The Rotato

A simple kit for live demonstration and investigation of light using lightcurves



- The light will shine from the torch, bounce off our object (pretend comet), and then will go into the webcam, which we can use to measure it.
- We will measure the light from our object, then make a change to the object, and measure the light again!

Kit List (Total cost ~65 Euro)

Standard turntables – (~20 Euro)

https://www.amazon.co.uk/gp/product/B08RHZDY29/ref=ppx yo dt b asin title o04 s00?ie=UTF8&th=1

Webcam – any basic webcam will do (less features is actually better)-. The one we have used is no longer stocked, but this looks good, and has a useful tripod too (~20 Euro)

https://www.amazon.co.uk/Microphone-Conferencing-Streaming-Recording-Compatible/dp/B09GFVR22Y/ref=sr 1 3?crid=LSS58BWMASQC&keywords=webcam&qid=1663839052&s=computers&sprefix=webcam%2Ccomputers%2C1 90&sr=1-3

Torch – again most torches will be fine, just watch that on low brightness some led torches flicker. We use this one as it comes with spare rechargeable batteries which can power the turntable (~17 Euro)

https://www.amazon.co.uk/gp/product/B0846KTK6M/ref=ppx yo dt b asin title o02 s00?ie=UTF8&th=1

Any dark non-shiny box will be fine to cut out background. We use this from IKEA (5 Euro)

https://www.ikea.com/es/en/p/drona-box-black-30219281/#content

Optional

Large turntable – if you want to do demonstrations use larger objects this might be useful – (~110 Euro)

Https://www.amazon.co.uk/gp/product/B08SW9P2S9/ref=ppx yo dt b asin title o01 s00?ie=UTF8&psc=1

Objects to rotate

You can use anything you have around! Children's toys are particularly good

Also dirty potatoes, particularly misshapen ones look like asteroids.

Software download

https://allskeye.com/lightcurve-software-tool/

More details, set up guidance (it is really easy to use!), resources and ideas for use in the classroom: https://www.cometchasers.org/home/rotato

