

DELIVERY OF SPRINT – 1

Team ID	PNT2022TMID31392
Project	Hazardous Area Monitoring for Industrial Plant powered by IoT

```
#include <dht.h>
```

```
#define dht_apin A0
```

```
// Analog Pin 0 is connected to DHT sensor
```

```
#define mqt_apin A1
```

```
// Analog Pin 1 is connected to MQT 135 sensor
```

```
dht DHT;
```

```
int sensorValue;
```

```
void setup(){
```

```
  Serial.begin(9600);
```

```
//Serial port to communicate with Python code
```

```
  Serial1.begin(9600);  
  through Bluetooth (HC-05)
```

```
//Serial port to communicate with Wearable device
```

```
  delay(500);
```

```
//Delay to let system boot
```

```
}
```

```
void loop(){
```

```
  DHT.read11(dht_apin);
```

```
// read analog input pin 0(DHT11)
```

```
  sensorValue = analogRead(mqt_apin);
```

```
// read analog input pin 1(MQ135)
```

```
  //Send Humidity status to Python Code
```

```
  Serial.print("Current humidity = ");
```

```
  Serial.print(DHT.humidity);
```

```
  Serial.print("% ");
```

```
//Send Temperature status to Python Code
Serial.print("temperature = ");
Serial.print(DHT.temperature);
Serial.println("C ");

//Send AirQuality sensor value to Python code
Serial.print(" AirQua=");
Serial.print(sensorValue, DEC);
Serial.println(" PPM");

//Send signals to the Wearable
Serial1.println("H T A");
Serial1.println(DHT.humidity);
Serial1.println(DHT.temperature);
Serial1.println(sensorValue, DEC);

delay(100);                // wait 100 milliseconds for next reading
}
```