# ARDUINO IDE Programming Bases

1. Complete the meaning with the corresponding words:

The turbidity sensor measures how cloudy or clear water is.  It checks this by using light, depend on the p_____ suspended in the liquid. The unite measure is NTU _____ _____ _____

If the light passes through the sensor, the voltage is _____ but the NTU is _____, but when the light is blocked the voltage is low but the NTU is _____.
Also, the sensor allows changing the signal type between a_____ with different voltage's values and d_____ with just minimum and maximum voltage.
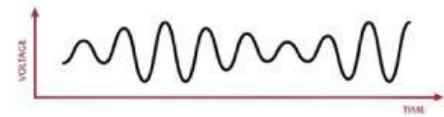
The D_____ is the water temperature sensor and measures the t_____ in the humid environments.  The metal detail is composed to s_____ diode that adapt the voltage flow since the metal is an s_____.  The unite measure is C_____ D_____.

2. Put the respect number according to the connection between sensors and actuators with the ESP32.
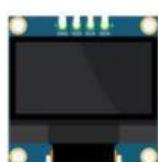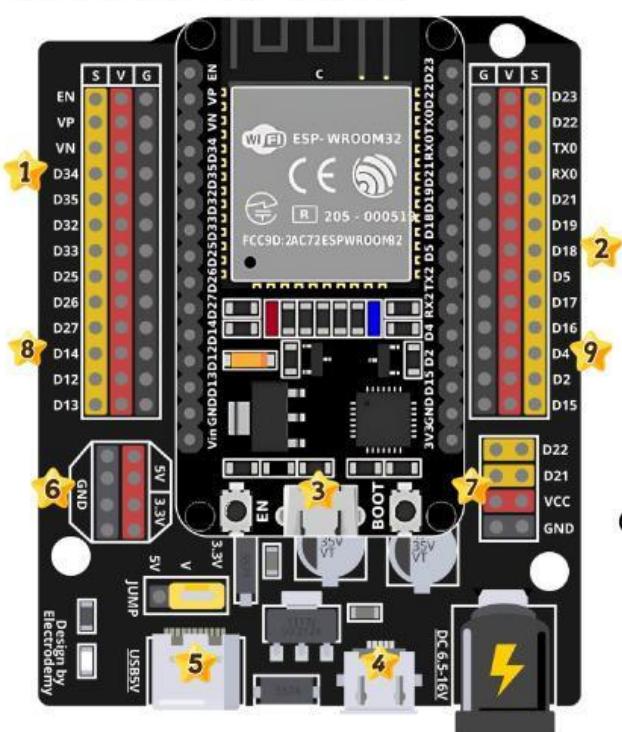
Complete the specific word in the space.

GND

VCC / 3.3V

OUT / S

3. Read the code lines and indicate the respect part of code (use the letters).

**H** HEADER    **VS** VOID SETUP    **VL** VOID LOOP

PART OF CODE

| Code | |
|---|---|
| Serial.begin(115200); | VS |
| OneWire ourWire(4); | |
| float temp; | |
| if (NTU < 0) NTU = 0; | |
| display.println("NTU"); | |
| #include <DallasTemperature.h> | |
| DS18B20.requestTemperatures(); | |
| Serial.print(temp); | |
| display.println(NTU); | |
| displayturbidity (); | |
| Wire.begin(); | |

4. Read the comments and put on the lines the respect function (use the numbers).

COMMENT

| Code | Comment |
|---|---|
| Serial.begin(115200); | 4 |
| OneWire ourWire(4); | |
| float temp; | |
| if (NTU < 0) NTU = 0; | |
| display.println("NTU"); | |
| #include <DallasTemperature.h> | |
| DS18B20.requestTemperatures(); | |
| Serial.print(temp); | |
| display.println(NTU); | |
| displayturbidity (); | |
| Wire.begin(); | |

1 //Lybrary to control the water temperature
2 // Go to the fuction that show the NTU on the OLED
3 //Send the command to read the temperature
4 //Start the serial monitor
5 //Indicate the pin 4 for reading of sensor DS18B20
6 //Start the communication I2C
7 //Variable to save decimals numbers
8 //Show the NTU variable on the OLED
9 //Show the NTU word on the OLED
10 // Show the temperature in the Serial Monitor
11 // Avoid the negatives values