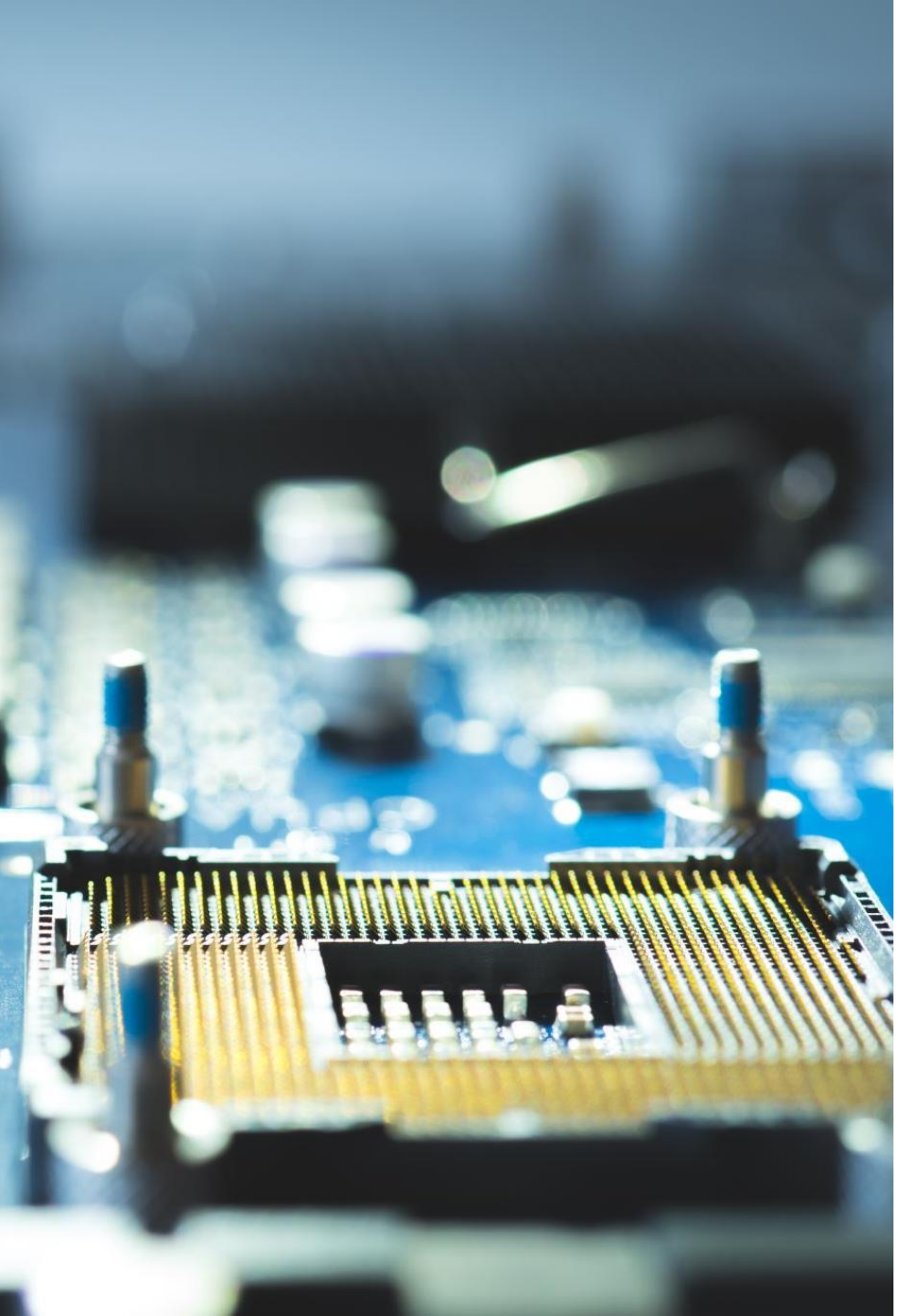
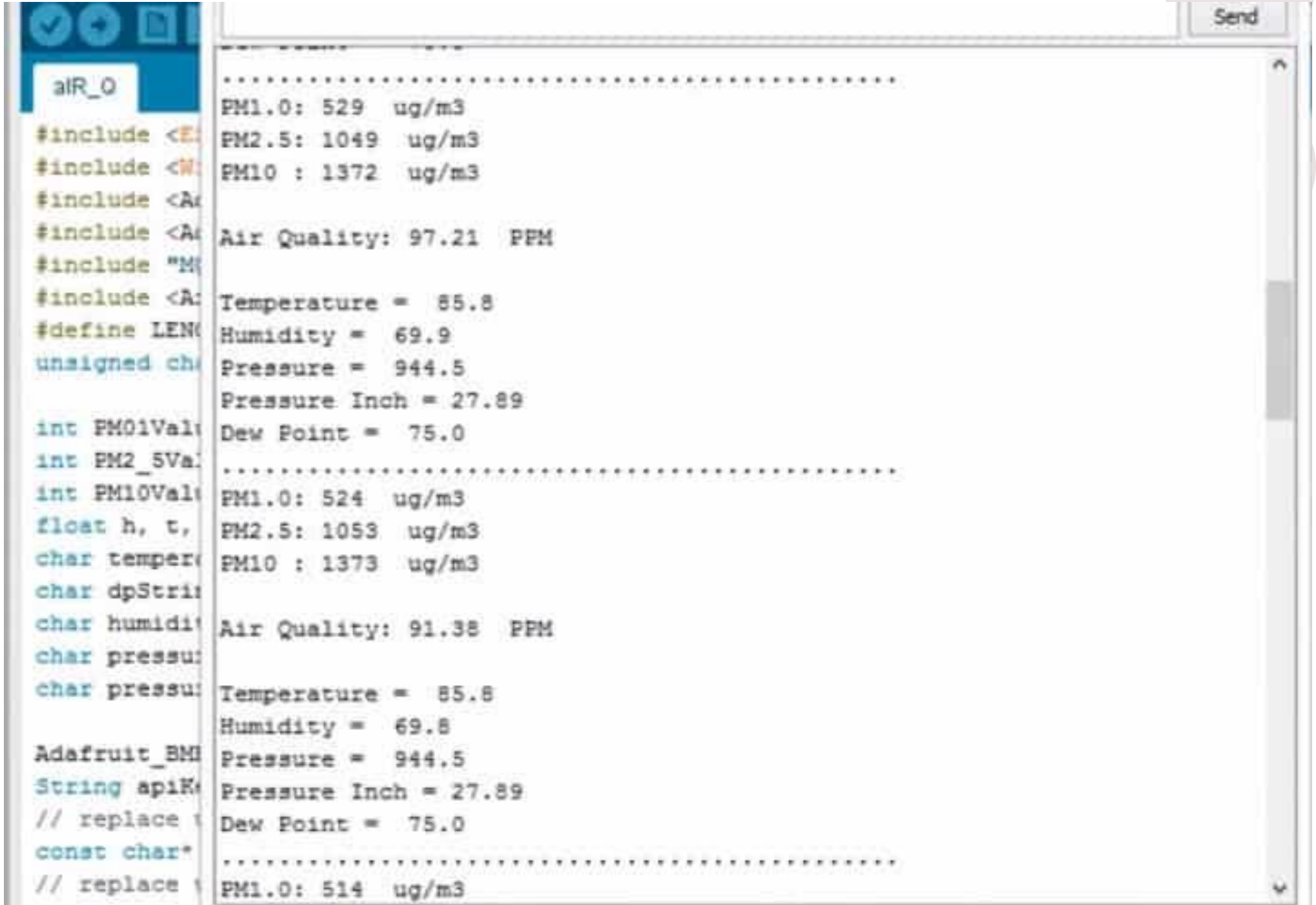
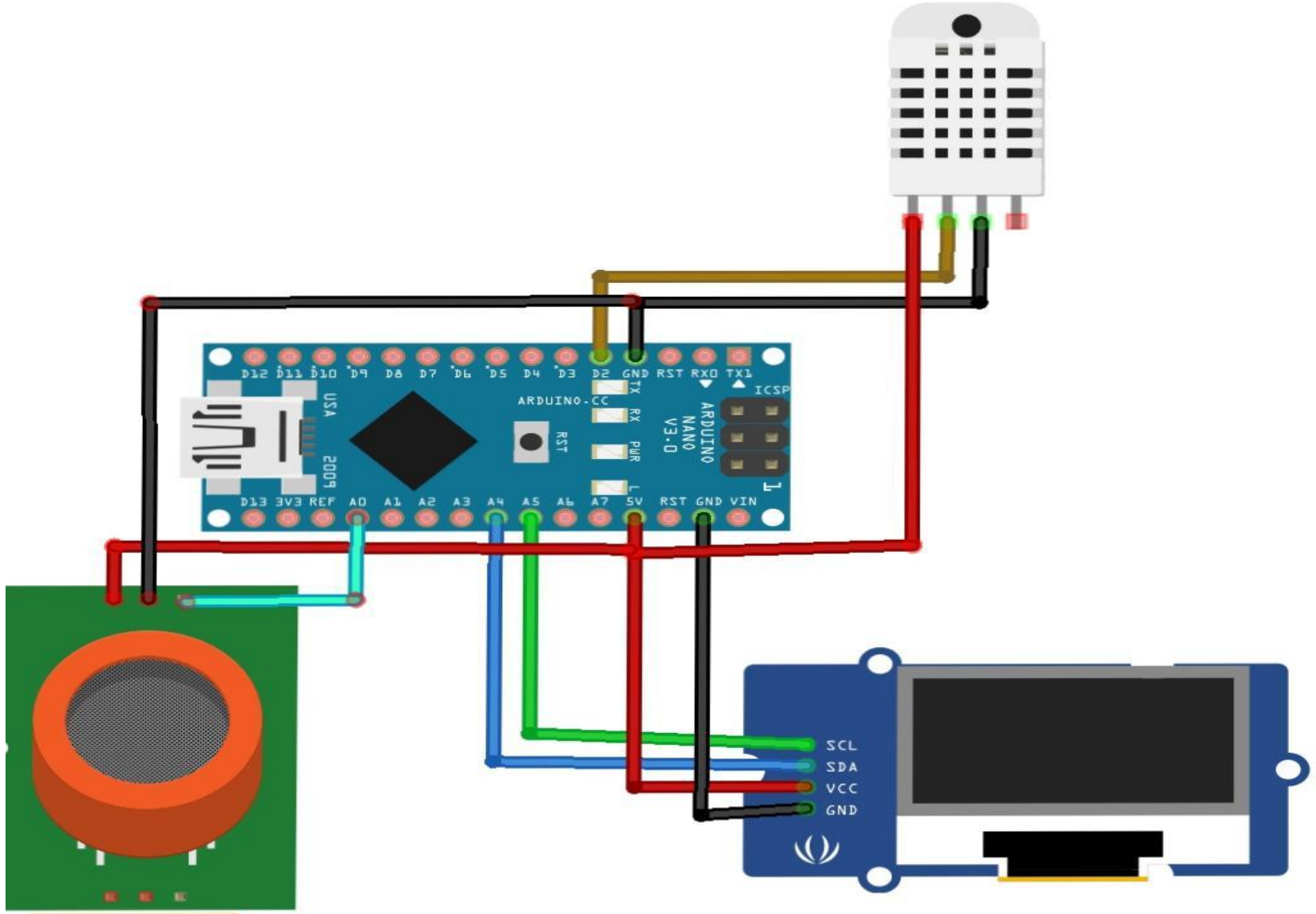
Development phase of environmental monitoring of parks



Working of Arduino for air pollution

- First of all we will connect the ESP8266 with the Arduino.
- ESP8266 runs on 3.3V and if you will give it 5V from the Arduino then it won't work properly and it may get damage.
- Connect the VCC and the CH_PD to the 3.3V pin of Arduino. The RX pin of ESP8266 works on 3.3V and it will not communicate with the Arduino when we will connect it directly to the Arduino.
- So, we will have to make a voltage divider for it which will convert the 5V into 3.3V. This can be done by connecting three resistors in series like we did in the circuit.
- Connect the TX pin of the ESP8266 to the pin 10 of the Arduino and the RX pin of the esp8266 to the pin 9 of Arduino through the resistors.


Send
aIR_Q
#include <E
#include <W
#include <A
#include <A
#include "M
#include <A
#define LEN
unsigned ch
int PM01Val
int PM2_5Va
int PM10Val
float h, t,
char temper
char dpStri
char humidi
char pressu
char pressu
Adafruit_BM
String apiK
// replace
const char*
// replace
.....
PM1.0: 529 ug/m3
PM2.5: 1049 ug/m3
PM10 : 1372 ug/m3
Air Quality: 97.21 PPM
Temperature = 85.8
Humidity = 69.9
Pressure = 944.5
Pressure Inch = 27.89
Dew Point = 75.0
.....
PM1.0: 524 ug/m3
PM2.5: 1053 ug/m3
PM10 : 1373 ug/m3
Air Quality: 91.38 PPM
Temperature = 85.8
Humidity = 69.8
Pressure = 944.5
Pressure Inch = 27.89
Dew Point = 75.0
.....
PM1.0: 514 ug/m3


D12 D11 D10 D9 D8 D7 D6 D5 D4 D3 D2 GND RST RX0 TX1
ICSP
ARDUINO-CC
ARDUINO NANO V3.0
D13 3V3 REF A0 A1 A2 A3 A4 A5 A6 A7 5V RST GND VIN
SCL
SDA
VCC
GND

MQ135

Pollution sensor for arduino

- The MQ135 sensor can sense NH3, Nox, alcohol, Benzene, smoke, CO2 and some other gases, so it is perfect gas sensor for our Air Quality Monitoring Project
- . When we will connect it to Arduino then it will sense the gases, and we will get the Pollution level in PPM (parts per million).