

# Accessing GPIO pins on Raspberry Pi

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# What is GPIO?



# What is GPIO?

- ① Stands for General Purpose Input Output where external hardware can be connected



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- 2 The external hardware can be the input or output device



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- Input Device

Example: Switch, Sensors, Keyboard etc...



# What is GPIO?

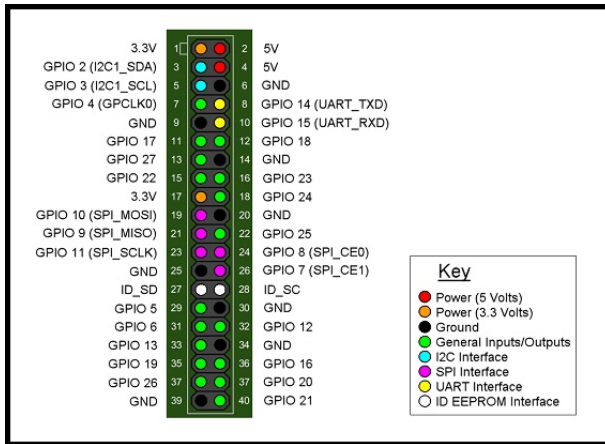
- ❶ Stands for General Purpose Input Output where external hardware can be connected
- ❷ The external hardware can be the input or output device
  - Input Device  
Example: Switch, Sensors, Keyboard etc...
  - Output Device  
Example: Buzzer, LCD, Motors, LED etc...



# Raspberry Pi Pinouts



# Raspberry Pi Pinouts





# Experiment



# Experiment

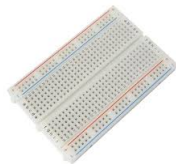
## Interfacing an LED with the Raspberry Pi.



# Hardware Required for the experiments:



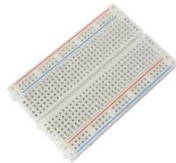
# Hardware Required for the experiments:



## 1 Breadboard



# Hardware Required for the experiments:



① Breadboard

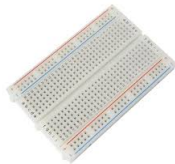


② LED



# Hardware Required for the experiments:

① Breadboard



② LED



③ 330 ohm resistor



# Connections:

- ① Anode of the LED is connected to pin no. 35 (i.e. GPIO 19 pin)



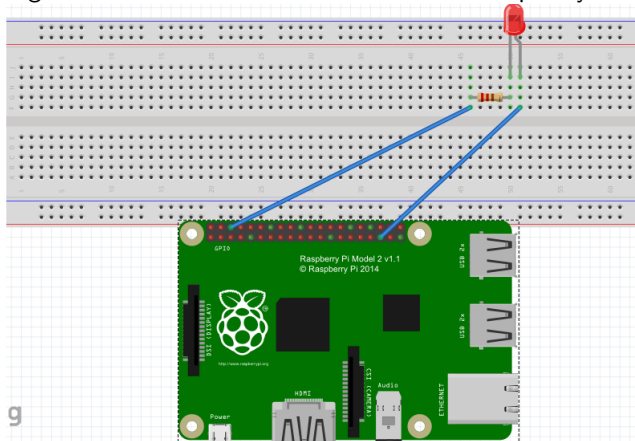
# Connections:

- ➊ Anode of the LED is connected to pin no. 35 (i.e. GPIO 19 pin)
- ➋ Cathode of the LED is connected to a resistor(330 ohms) which is in turn connected to GND pin on R-Pi.





- 1 Figure shows the connections of LED and Raspberry Pi.



# Problem Statement

**Turn on the LED for 1 second and then turn it off for 1 second and repeat the process continuously.**



# Exercise



# Exercise

## Controlling a led using a push button



# Thank You!

Post your queries on: <http://qa.e-yantra.org/>

