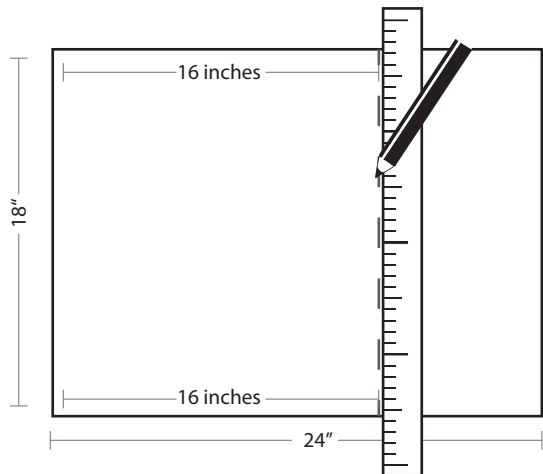
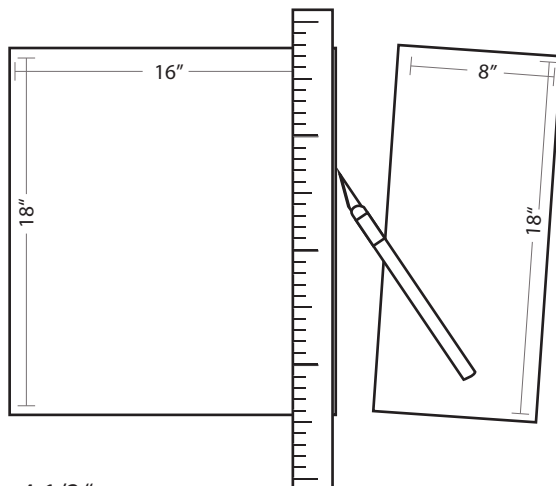


Making A Carboard Camera!

1. Start with an 18"x24" sheet of cardboard
2. On the long edge measure out to 16 inches on each side, then draw a line across using a ruler.

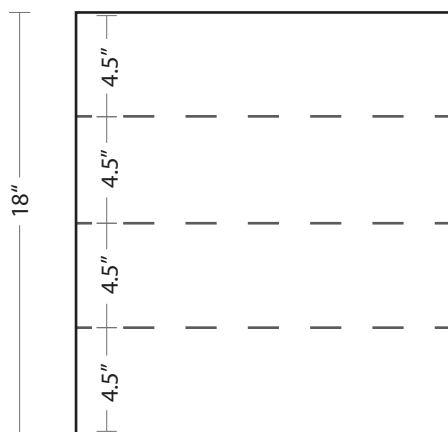


3. use a knife or scissors to cut into 2 boards



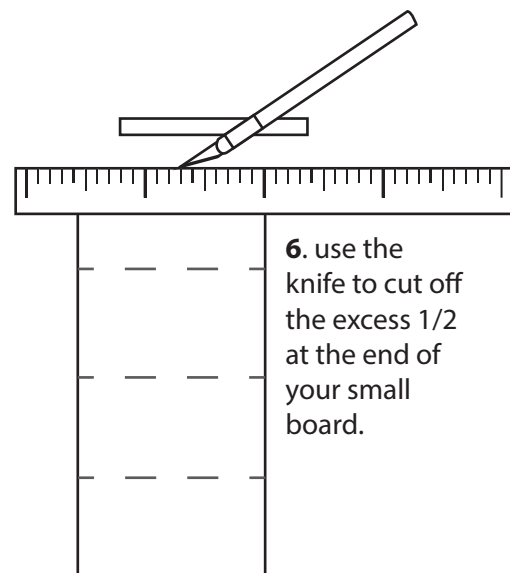
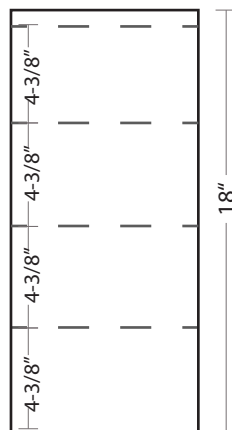
4. On the bigger board measure and mark lines every 4-1/2" (so on your ruler that would be a mark at 4-1/2", 9", and 13-1/2")

OR use provided template

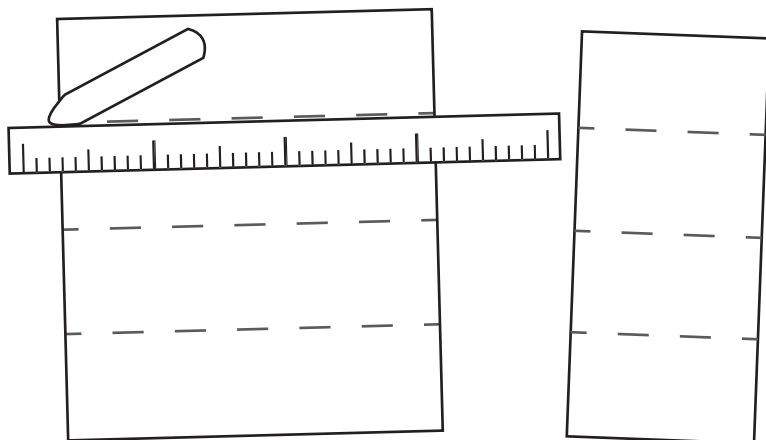


5. On smaller board, measure out every 4-3/8" (so on your ruler that would be a mark at 4-3/8", 8-3/4", 13-1/8", and 17-1/2")

OR use provided template

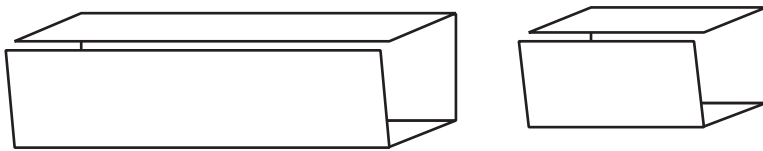


6. use the knife to cut off the excess 1/2 at the end of your small board.

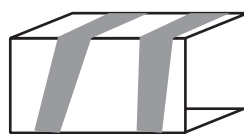


7. Using a ruler and a firm edged object, like a bone folder, score (put a crease in) the cardboard along each line, for each board.

8. fold the boards on their scored lines,



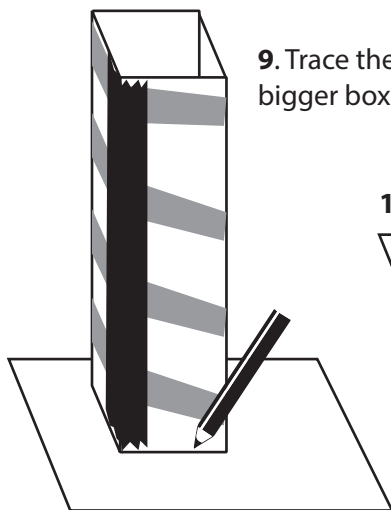
then use tape to secure the two open edges together and give the box some strength



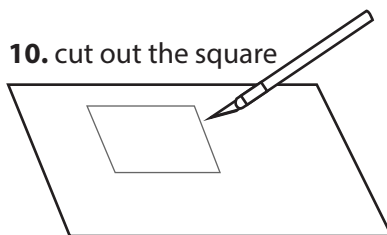
if your edges aren't making a good, light proof seal, use black tape to cover the connecting edges.



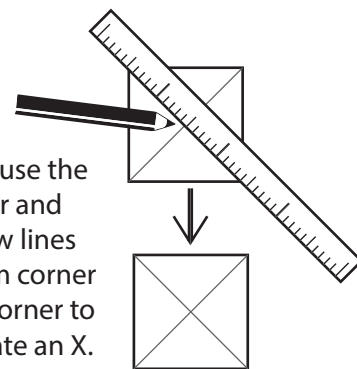
9. Trace the square end of the bigger box on cardboard.



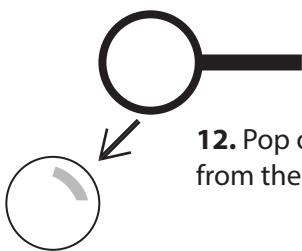
10. cut out the square



11. use the ruler and draw lines from corner to corner to create an X.



12. Pop out the glass from the magnifier

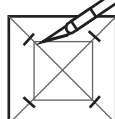
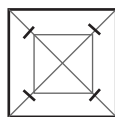
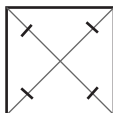
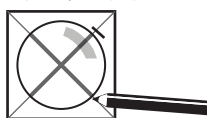


13. line up the magnifying glass in the center of the X

and mark the spots where the edge of the glass crosses the lines

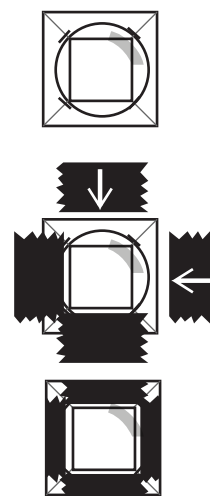
Then draw a square slightly smaller than your marks

and finally cut out your inner square.



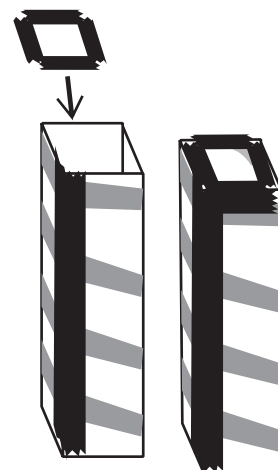
this is your *aperture*!

14. Line up the glass over the opening and tape the glass to the cardboard end without covering up the opening

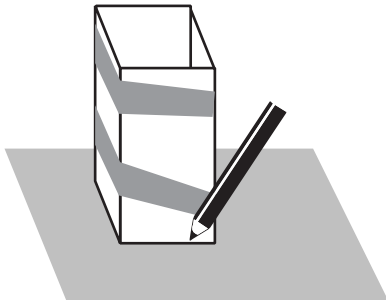


this is your *lens*!

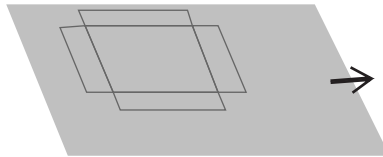
15. Tape the lens to the end of your big box



16. Trace the end of small box on tracing paper

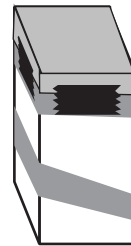
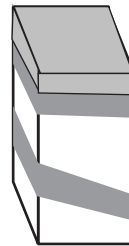
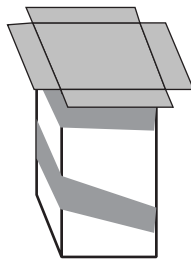


17. Add tabs and then cut around



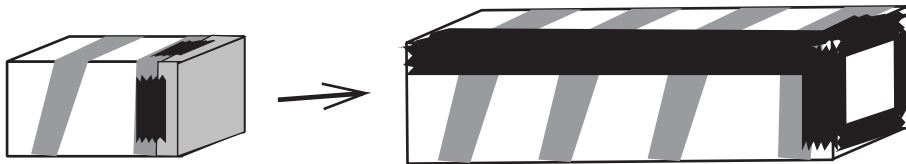
18. Tape to the end of the small box, using the tabs to secure the tape.

Keep the tracing paper on the end clear of tape.

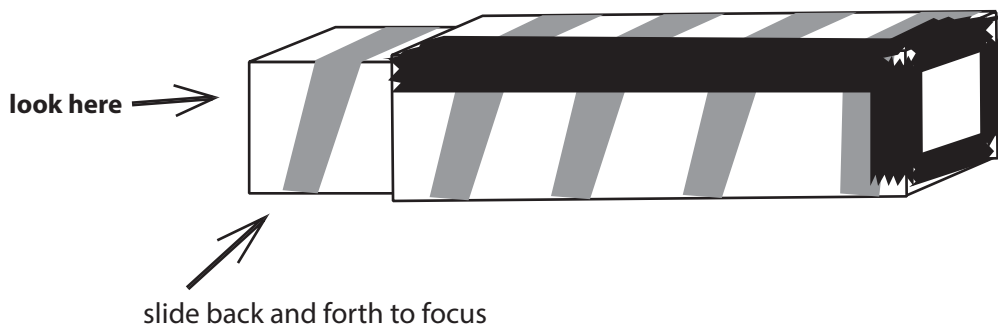


This is your *image sensor*!

19. Slide your image sensor end into the open end of your larger box



20. Done!



Congrats!

You made a camera!

Go experiment with it!
Use your cell phone to capture your images.