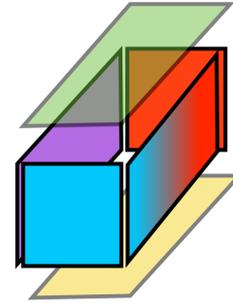


GREAT AMERICAN ECLIPSE 2017

Homemade observatory to view it safely

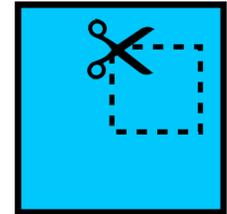
The Great American Eclipse will cross the country from coast to coast on Monday, August 21st, 2017. In southern California the Moon will start covering the Sun at 9:06 AM local time (PDT), it will cover the most (maximum, up to 62%) at 10:22 AM, and will end at 11:46 AM. **You should never look at a solar eclipse without proper protection.** This homemade observatory allows you to safely view all of the eclipse as it happens.



- What you will need:
1. Cardboard box
 2. Aluminum foil
 3. Scissors
 4. Duct tape
 5. White paper
 6. Pushpin or needle

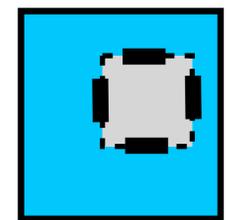
1

Look at the box above, we have given a color to each side of the box, to make instructions easier. Cut a small square on the 'blue' side of the box.



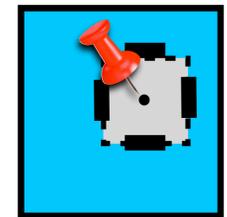
2

Cover the small square you just made on the 'blue' side of the box with aluminum foil and tape it to the box with duct tape.



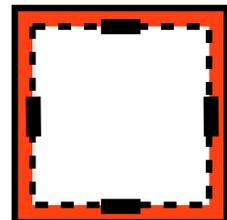
3

Make a tiny hole in the center of the aluminum foil with a pushpin or needle.



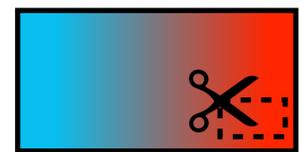
4

Tape white paper on the 'red' side that faces the inside of the box. Try to cover as much of the side as possible with the paper.



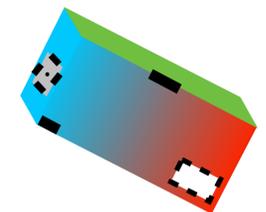
5

On the 'blue to red' side of the box, cut a small rectangle on the lower half closest to the 'red' side of the box. This will be your *viewing window*.



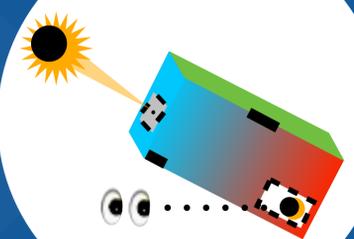
6

Close the box and look through the viewing window, search for light seeping in from places other than the pinhole. Cover those places with duct tape, make the inside of the box as dark as possible.



7

During the eclipse, point the pinhole to the Sun. Light will come into the box and you will safely see how the Moon covers the Sun, through the *viewing window*, as the eclipses happens.



8

Discover more about the total solar eclipse of August 21, 2017 at <https://eclipse2017.nasa.gov/>

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