

Instructions for assembling your astrolabe

The astrolabe template is a photographic reproduction of an instrument from the museum's collection made by **Johann Linden** in about 1580 (Inventory number **43415**). It is typical of an instrument originating from the European Renaissance during which there was a revival of interest in antiquarian instruments of this sort. Such instruments might have been enjoyed as much for their novelty and instructional value as for practical purposes of astronomical calculation.

Printing

The main body (front and back), rule and alidade

These should be printed either on to A4 white card or on to A4 paper and then glued on to card. A more durable instrument with greater stiffness can be obtained by using artist's mount card or card of a similar weight.

The rete (skeletal star dial)

This should be printed on to an A4 transparency (ensure that you check compatibility with your printer, especially laser printers). Note that there are two retes per A4 sheet and only one rete is required for each instrument.

Note: Check the size compatibility of the rete and mater – you may have to enlarge the mater (front and back) to 104% so that it matches the size of the rete. The rete should extend no further than the inner edge of the calendar scale as indicated by the scuff marks on the front side of the instrument.

Assembly

1. Carefully cut out the front and back of the astrolabe (and a suitable piece of card if you wish to make it thicker) and glue them back to back.
2. Use a 1/8th inch (or 3mm) punch (available from a good hardware shop) to punch out the centre hole and the top suspension hole. A key ring may be added in order to suspend the astrolabe vertically.
3. Cut out the rule and the alidade. The alidade has protruding pieces which indicate the positions of sighting vanes and goes on the back of the instrument. Small sighting vanes made of thick card with small pinholes may be glued in these positions. Alternatively the tabs can be bent at right angles to the plane of the instrument to provide elementary sighting vanes.
4. Cut out the rete as a complete circle. Do not bother about any detailed shapes.
5. Punch holes in the centres of the rete, the rule and the alidade.
6. Finally, assemble the instrument by placing the plain rule and the rete (check this is the correct way round) on to the front side of the main body (this is the side with the horizon line and the coordinate grid markings), and the alidade on the back. Fasten together with a paper fastener.