## INSTRUCTIONS TO ASSEMBLE THE SPECTROGRAPH

You have been given a cut-out of a spectroscope with a small grating. Follow the instructions below to assemble the spectroscope:

1. Separate the cut-out from the page carefully.

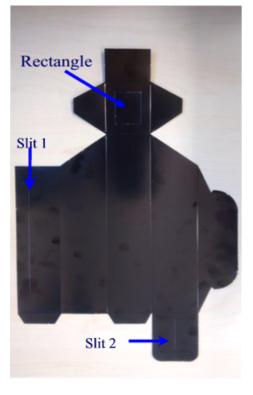


Fig (a)





- 2. Position the cut-out as shown in fig (a). Use a ruler and fold along the vertical lines. Insert the flap into Slit 1 to make a box and secure the flap using some tape. (See fig (b))
- 3. Now close the flap that has Slit 2 cut into it. Secure the open edges of the flap with a tape as shown in fig (c). Make sure that the tape does not cover the slit.



Fig (c)

4. Remove the rectangle marked in fig (a). You will be placing your grating here.

5. Before placing the grating, use a ruler and bend along the edges of the flap.

6. Carefully remove the grating from the plastic cover (avoid making finger prints) and place it as shown in fig (d). Secure the grating with tape. (You may need someone's assistance for this).



Fig (d)



Fig (e)

- 7. Once the grating is secure, fold the flaps outside the box. Secure them with tape as shown in fig (e).
- 8. The spectroscope is now ready. To observe a spectrum, place your eye/camera at the grating.
- 9. Keep Slit 2 in horizontal position. Point the slit to any light source and observe its spectrum. The spectrum will be seen on the inner black surface of the box, below Slit 2.
- 10. The light should be coming through the slit. If there are edges or holes open along the box, then you must seal them. You can use the left over black paper and tape to do so.