cut

fold down

E

D

fold along dashed line and cut out windows, then unfold

A1

D

C

Tape slit here

A2

fold and cut out window

C

Glue D here

Glue D here

Glue E here

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Glue B here

B

SpectralWorkbench.org

Instructions and usage at PublicLab.org/wiki/paper-spec

This spectrometer can be mounted on a camera phone, laptop, or webcam.

Line up carefully so that the rainbow is in the middle of the image, and tape down firmly so that the spectrometer stays rigid.

PublicLab.org

Papercraft
Spectrometer

Point at a compact fluorescent to calibrate

violet   indigo   blue   green   yellow   orange   red

spectra

intensity

wavelength
(in nanometers)   435   546   mercury spectrum
from CFL

fold up

A3

fold along dashed line and cut out window, then unfold

peel apart

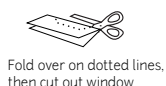Cut DVD, trim and tape onto reverse side here

OSHW
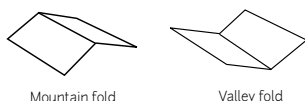#US000089

Instructions
(also see PublicLab.org/wiki/paper-spec)

1. Cut out the shape above along red lines
(these may be grey if printed black & white)

2. Use a butter knife or ball-point
pen to score the dotted lines for folding

Fold over on dotted lines, then cut out window

3. Fold over and cut out the "windows" at A1, A2, & A3

Mountain fold   Valley fold

4. "Mountain" fold along the dotted lines: - - - - - - - -
5. "Valley" fold along dashed lines: — — —

6. Cut, peel, and attach DVD fragment

slit

tape

7. Tape the slit over window A2 (or make your own with two pieces of black paper); trim as needed. See web link for more.

8. Align tabs B, C, D & E and tape them down. Use black sticker dots if available.

You're done! Go to this address to find activities like calibration, different tests you can do, and see the latest design challenges to solve:

PublicLab.org/wiki/paper-spec

Have questions? Ideas for improvement?

Want to collaborate with others? Visit the link above!

Open Source CERN OHL v1.2

This is an open source hardware design developed by contributors like you. We need your help!

Public Lab's

Papercraft
Spectrometer v2.0.5