

## Assignment 4

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19R11A0499

ECE-2C

Code:

```
#include "BluetoothSerial.h"
BluetoothSerial SerialBT;
int LED=14;
int trigpin=16;
int echopin=4;
int onn=1;
int off=0;
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(" :NULL");
  }
  else
  {
    SerialBT.print("Water level is");
    SerialBT.print(distance);
    SerialBT.println(" :FULL");
  }
  if (Data==onn);
```

```

{
  digitalWrite(LED,HIGH);

}
if(Data==off)
{
  digitalWrite(LED,LOW);

}
delay(20);

}

```

OUTPUT:

```

COM3
the distance is253
the distance is251
the distance is22
the distance is251
the distance is251
the distance is251
the distance is251
the distance is253
the distance is252
the distance is251
the distance is251
the distance is251
the distance is251
the distance is253
the distance is251
the distance is251
the distance is251
the distance is250
the distance is251
the distance is251
the distance is251
the distance is5
the distance is2389
the distance is2389
the distance is2389
the distance is2389
the distance is2389
the distance is251
the distance is251
the distance is251
the distance is251
the distance is253
the distance is251
the distance is251
the distance is252
the distance is251
the distance is251
the distance is251
the distance is251
the distance is252
the distance is251
the distance is251
the distance is251
the distance is251
the distance is253

```

App Output:

9:21 PM 0.9KB/s



Screen1

## GCTC APP

CONNECTED

Sensor Data

water level is252 :NULL

ON

OFF