FOV2GO Model D Assembly Instructions

by Perry Hoberman for MxR Lab http://diy.mxrlab.com/

Materials

* Two (2) 1 1/2" diameter lenses.
(from UltraOptix 7X Aspheric LED
Lighted Magnifier Model SV-2LPLED)
http://www.ultraoptix.com

* One (1) 20" x 24" black 3/8 (4mm) foam board.
* Double Sided Tape
* Repositionable Glue Stick

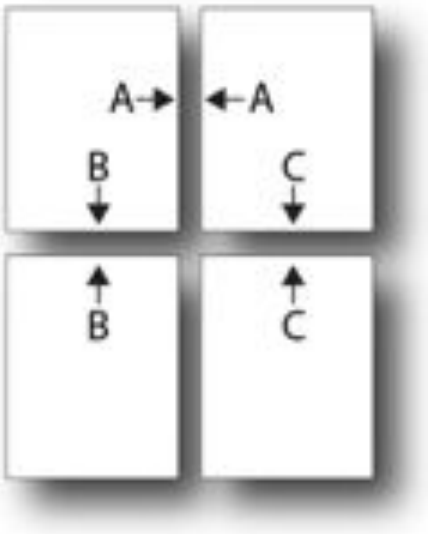
Tools

Steel straightedge

Matte knife

* Pushpin or T-pin
* Cutting surface

X-Acto Compass Cutter Model X7753
http://www.xacto.com



Assembly Instructions

1. Print out the one of the FOV2GO Viewer templates. Make sure that it prints out at 100% scale (you can check that the 100mm reference lines are exactly 100mm)

2. Arrange the pages so that the labeled arrows are matched (A to A, B to B, etc).

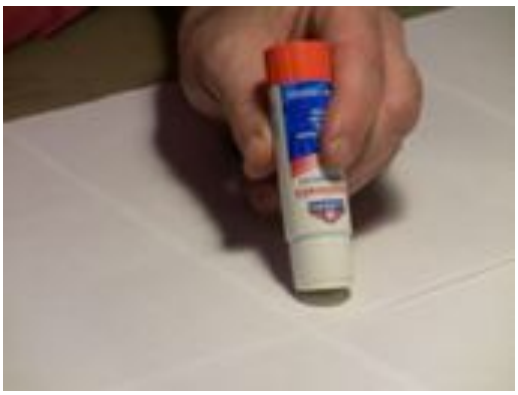
3. With a straightedge and a matte knife, trim just one of the pair of matched edges, cutting precisely along the crop marks.

4. For each matched edge, carefully line up the crop marks exactly.

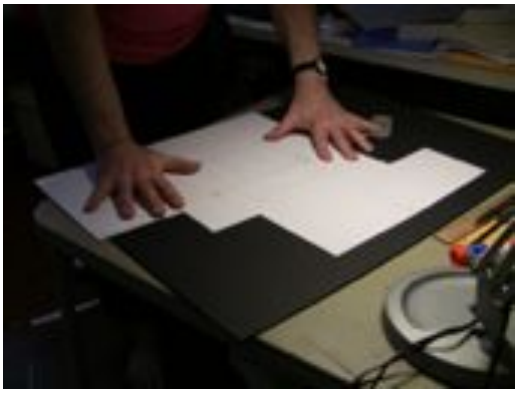
5. Using a short piece of clear tape, tape the two sheets together at the crop mark. Repeat for the other crop mark.

6. After you've lined up and taped the two crop marks, use a longer piece of clear tape along the whole length of the edge.

7. After you've taped all the sheets together, cut away the unused parts of the template, leaving a 1 inch border all around.



8. Turn the template over and, using a Repositionable Glue Stick, apply glue across entire surface.



9. Place template onto foam board and press down to adhere, smoothing out any bubbles.

10. Carefully cut along red and blue lines. Red lines are cuts; blue lines should be lightly scored. Try not to overshoot each cut.

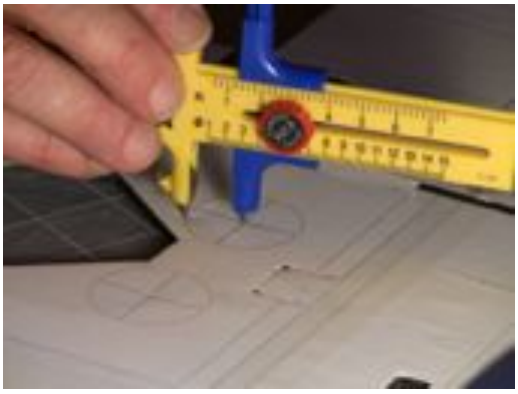
11. Using a T pin or push pin, prick a hole at each tiny black circle. Push the pin all the way through the foam board.

6. Cut through the entire perimeter of the template and separate the viewer from the surrounding foam board.

7. Turn the foam board over and carefully complete short cuts, being careful not to overshoot.

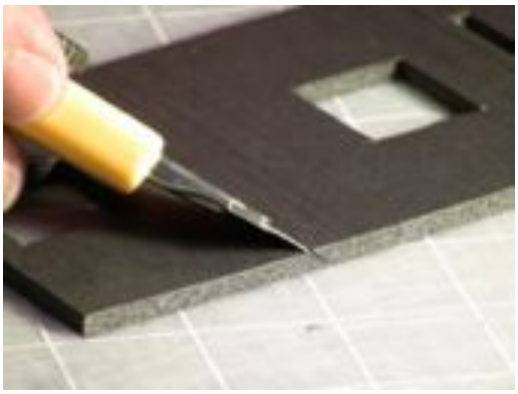
8. Score back of foam board along green template lines; since the template is hidden, use pinpricks as guides for green lines.

9. Press edge of straightedge along magenta lines to make a crease.



10. Adjust Xacto Compass Cutter to exact diameter of each circle and carefully cut out circle (press lightly and go around circle multiple times to make a smooth cutout).

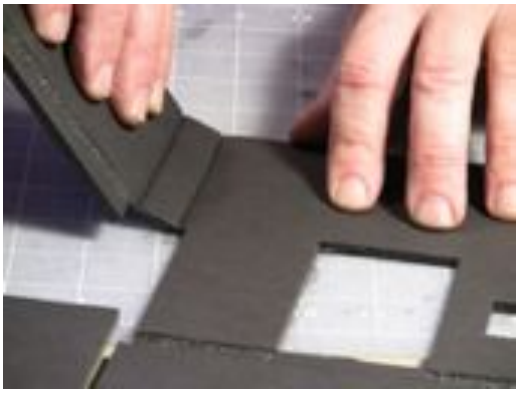
11. Remove template paper from foam board.



12. Make two 45 degree cuts for each v-channel. Be careful not to cut through paper on opposite side.

13. Cut out all v-channels. Be careful to leave center tab intact along top of front panel.

14. Cut out v-channels on back surface along bottom of front panel.



15. Fold along each each crease 90 degrees (magenta lines on template)

16. Fold down two flaps on either side of front panel (scored from back) 180 degrees. For Android viewer, there are several layers for the flaps to accomodate various phones.

17. Secure the flaps with double sided tape.

18. Besides the main viewer, there is a small separate piece that holds the two lenses. Cut out the two (slightly larger) circles with the Xacto Compass Cutter.

19. Push the lenses out of their magnifier housing by pressing downward with both thumbs.

20. If you are unable to push out the lenses with your thumbs, fold up a paper towel to protect the lenses and give them a firm tap with a hammer.

21. Fold the front of the viewer down from the top, being careful not to bend the tab. Then fold up the upper front layer so that the eye holes match.

22. Place the lenses in the middle front layer, with the flatter side of the lenses up (facing the outside of the viewer). Slide the middle layer over the tab.

23. Secure the three layers of the front panel with double sided tape and press them firmly together.

24. Bend the back panel down and fold the side extensions back and push them through the slot in the back panel.

25. Fold the side extensions around the edge of the back slot and carefully push the side tabs through the side slots

26. Your FOV2GO viewer is now fully assembled and ready for your phone.

27. Slide your phone in carefully. The top of the phone should be to the left (so that the camera lines up with the cutout on the back).

28. Fold the lower panel over to secure the phone in place, and push the tab through the slot.

Turn on your phone, load up an FOV2GO application and get immersed! The viewer is designed to be held with two hands, using your thumbs on the lower area of the screen for interaction.

FOV2GO is a project of the MxR Lab at USC.

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