

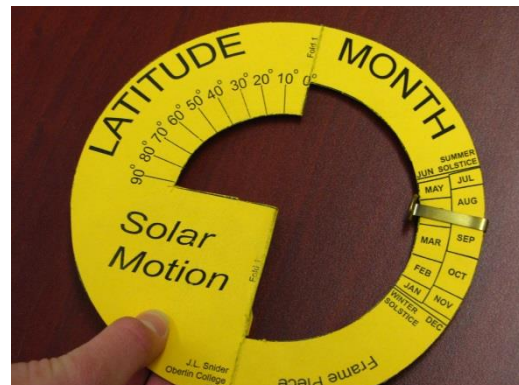
# Solar Motion Demonstrator

## Assembling the Solar Motion Demonstrator

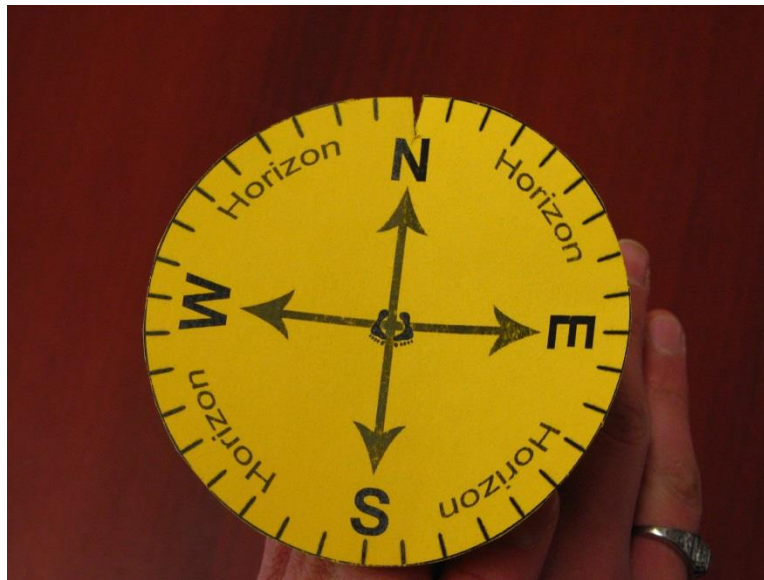
1. Cut out the **Solar Motion Frame** along its outline. Cut out and remove shaded area marked "Remove." Fold the Frame Piece (with the months marked on it) along Fold 1 so that it swings back and forth all the way around.



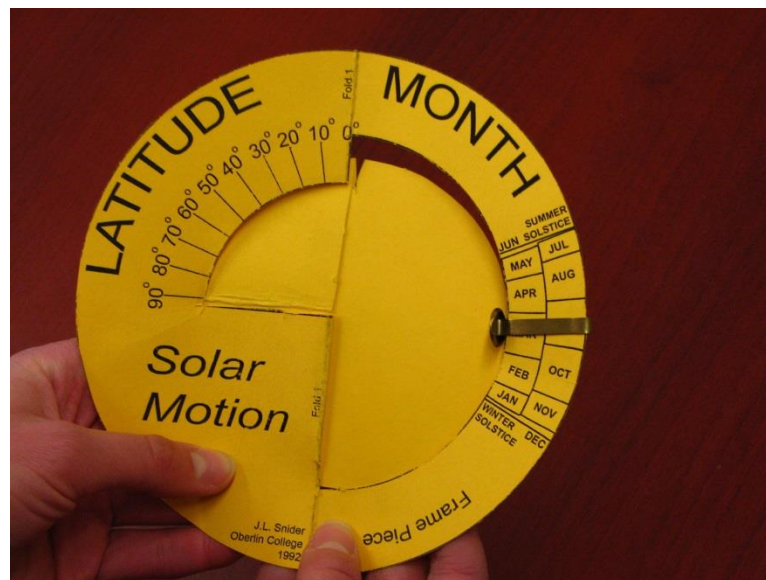
2. Hold the frame so that you can read the words "Solar Motion" facing towards you. Now fold along Fold 2 so that the flap marked "glue" folds away from you at a right angle.



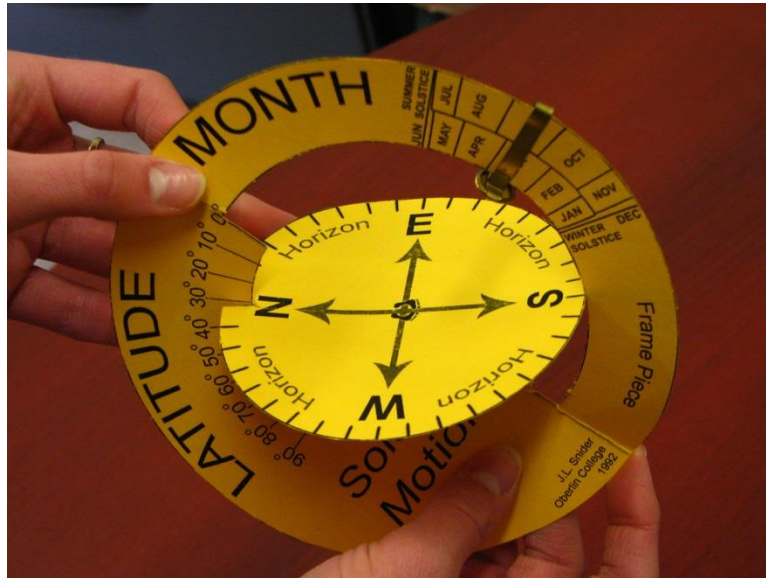
3. Cut out the **Horizon Disk**. Cut out the small triangular notch above the “N” or north position.



4. Apply glue where indicated on the Solar Motion Frame. Press the back of the northeast quadrant of the Horizon Disk against the flap of the Solar Motion Frame containing the glue. The correct alignment of the solar motion frame and the horizon disk is essential to the working of the device.

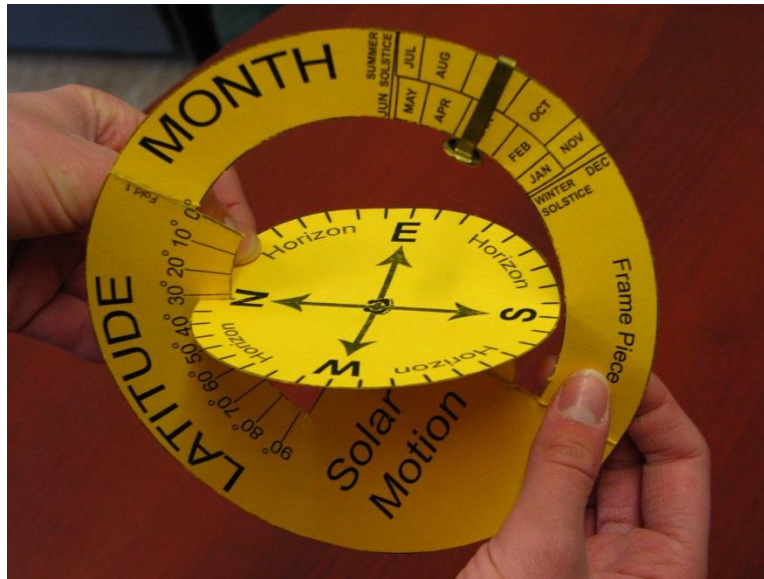


5. Attach a brass fastener on the month frame piece. The head of the brass fastener represents the sun. Bend the fastener tabs over the outside edge of the month piece. The fastener must be able to slide along the month piece.

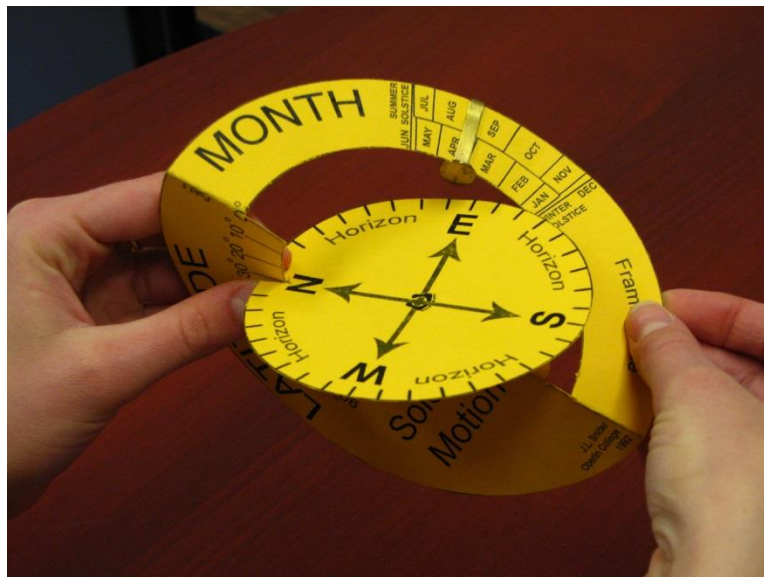


## Using the Solar Motion Demonstrator

1. Slide the notch above the N on the Horizon Disk to the correct latitude and slide the brass fastener to the correct month. Hold the Solar Motion Demonstrator so that the Horizon Disk is parallel to the ground. Imagine you are standing on the footprints.



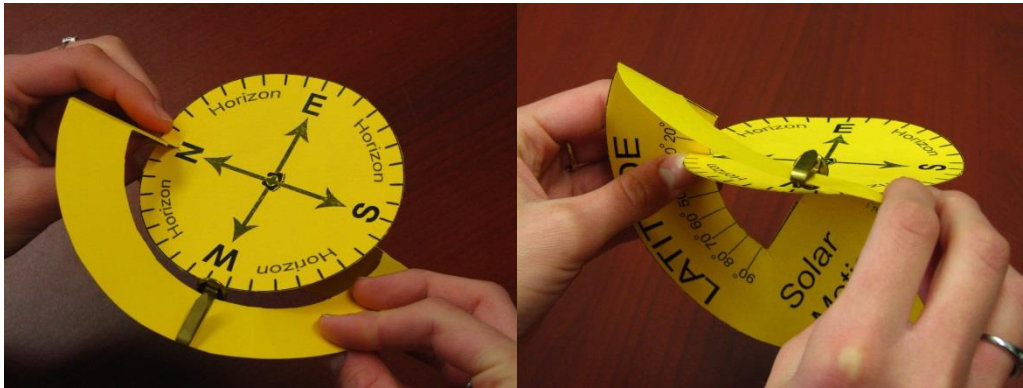
2. While holding the latitude half of the frame piece stationary, move the month half of the frame piece over the horizon. The position of the brass fastener indicates the position of the sun in the sky at that time of day and year at that latitude.
  - a. Sunrise is when the sun rises over the east horizon.



b. Mid-day is when the sun is directly over the footprints in the center.



c. Sunset is when the sun sets over the west horizon.



## Solar Motion Demonstrator Template

The **Solar Motion Demonstrator** was designed by Professor J. L. Snider of Oberlin College, USA. You may reproduce it for your own classroom or planetarium use (but not for commercial purposes).

