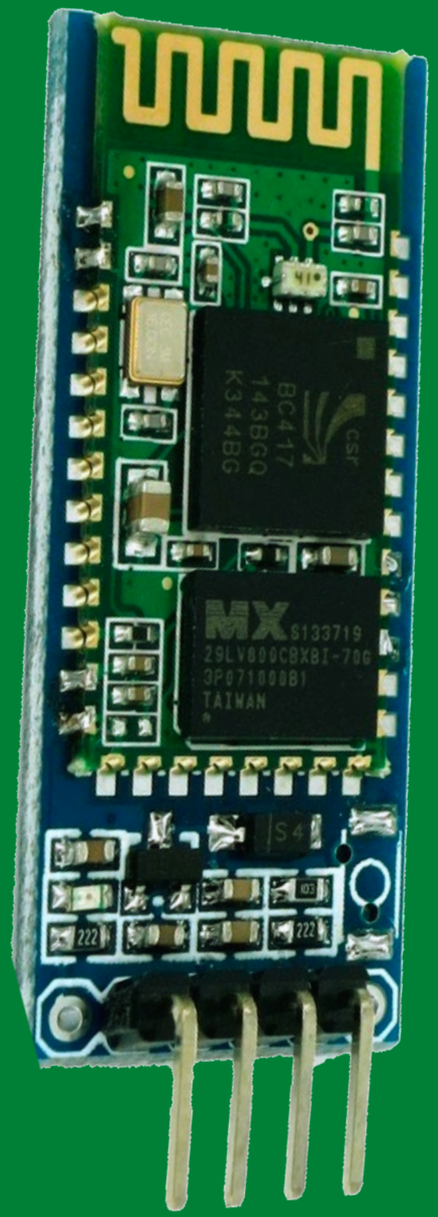


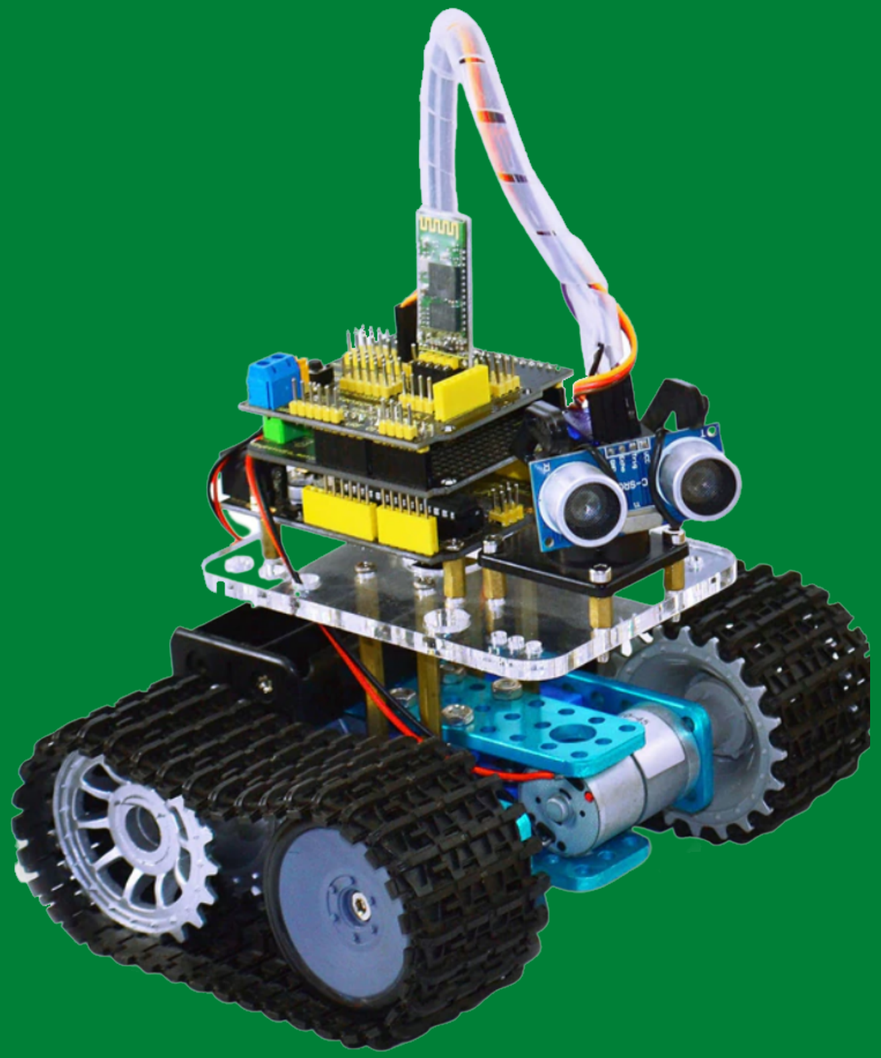
Bluetooth Module

Day 5

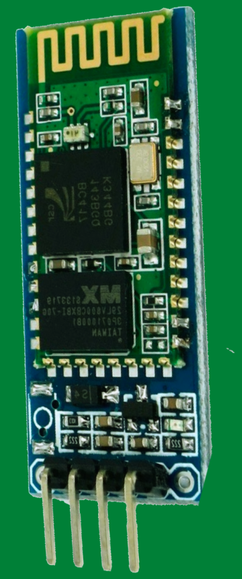
Presented by :

Sadanand Paneru

Treasure, Robotics Club Purwanchal Campus



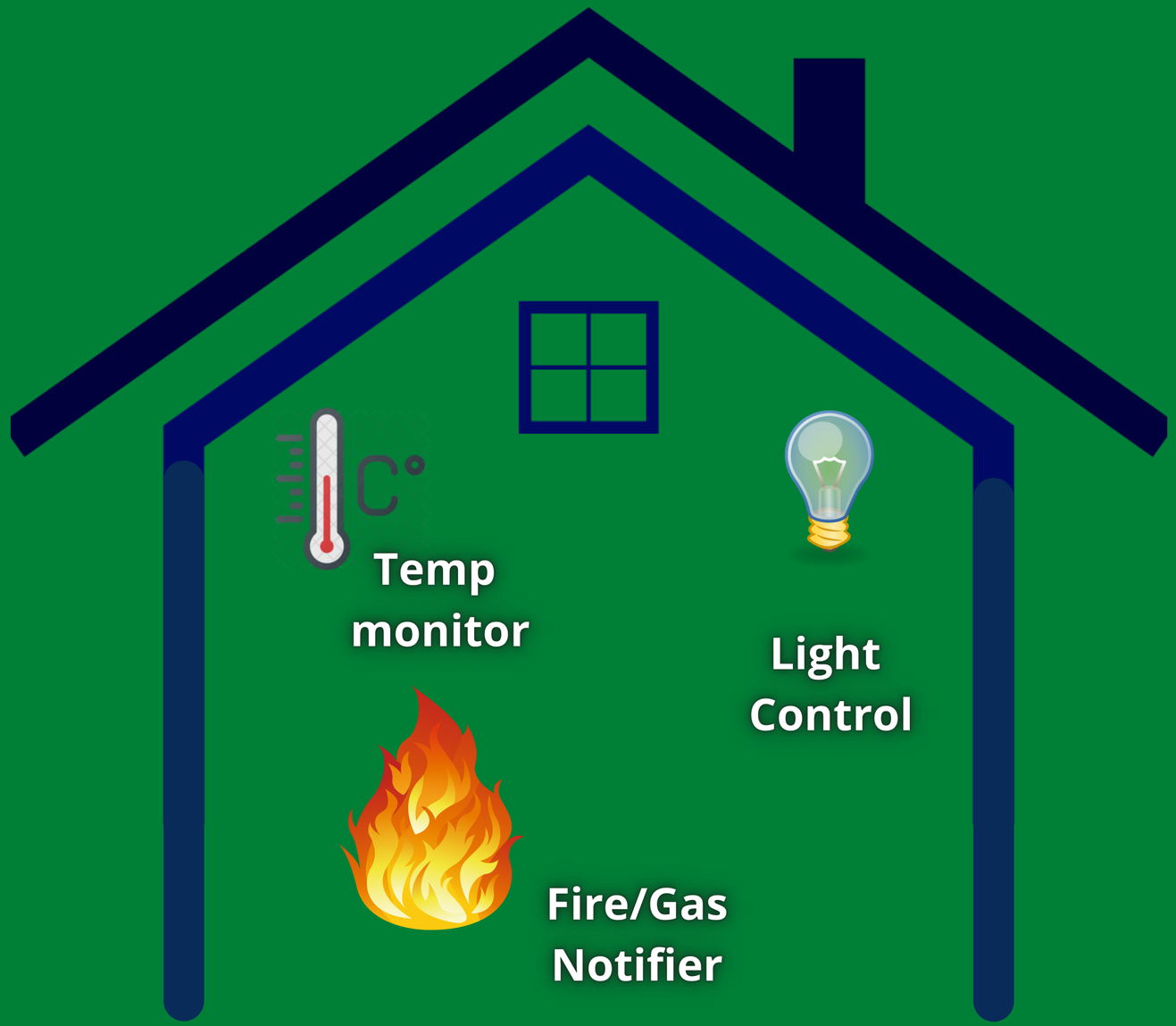
How we control our system manually?

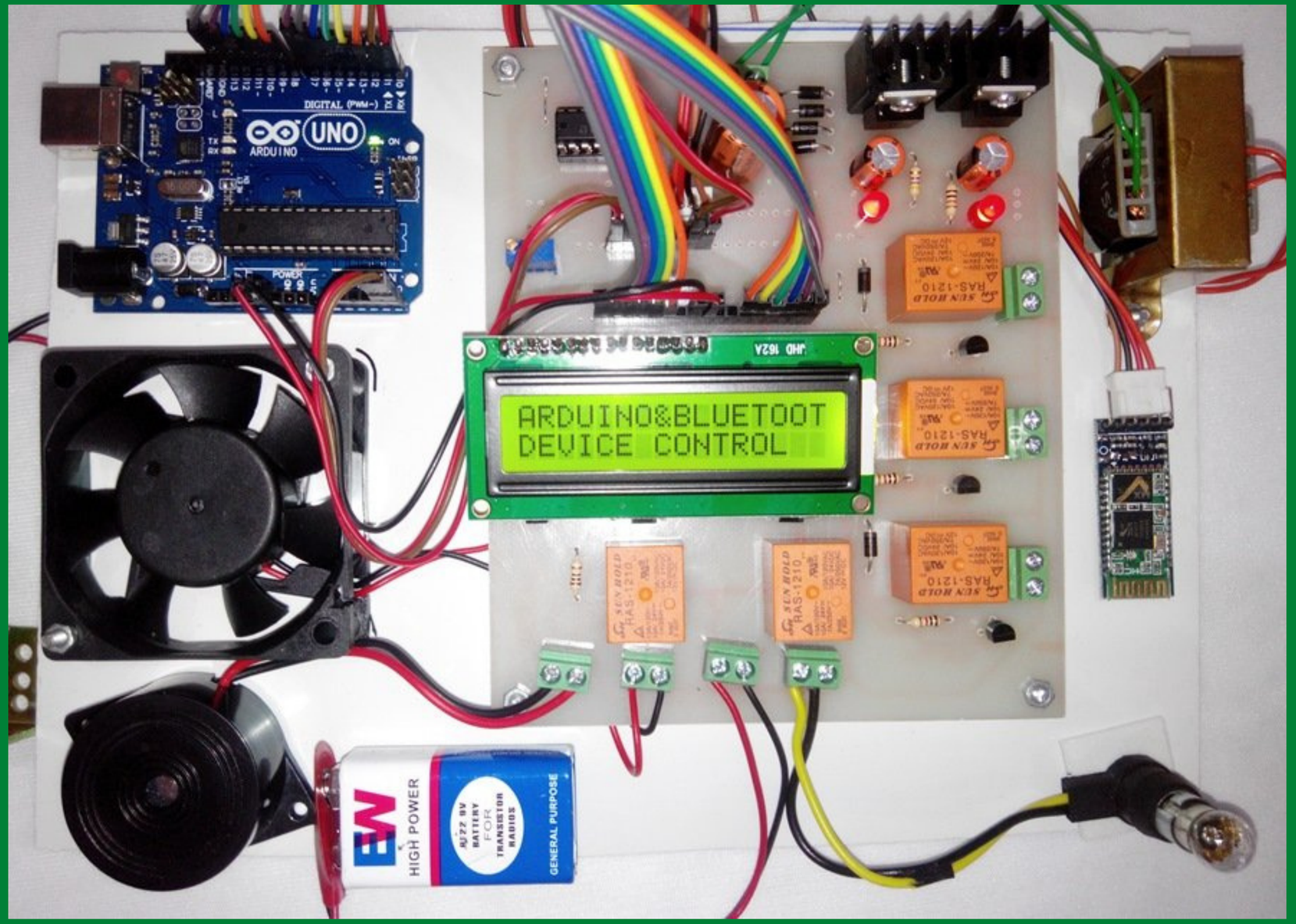


HC-05

Application

1. Wireless communication between two microcontrollers
2. Communicate with Laptop, Desktops and mobile phones
3. Wireless Robots
4. Home Automation


Temp
monitor
Light
Control
Fire/Gas
Notifier



Home Automation

Pin Digram

1. **Enable / Key**- This pin is used to toggle between Data Mode (set low)

   and AT command mode (set high). By default it is in Data mode

2. **Vcc**- Powers the module. Connect to +5V Supply voltage

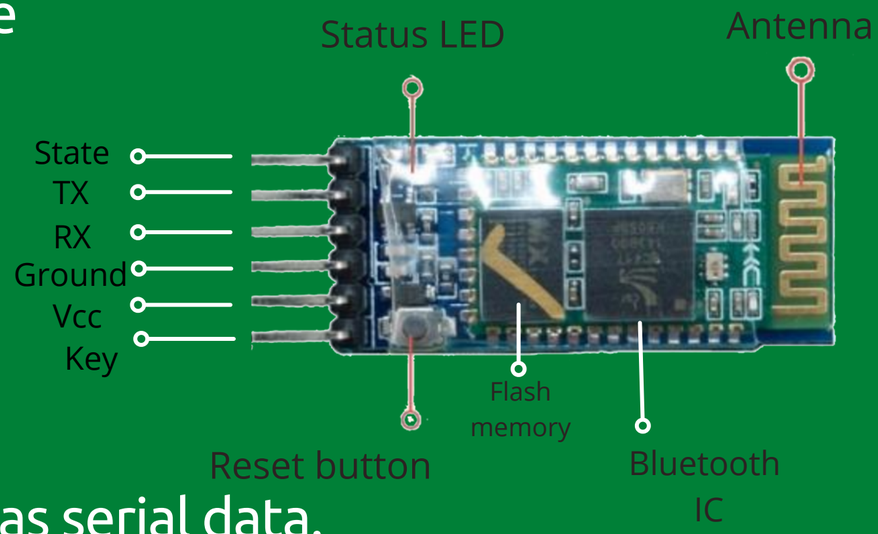
3. **Ground**- Ground pin of module, connect to system ground.

4. **TX – Transmitter**- Transmits Serial Data.

   Everything received via Bluetooth will be given out by this pin as serial data.

5. **RX – Receiver**-Receive Serial Data. Every serial data

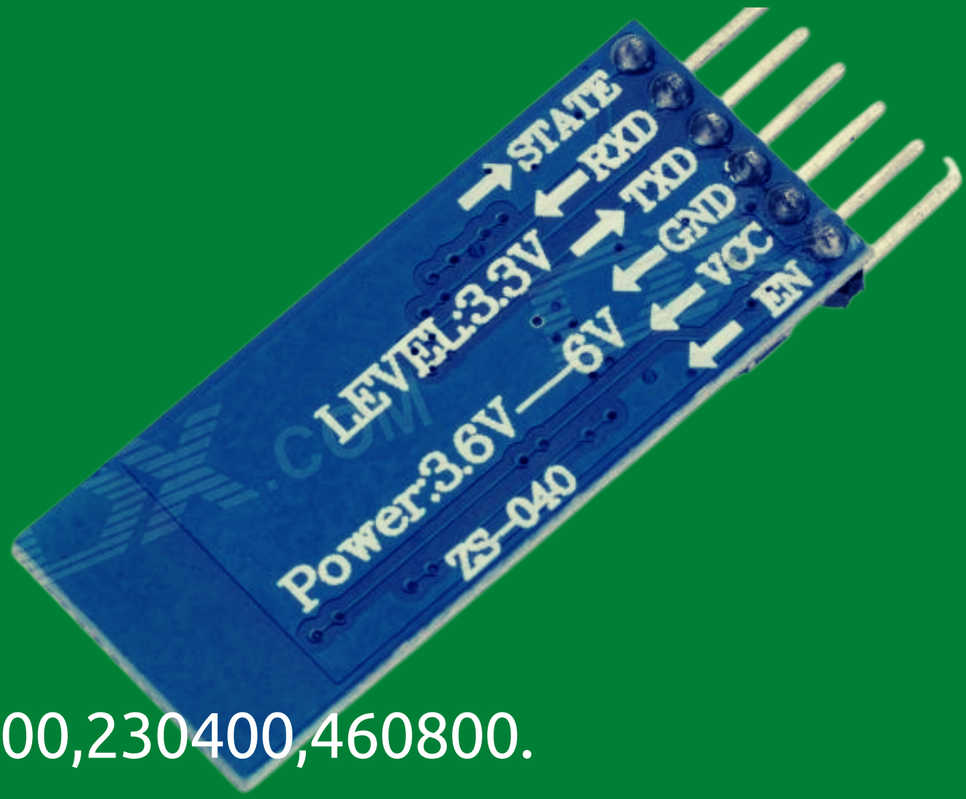
   given to this pin will be broadcasted via Bluetooth

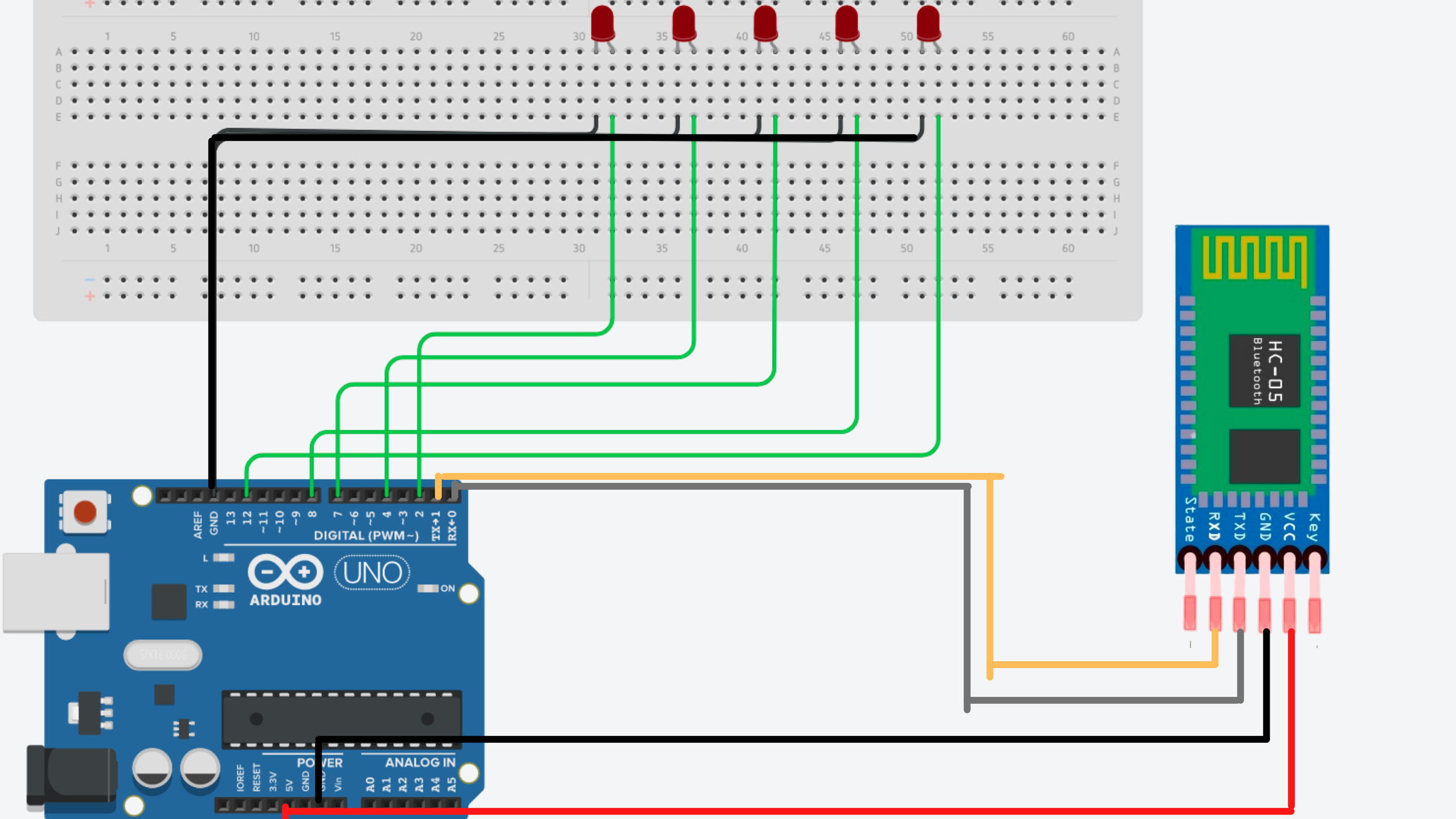


6. **State**- The state pin is connected to on board LED, it can be used as a feedback to check if Bluetooth is working properly.
7. **LED**- Indicates the status of Module
   - Blink once in 2 sec: Module has entered Command Mode
   - Repeated Blinking: Waiting for connection in Data Mode
   - Blink twice in 1 sec: Connection successful in Data Mode
8. **Button-** Used to control the Key/Enable pin to toggle between Data and command Mode

Technical Specfication

- Operating Voltage: 5 volt
- Operating Current: 30 mA
- Works with serial communication (USART)
- It can easily interface with Mobile
- Can operate in Master, Slave or Master/Slave mode
- Supported baud rate: 9600,19200,38400,57600,115200,230400,460800.




HC-05
Bluetooth
State
RXD
TXD
GND
VCC
Key
ARDUINO
UNO
DIGITAL (PWM~)
POWER
ANALOG IN

Now let's see Demo....

Thank you