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AIM: Create a simple web interface for Raspberry Pi Beagle board to control the connected LEDs remotely through through the interface.

Theory:

Wiring Pi

Wiring Pi is a PIN based GPIO access library written in C for the BCM2835 used in the Rasberry Pi. Its released under the GNU LGPLv3 license and is usable from C, C++ and RTB (BASIC) as well as many other languages with suitable wrappers.

Install wiringPi

wiringPi is not included with Rasptian so to begin you 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
wiring Pi : Pi@ raspberry~ $ git clone git ://git: dragon.net/ wiring Pi
@raspberry~ $ cd wiringPi Pi@raspberrypi -~/wiring/wiringPi $./build.

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GPIO Command Line Utility

Task: connect the LED and GND to short Pin GPIO18 to long pin

Remember: GPIO18 is PIN 1 in wiringPi

1. GPIO command line utility
   Glow the LED by value
   gpio write 1
2. off the LED by
   gpio write 10

Web Interface to LED

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