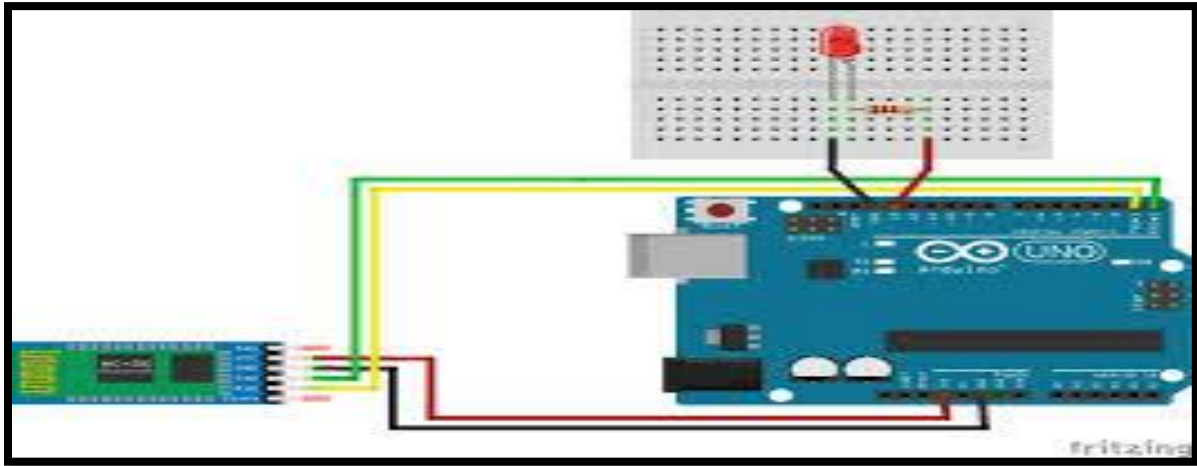


## **Experiment 1.** Control LED using Bluetooth (Smart Phone).

Circuit Diagram:



Theory:

In this experiment the transmitter (Tx) pin of the Bluetooth module is connected to the receiver (Rx) pin of the Arduino as because we are transmitting signal from mobile through antenna and receiving it in the Bluetooth IC through antenna and further signal is transmitted to the Arduino.

Learning and observation :

We use serial ports for receiving signals through Bluetooth as because they have unique functionality i.e., 1 and 0.

Problems and troubleshooting:

- Not selecting the correct port.
- Improper connections.
- Code was not proper at first.
- Syntax problems.
- Thinking about solution was a challenge.

Precautions:

- Wiring should be proper.
- Proper port should be choosed.
- Problem uploading to arduino.
- Properly check the p&n junction while connecting high and low voltage.
- Proper syntax must be kept in mind as a semicolon may give errors.
- Use proper brakets while using loops.

Learning outcomes:

We use serial ports for receiving signals through bluetooth as because they have unique functionality I.e, 1 and 0.