I would really be grateful if you start to build the Optical Tester, that you go to the Photrio thread and say hi. Also please post photos of your completed tester.

Please refer to Photrio for further build help & to let us know you are building the tester
Build a Optical Shutter Tester Cheap, Easy & it Works | Photrio.com Photography Forums

GitHub repository where all documentation & code can be found. billbill100 (github.com)

Arduino Optical Shutter Photos V1.0   10/08 2024

These photos are taken with a digital camera. It shows what should be seen when looking through the film gate of a film camera from the rear. The camera should have the lens removed.

This tool will only give an indication as to the accuracy of the camera, it is not designed for professional camera alignment. For this see the full Laser shutter design at billbill100 (github.com)

If the shutter is slow, two or more LED rows will be seen. The slower the shutter, the more rows will be seen and gives an indication as to how slow the shutter is.

A correct shutter speed will more often than not show onle row of LEDs. However as the camera is not synced to the matrix, it is possible to see two rows of LEDs. Photos show this.

If the shutter is fast, only one row will be seen, no matter how much faster the shutter is than set speed.

The display will show the humanised speeds of 1/30, 1/60, 1/125, 1/250 etc but the unit is actually running at the actual shutter speeds of 1/30, 1/60, 1/120, 1/240, 1/480, 1/960.

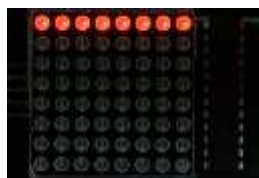Camera & tester set at

1/30s

1/60s

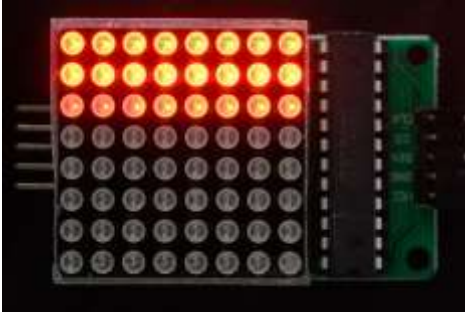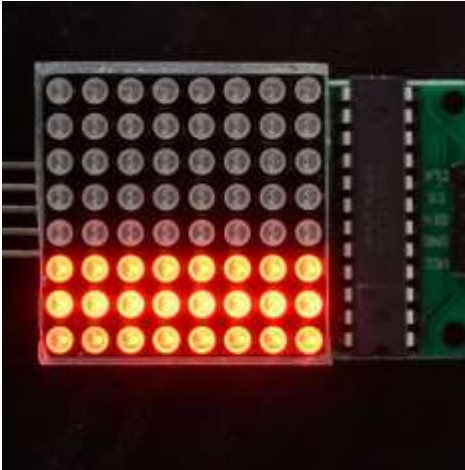

1/125

1/250s

1/500s

1/1000s

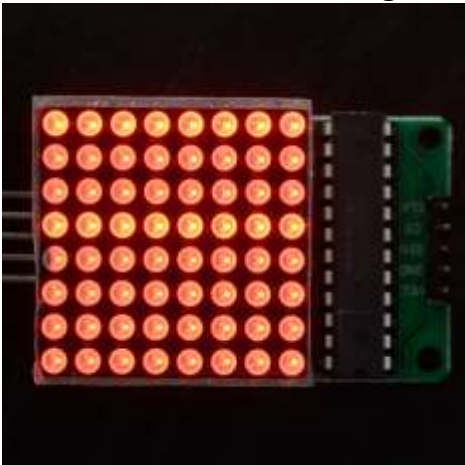Note how the 1/60s and 1/125s have caught the change of LED rows, with one row dimmer than the other.

Here, the tester is running at 1/125s but the camera shutter is running slow, at 1/60s

Here the tester is set to 1/250s but the camera shutter is running slow at 1/60s

Here, the tester is running at 1/1000s but the camera shutter is running slow at 1/60s

Change Log
V 1.0