



SoSLUG - GPIO Starter Kit Worksheet - Random lights

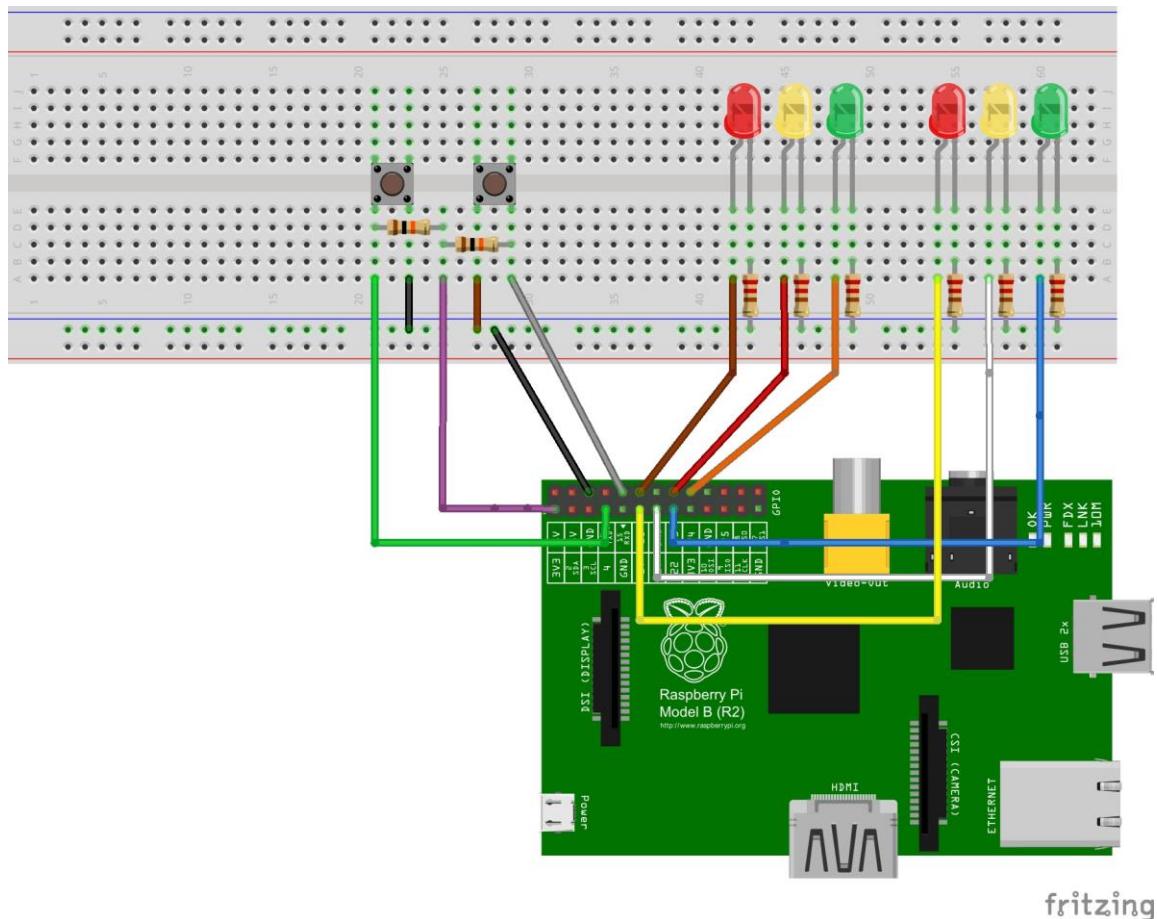
Southend-on-Sea Linux
Users Group (SoSLUG)
<http://www.soslug.org/>

OBJECTIVE

In this project we are going to use six LED's to create a flashing light display. It is going to randomly turn on one of the six LED's for a short period of time, turn it off, wait a short while and then turn on another LED on a random basis. It will do this 100 times with a 1 second interval.

HARDWARE

For this project we will need two of each Red, Yellow and Green LED's and six 220 Ω resistors arranged in a line as shown. Also add the push buttons and 10k Ω as we will expand the random flash project once we have got the principle design working. Arrange the components as shown here.



DEVELOPMENT

Now that you have a working version that goes through 100 random flashes, see if you can make the program work indefinitely.

Use the push buttons to control the speed. Pushing button 1 once will slow the speed by 0.1s each push and button 2 will increase the speed by 0.1s per push.