How to make a Light Sensor Counter

A light sensor can be used as a simple counter. When a light source is pointed at the light sensor it will give a high reading but when something passes between the light sensor and the light source, this causes a low reading. Counting the number of times the beam of light is interrupted can be used to indicate the number of things that pass between the light sensor and the light source.

**Ingredients:** 1 cardboard tube from a kitchen roll or toilet roll, 2 or 3 elastic bands, 1 torch.

Place the cardboard tube over the light sensor on the picoboard, and use elastic bands to secure it, as shown in the photograph above. The tube reduces the amount of ambient light that reaches the light sensor, to ensure it responds to the light (or absence of light) it receives from the torch.

To count the number of people walking along a corridor, place the picoboard (connected to a computer) at one side and position the torch at the other side. Configure them so that the torch shines directly into the cardboard tube. The picture above shows the configuration needed.

**Safety:** Please note that you use these resources at your own risk. Correct use of some components requires care.