Lab 4 BITS 3533 Wireless Network and Mobile Computing Sem 1 2021/2022 (Group)

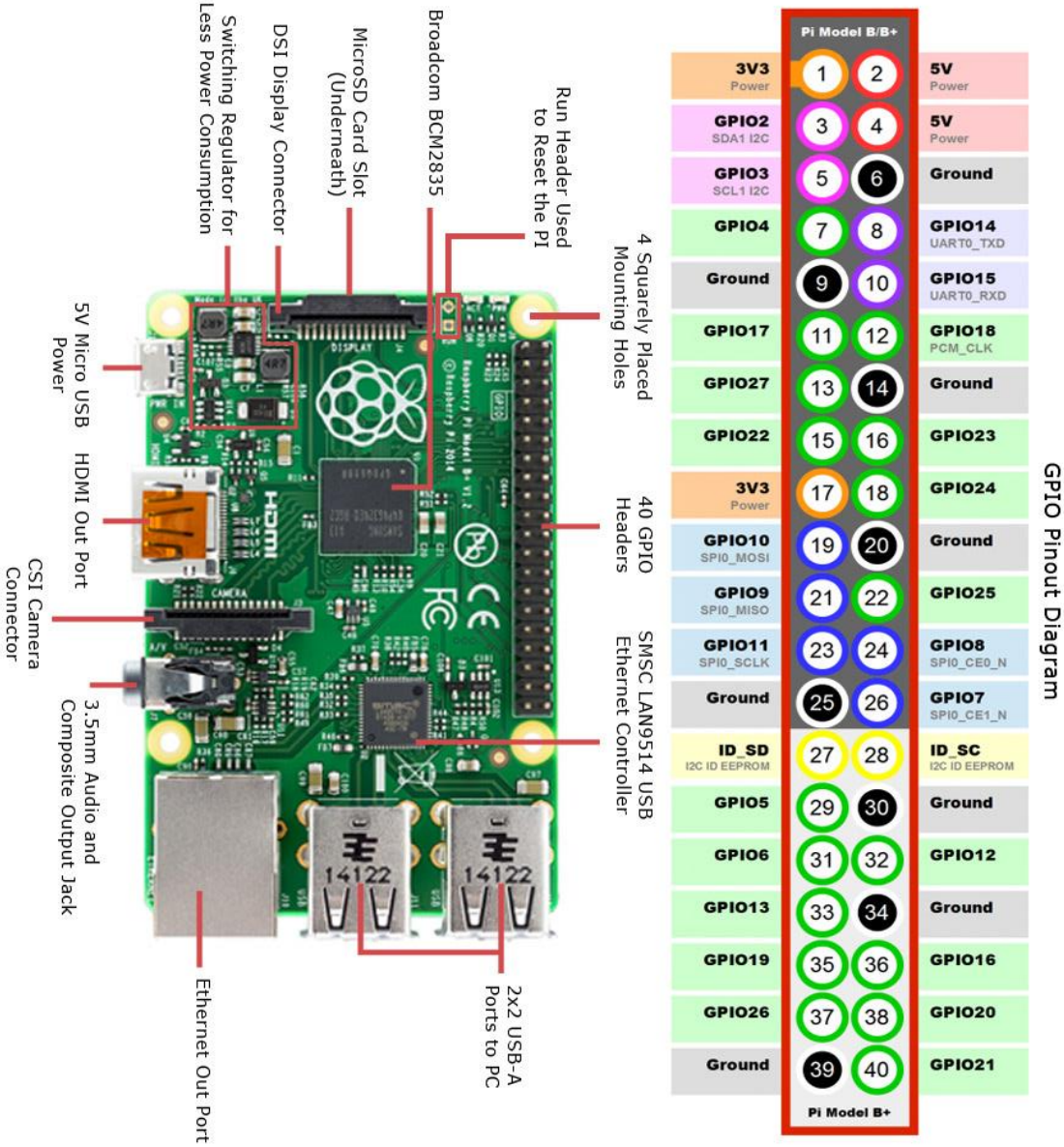
Learning Outcome

At the end of this lab session, students are able to

- Understand GPIO embedded in Raspberry Pi
- Integrate input device (LED) with Raspberry Pi using GPIO

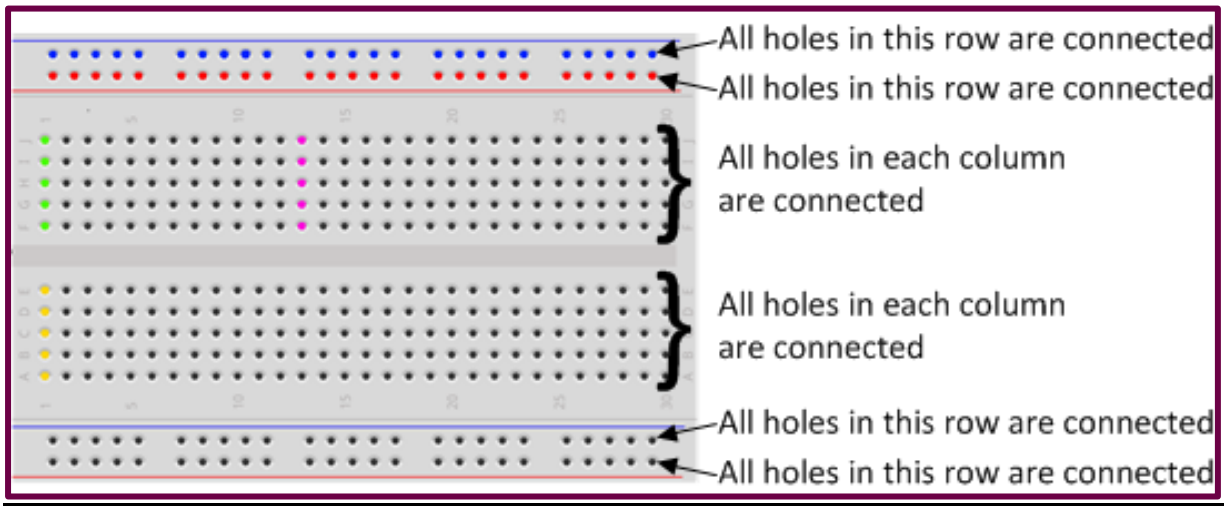
GPIO in Raspberry Pi

Raspberry Pi has a set of General-Purpose Input/Output (GPIO) pins along the top edge of the board. These can be used for connecting and communicating with all manner of electronic components, acting as a physical interface between the Raspberry Pi and the outside world.



Breadboard

A breadboard (sometimes called a plugblock) is used for building temporary circuits. It is useful to designers because it allows components to be removed and replaced easily. It is useful to the person who wants to build a circuit to demonstrate its action, then to reuse the components in another circuit.



Equipments

- Raspberry Pi
- Breadboard
- LED

Task

Work in team. Perform the following hands on:

1. Hands On 1: ON OFF LED
2. Hands On 2: Blinking LED
3. Hands On 3: Traffic Light

Write report based on the following items:

1. Steps during hands on.
2. GPIO – LED connection design
3. Python Code with explanation

Submission

Submit the report by 11:59pm, 4/10/2022