DIRECTIONS:

1. Carefully cut out the gnomon (this page) following the outermost heavy lines only. Makes a "half-pie".

2. Fold the "half-pie" in half along the center dashed line, leaving the side with the diagrams and hour lines on it toward the outside.

3. Fold the two wings back up, along the other two dashed lines. The gnomon (center section) should pop up, and the wings with hour lines on them become flat. All folds start at point "A".

4. Adjust the folded gnomon so that the hour lines on the wings exactly match the hour lines on the plaza card. The point where are three folds meet (point "A") should be placed at the center of the fan near the box marked "S". The Corners "B" and "C" should match corners "B" and "C" on the plaza.

5. Tape or glue into place. Your sundial is done!

6. To use: Lay the sundial on a flat place with the line from "S" to "N" pointing exactly to the North. The shadow of the gnomon (the part jutting up) will cross from West to East in the course of a day, crossing the radial lines each hour ("IX" corresponds to 9 am Central Standard Time, "X" to 10 am, "I" to 1 pm, etc.) Solar noon is when the shadow crosses the N-S line (the 21 minutes different from Central Standard noon is because Houston is west of the center of the Central Time Zone). Dates and times marked on the dial are good for anywhere in the Houston area.

7. The day of the year can be noted by seeing the length of the shadow - the longest shadows correspond to December 21, and the shortest shadows correspond to June 21. The shadow track over the course of a day is a curve, marked one day for each month. On the equinoxes, the shadow path is a straight line from W to E.

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