

Spectroscope

Code: SEP 205A



This ultra-low cost spectroscope uses a DVD (or CD) as a reflection diffraction grating. The DVD is constrained at the optimum angle inside a black box (assembled as indicated in the photographs) and viewed through a circular window.

Assembling the Spectroscope

The spectroscope box is folded with the partial-depth cease cuts on the outside. The photographs illustrate how the box is assembled – finishing with the multiple folds tucked in at the two ends.

Using the Spectroscope

The spectroscope viewing aperture should be brought very close to the eye. A good test is to stand directly under a fluorescent lamp assembly so that light directly enters the slot at the top. You will see a ‘signature’ spectrum for any particular type of lamp –appearing as a distinctive range of colours in bands of different width and brightness.

Very fine Fraunhofer absorption lines can clearly be seen within the spectrum if the spectroscope is used outside. It should not be pointed directly at the sun and gives excellent results (showing Fraunhofer lines) in mildly overcast conditions.



The spectroscope can be turned on its side to direct a vertical light entry slot at point sources of light such as LEDs. This requires some practice since positioning is more critical.

Note: a DVD gives best results, but a CD can be substituted.

