**CODE\_ARUINO.txt**

#include "DHT.h"

#include <Servo.h>

**//les ports des composantes des systèmes.**

#define led1 7

#define led2 6

#define DHTPIN 9

#define DHTTYPE DHT11

**//Déclaration des variables.**

Servo myservo;

int servoPin = 3;

int angle = 0;

String x;

DHT dht(DHTPIN, DHTTYPE);

int digitalSensor = 13;

int analogSensor = A0;

int digitalValue;//mq2

int analogValue;

int digiSensor = 12;

int analSensor = A1;//mq135

int digsensor = 11;

int anasensor = A2;//mq3

const int RELAY\_PIN = 2;

**//fonction setup.**

void setup() {

  Serial.begin(9600);

  pinMode(led1, OUTPUT);

  dht.begin();

  pinMode(digitalSensor, INPUT);

  pinMode(analogSensor, INPUT);

  pinMode(digsensor, INPUT);

  myservo.attach(servoPin);

  myservo.write(angle);

  pinMode(RELAY\_PIN, OUTPUT);

}

**//fonction setup.**

void loop() {

**// Lecture des commandes du port série**

  if (Serial.available() > 0) {

    x = Serial.readString();

    Serial.println(x);

    if (x == "1") {

      digitalWrite(led1, HIGH);

    }

    if (x == "0") {

      digitalWrite(led1, LOW);

    }

    if (x == "2") {

      analogWrite(led2, 255);

    }

    if (x == "3") {

      digitalWrite(led2, LOW);

    }

    if (x == "ouverts") { **// Ouvrir les volets**

      angle = 180 - angle;

      myservo.write(angle);

    } else if (x == "fermés") { **// Fermer les volets**

      angle = 0;

      myservo.write(angle);

    }

    if(x == "allumé")

      {

    digitalWrite(RELAY\_PIN, HIGH); // allume le ventilateur

      }

      else if(x == "eteint")

      {

    digitalWrite(RELAY\_PIN, LOW); // éteint le ventilateur

      }

  }

**// Lecture des capteurs**

  float h = dht.readHumidity();

  float t = dht.readTemperature();

  float f = dht.readTemperature(true);

  if (isnan(h) || isnan(t) || isnan(f)) {

    Serial.println(F("Failed to read from DHT sensor!"));

    return;

  }

  digitalValue = digitalRead(digitalSensor);

  analogValue = analogRead(analogSensor);

  int digiValue = digitalRead(digiSensor);

  int analValue = analogRead(analSensor);

  bool digital = digitalRead(digsensor);

  int analog = analogRead(anasensor);

  float hic = dht.computeHeatIndex(t, h, false);

  String hstring = String(h);

  String tstring = String(t);

  String fstring = String(analogValue);

  String co2string = String(analValue);

  String astring = String(analog);

  Serial.println(hstring + " " + tstring + " " + fstring + " " + co2string + " " + astring);

}