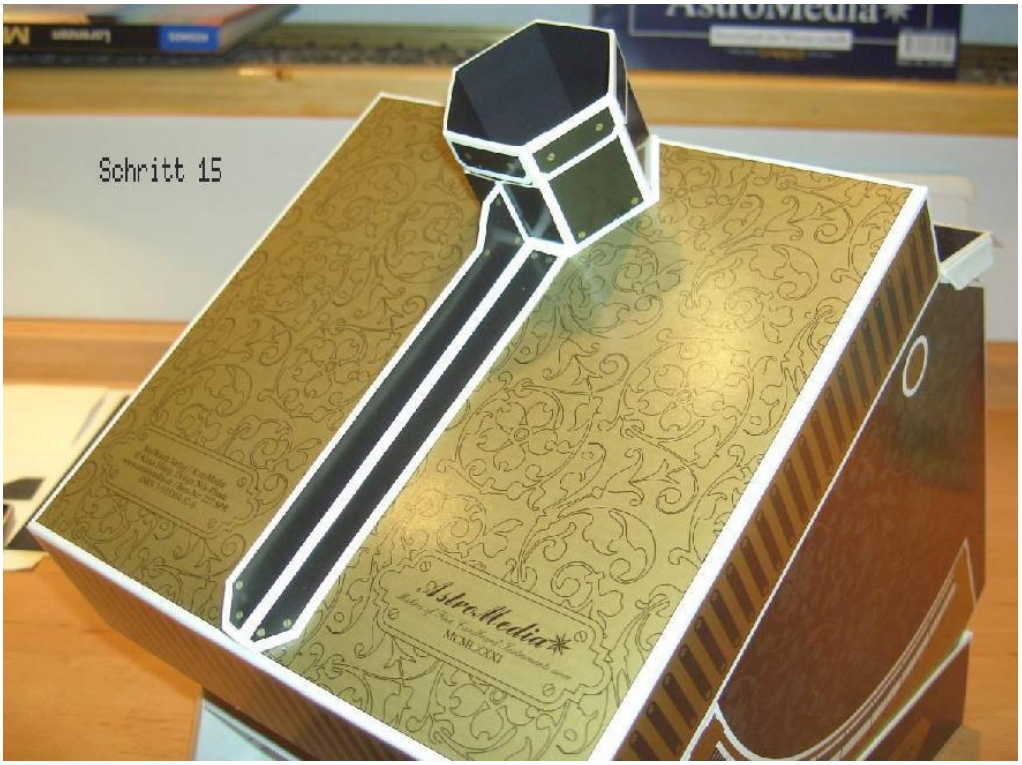


Step 12: Creating the objective lens holder. A pair of tweezers with flat ends makes it easier to fold the tabs precisely.

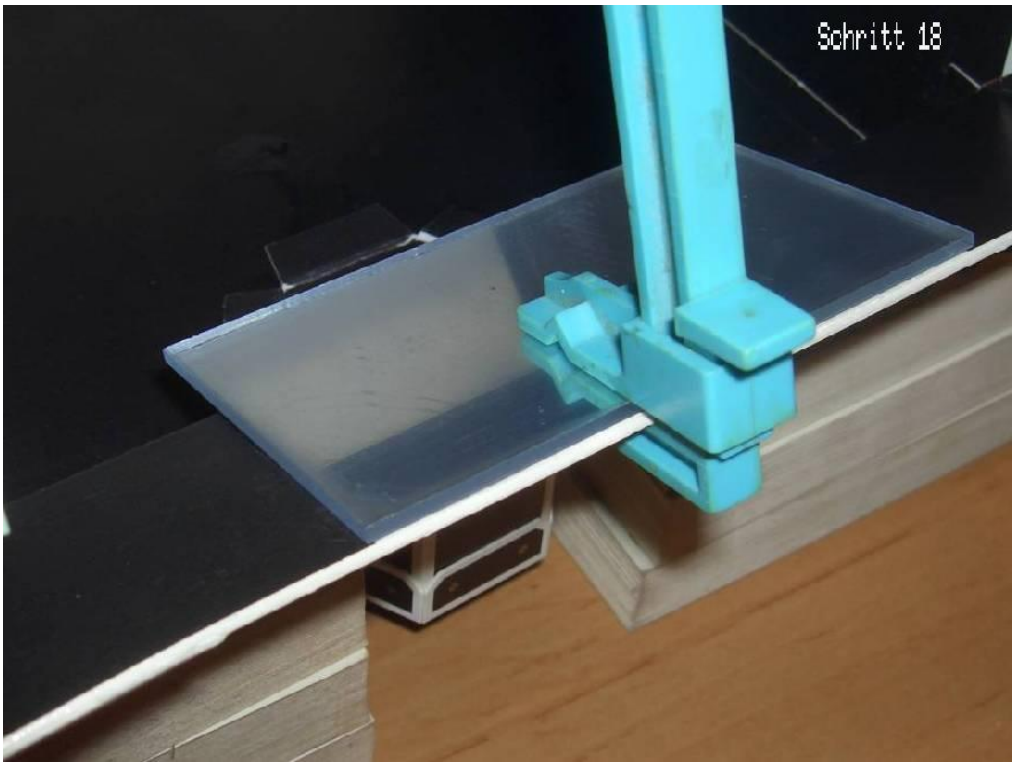
Step 13: Objective tube with the objective lens inserted in its holder. The cuff (step 14) has already been attached before (see above).



Support for the lens guide (right, step 15) and 23mm lens aperture (step 16).



Step 15: Gluing the lens guide to its support on the housing.



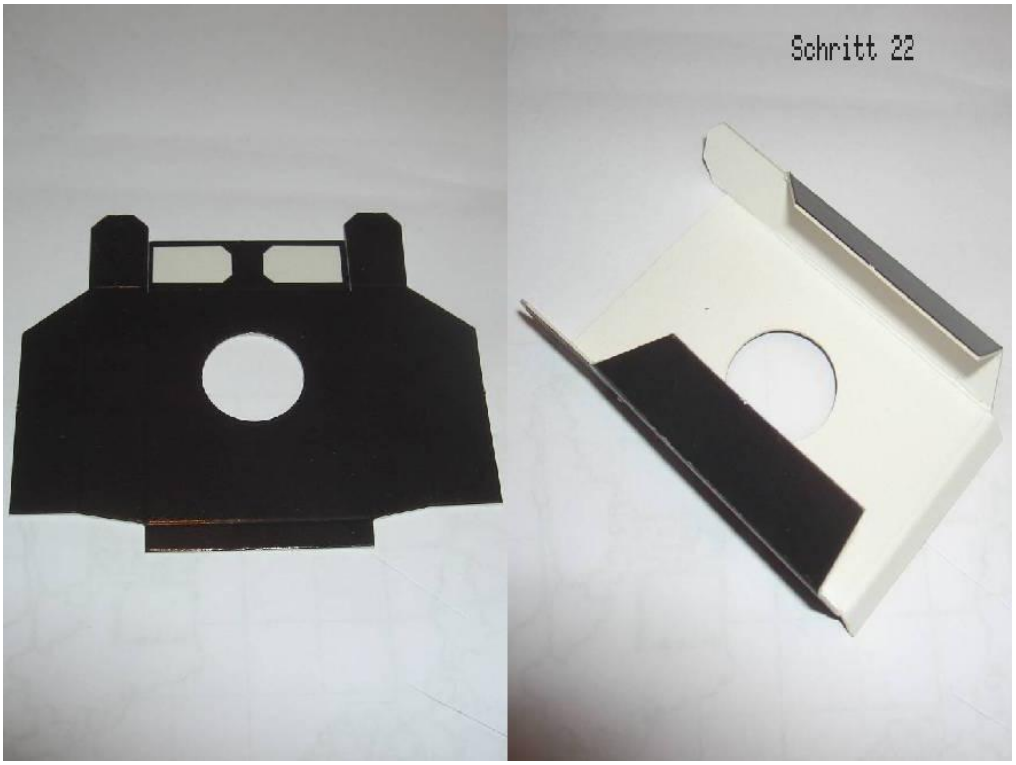
Step 18: Attaching the plane mirror (with the help of a mini clamp).

Step 19: Glueing the side flaps of the plane mirror holder (again with the help of mini clamps).

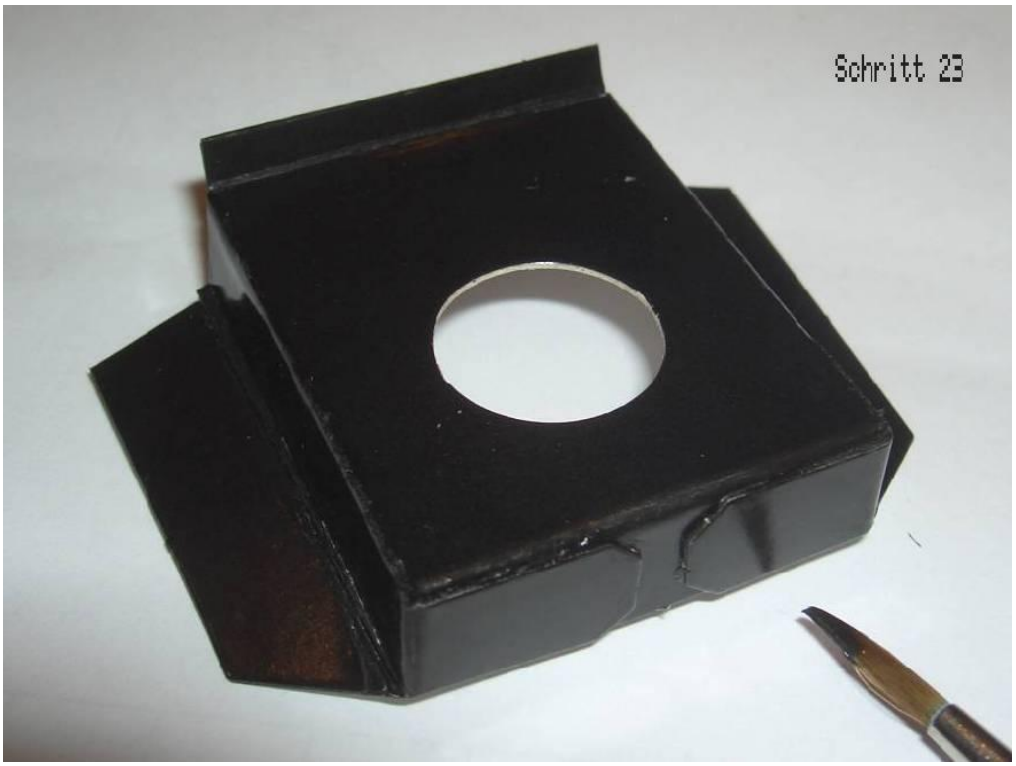
Contrary to the assembly instructions, the trapezoidal tabs of the bracket were also connected to the housing.

Steps 20 & 21: Creation of the turning cassette for the convex mirrors. The lower part of the picture shows the pressing of the edge strip.

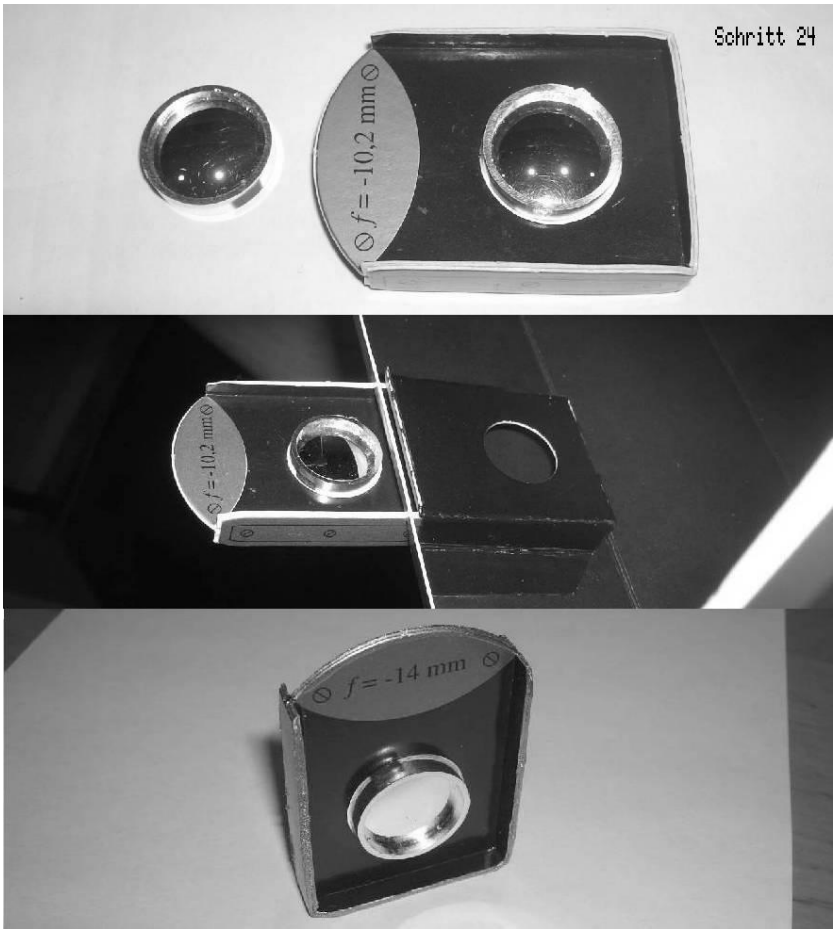
The rounding on the left comes from a book which serves as a height-compensating support for the weighting on top.



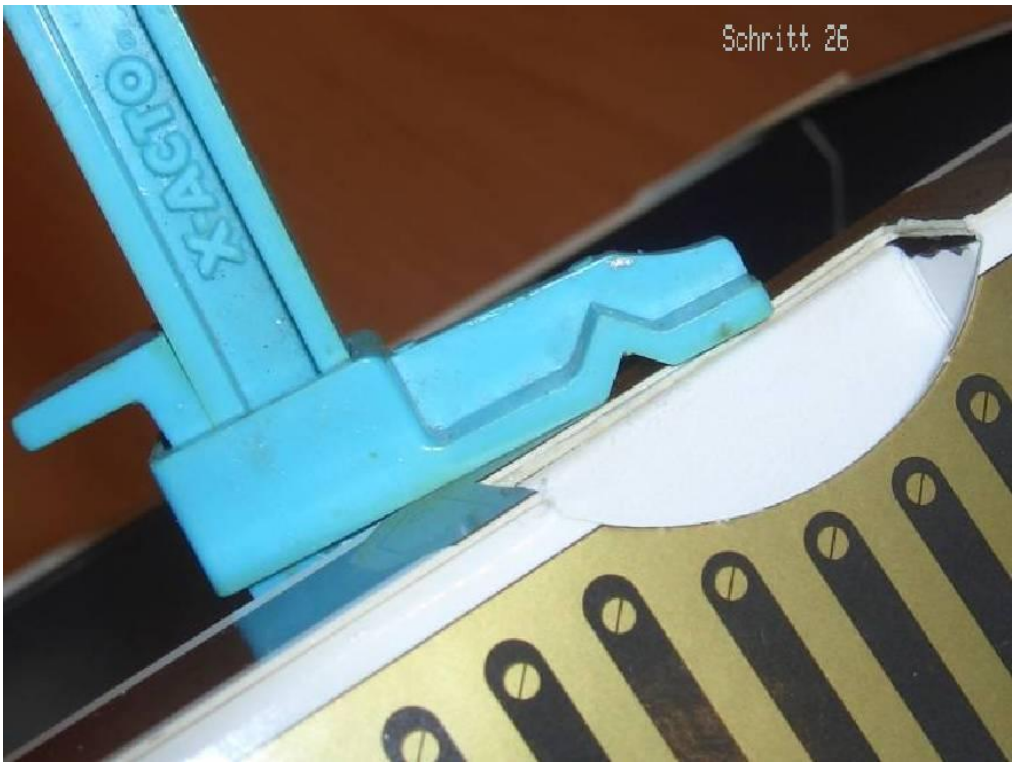
Step 22: Production of the drawer for the reversible cassette.



Step 23: Completion of the drawer. The cracks in the black surface caused by the folding process were covered with a little black paint and the edges were also coloured.



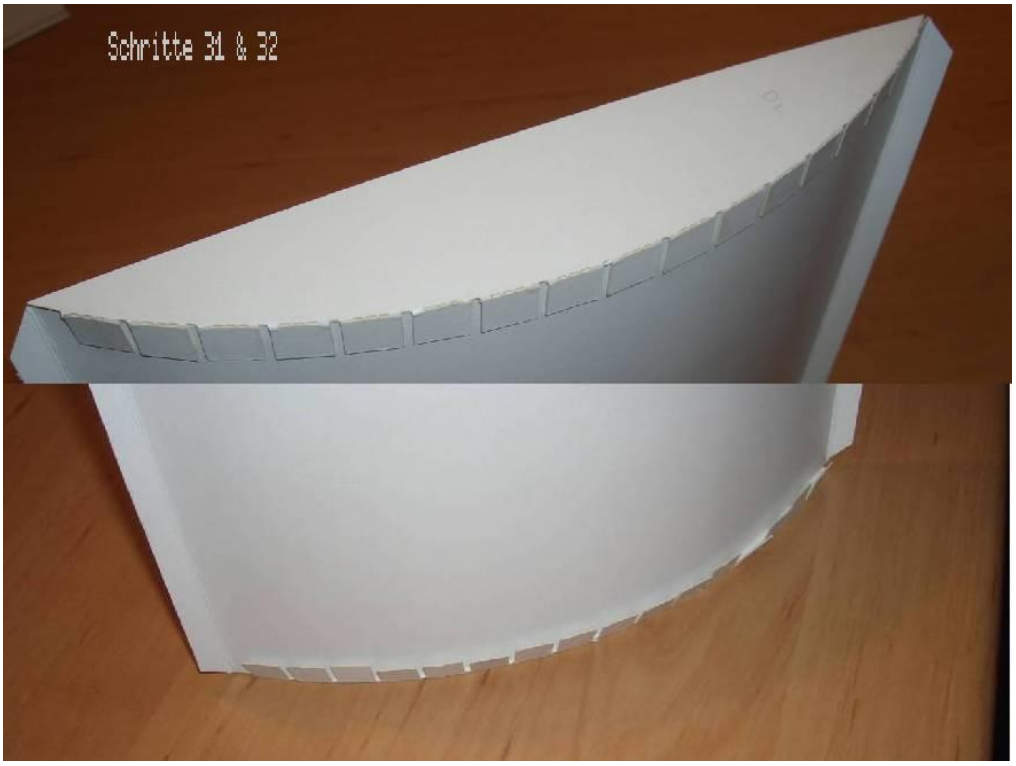
Step 24: Attaching the convex mirrors. Oooops ! The camera ran out of paint. After fitting into the slipcase, the edges are painted gold.



Step 26: Gluing the reversible cassette flap to the folded edge of the back wall. A mini clamp also does a good job.

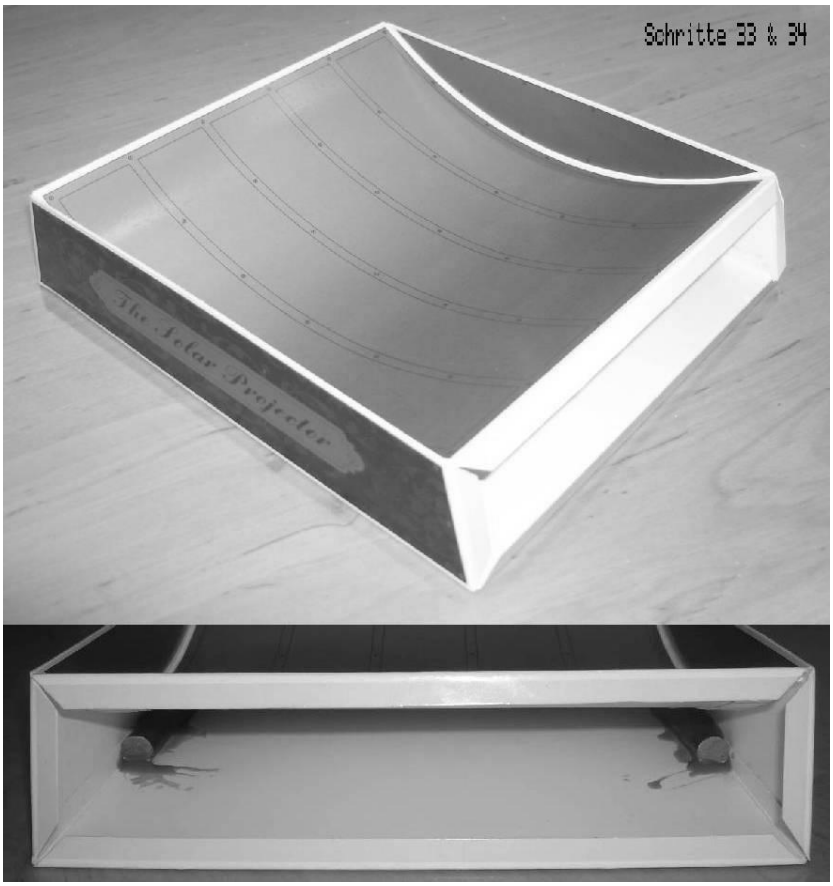
Step 27: Attachment of the projection surface inside the projector. A slight weighting ensures flat adhesion.

Steps 29 & 30: Preparing the side parts of the base.



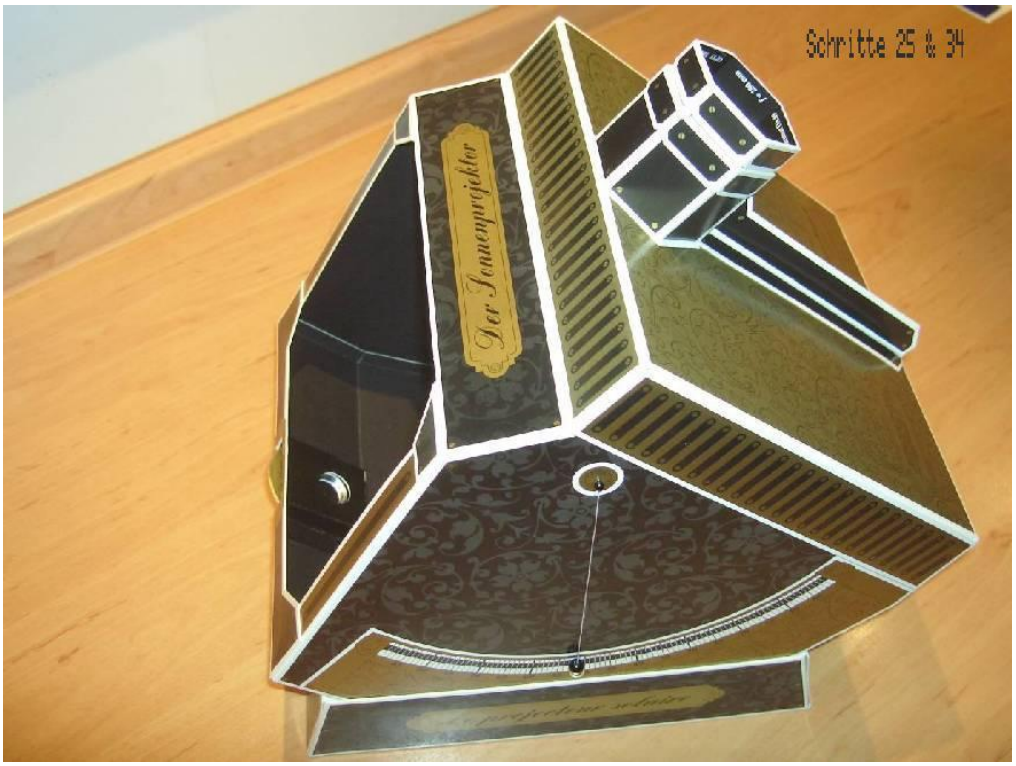
Steps 31 & 32: Connection of the side parts of the base with the vaulted stand surface.

Step 32: Finished glued "tub" of the base. Unlike in the instructions the outer side parts have not yet been processed, which was done here in step 33.



Steps 33 & 34: Final assembly of the base.

Before attaching the front part, metal rounds were fixed inside for weighting with "Stabilit Express".



The sun projector with tilt indicator made of pin, twine and glass bead on its base.

Finished !