



ARDUINO IDE Programming Bases

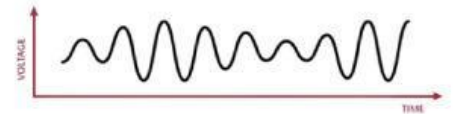
1. Complete the meaning with the corresponding words:



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

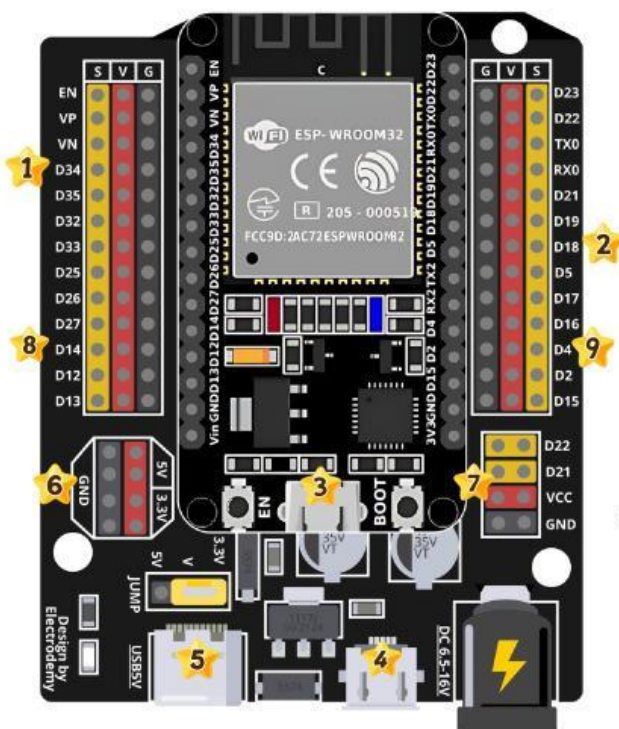
If the light passes through the sensor, the voltage is _____ but the NTU is _____, but when the light is blocked the voltage is low but the NTU is _____.

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

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

	COMMENT
<code>Serial.begin(115200);</code>	4 1 //Library to control the water temperature
<code>OneWire ourWire(4);</code>	2 // Go to the fuction that show the NTU on the OLED
<code>float temp;</code>	3 //Send the command to read the temperature
<code>if (NTU < 0) NTU = 0;</code>	4 //Start the serial monitor
<code>display.println("NTU");</code>	5 //Indicate the pin 4 for reading of sensor DS18B20
<code>#include <DallasTemperature.h></code>	6 //Start the communication I2C
<code>DS18B20.requestTemperatures();</code>	7 //Variable to save decimals numbers
<code>Serial.print(temp);</code>	8 //Show the NTU variable on the OLED
<code>display.println(NTU);</code>	9 //Show the NTU word on the OLED
<code>displayturbidity ();</code>	10 // Show the temperature in the Serial Monitor
<code>Wire.begin();</code>	11 // Avoid the negatives values