

Experiment No-10

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DATE:

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Aim: create a simple web interface for Raspberry Pi Beagle board to control the connected LED's remotely through the interface.

Theory

wiringPi

wiringPi is an PIN based GPIO access library written in C for BCM2835 used in the Raspberry Pi. It's released under the GPIO access library LGPL V3 license and is available from C, C++ and RTB (BASIC) as well as many other languages with suitable wrappers.

Install wiringPi

wiringpi is not included with Raspbian, so to begin, you'll need to download and 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 latest version.

As long as you have git installed, these commands should be all you need to download and install wiringPi

```
pi@raspberrypi ~ $ git clone git://git.dranon.net/wiringPi
```

```
pi@raspberrypi ~ $ cd wiringPi
pi@raspberrypi ~/wiringPi $ ./build
```

GPIO Command Line Utility

Task: connect the LED GND to short pin GPIO18 to long pin.

Remember: GPIO18 is pin1 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 on or off.
2. Control the data i/p from button using PHP page.

Conclusion → Thus, we have created simple web interface for Raspberry Pi / Beagle board to control the connected LED's remotely through the interface.