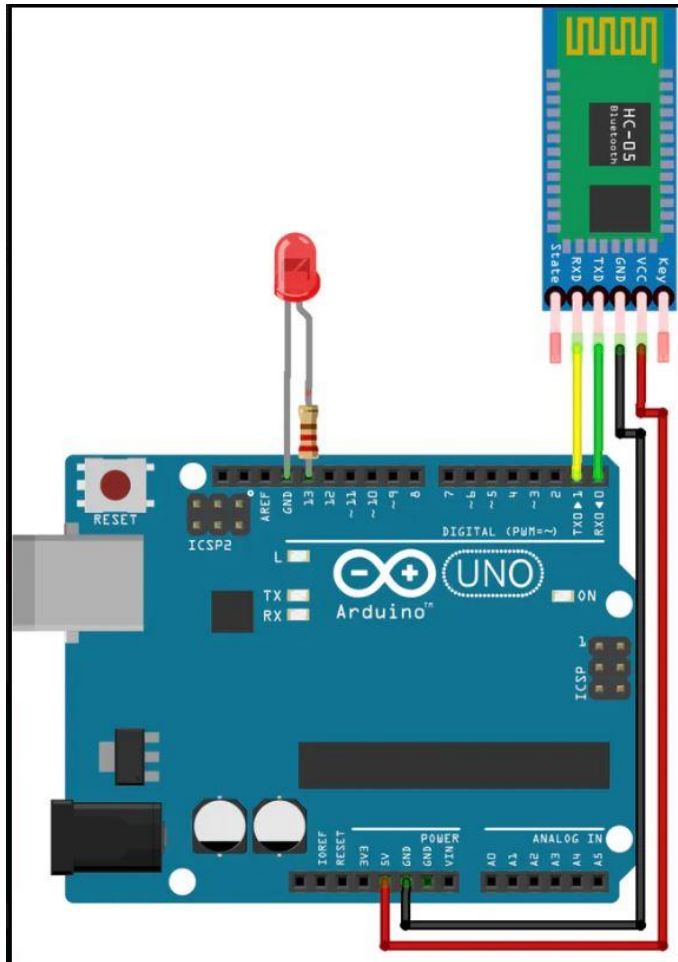


Exp 4

Circuit Diagram



Theory

Concept Used:

Various concepts are used in this exp as listed:

1. Concept of Bluetooth.
2. Interface of Bluetooth with the Arduino UNO.
3. Concept of Grounding.

Learning and Observations:

In this exp we learnt about:

1. Transmission phone to the Bluetooth module.
2. Receiving from phone to the Bluetooth.
3. We learnt about basic algorithms for using Bluetooth.
4. Output current for our bluetooth module which we used in our circuit is 600mA per channel.
5. Peak Output current for our Bluetooth module is 1.2A per channel.

Observation:

1. The data we are receiving from our phone is either 1 or 0.
2. In we change the value in the Serial.begin(9600), then we are changing the data rate transmit or receive from or to the Bluetooth Module.
3. We use in our code Serial.available is we don't use this command then due to the electromagnetic radiation in our surrounding, Bluetooth continuously receiving some signals.

Problem and Troubleshooting:

1. Uploading the code while the Tx and Rx pin of bluetooth Module is connected to the Tx and Rx pin of the Arduino uno.
2. The cable is working properly.
3. Bluetooth is not connected to phone.

Precautions:

1. Your bluetooth module should be connected to your phone only.
2. Connections should be proper.
3. Upload of code should be done only when the Tx and the Rx pin of the bluetooth module and the Arduino UNO is disconnected.

Learning Outcomes:

1. Writing basic algorithms which is used with the bluetooth module.
2. Application of the Bluetooth module.
3. We learnt about the transfer rate of Bluetooth module.