

How to Make a Box Pinhole Projector

Adapted from NASA's *How to Make a Box Pinhole Projector Video*

<https://svs.gsfc.nasa.gov/14391>

Materials

- Cardboard box (cereal boxes and shoeboxes work great)
- Scissors
- Aluminum foil
- A pencil
- A push pin
- Tape
- A white piece of paper (big enough to cover one end of the box)

Directions

It may be helpful to follow along with the video while you make your Box Pinhole Projector. Start by tracing one end of the box on the white sheet of paper. Then cut out your shape and place it inside of the box on the same end you just traced. Next, cut two square holes on the opposite end of the box. One on the left and one on the right. If you're using a cereal box, tape up the middle to help everything stay together. Now, cover one of the square holes completely with aluminum foil. Use tape to help the foil stay in place. Finally, take the push-pin and punch a very small hole in the center at the aluminum foil.

Use Your Projector

Always remember you should never look directly at the Sun, because it's very dangerous and will hurt your eyes.

To use your box pinhole projector, stand with your back to the Sun. Then hold the large square hole up to your eye and move the box around until you see the sun projected on the paper. Remember, do not look directly at the Sun with your projector, it is not safe.

Happy eclipse watching!

