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**Assignment-4**

#include "BluetoothSerial.h"

BluetoothSerial SerialBT;

int LED=14;

int trigpin=2;

int echopin=16;

int a=4;

int b=2;

void setup()

{

pinMode(echopin,INPUT);

pinMode(trigpin,OUTPUT);

pinMode(LED,OUTPUT);

Serial.begin(115200);

SerialBT.begin("ESP32test"); //Bluetooth device name

Serial.println("The device has started, now you can pair it with bluetooth!");

}

void loop()

{

int Data= (SerialBT.read());

digitalWrite(trigpin,HIGH);

delay(1000);

digitalWrite(trigpin,LOW);

int duration=pulseIn(echopin,HIGH);

int distance=(duration\*0.0343)/2;

Serial.print("the distance is...");

Serial.println(distance);

delay(1000);

if (distance>100)

{

SerialBT.print("Water level is..");

SerialBT.print(distance);

SerialBT.println("EMPTY");

}

else

{

SerialBT.print("water level is");

SerialBT.print(distance);

SerialBT.println("FULL");

}

if (Data==a);

{

digitalWrite(LED,HIGH);

}

if(Data==b)

{

digitalWrite(LED,LOW);

}

delay(20);

}

