Experiment No: 11

Aim: Create a simple web interface for Raspberry-Pi/Beagle board to control the connected LEDs remotely through Interface.

Theory:

WiringPi:

WiringPi a PIN based GPIO access library written in C for the BCM2835 used in the Raspberry Pi. It's released under the GNU LGPL V3 license & is usable from C, C++ & RTB as well as many other languages with suitable wrappers.

Install WiringPi

WiringPi is not included with Raspbian, so to begins, you'll need to download & install it. That means your Pi will need a connection to the Internet - either via ethernet or wifi. We can do using Git to download the latest version. As long as you have Git installed these commands should be all you need to download & install WiringPi

```
Pi@raspberrypi ~ $git clone git://git.drogen.net/../Pi.
Pi@raspberrypi ~ $cd wiringPi
```

GPIO Command Line utility.

Task: Connect the LED GND to shourt Pin GPIO 18 to long Pin.

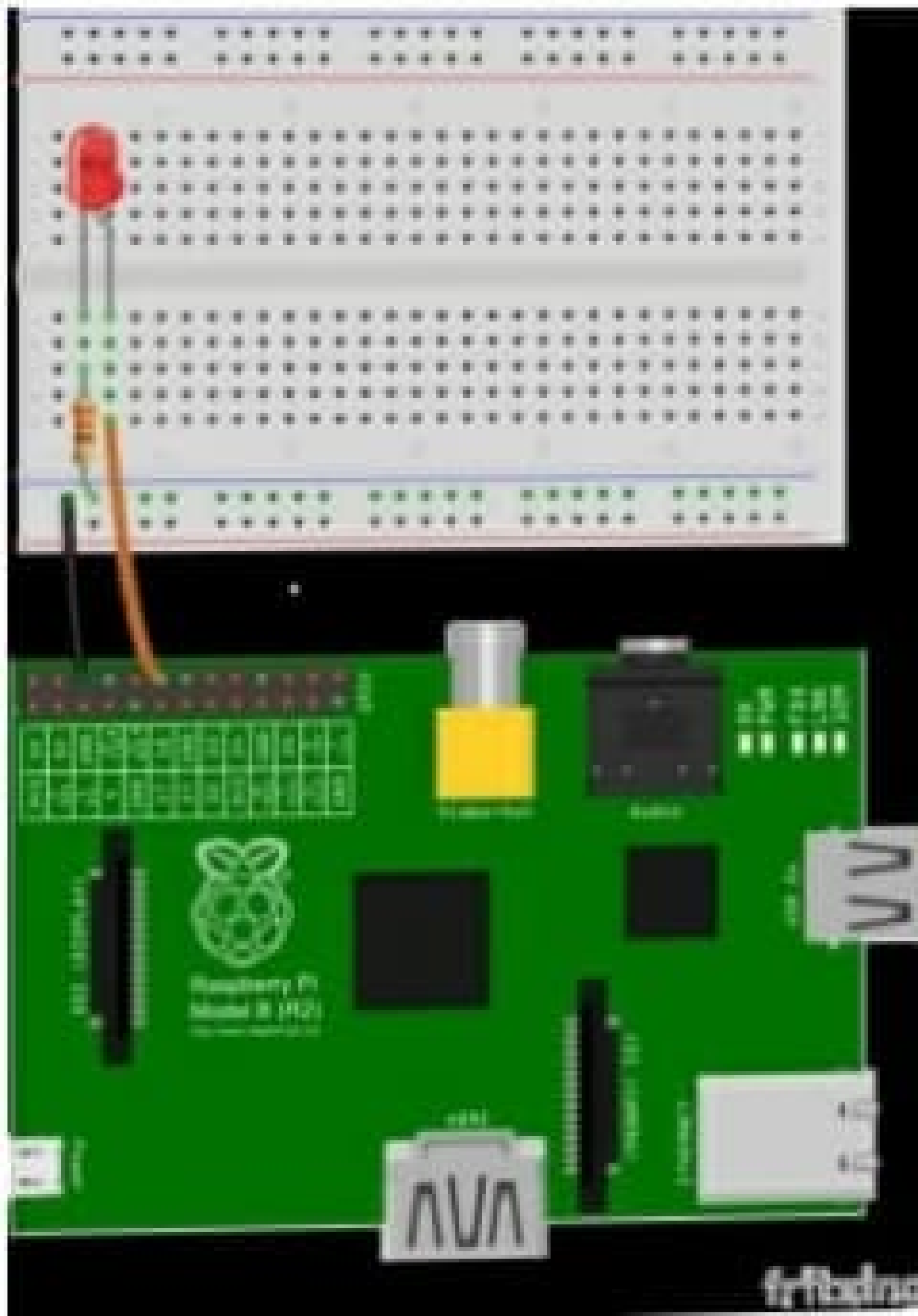
Remember: GPIO18 is Pin 1 in wiringPi GPIO command line utility.

1. Glow the LED by value.
   gpio write 1 1
2. off the LED by
   gpio write 1 0

Web interface to LED

1. Create the front page using HTML which contains two buttons to put the LED in off or ON state.
2. Control the data i/p from button using PHP page

fig.



Conclusion:

Thus, we have created simple web interface for Raspberry-Pi/Beagle board to control the connected LEDs remotely through the interface.