ARDUINO IDE Programming Bases

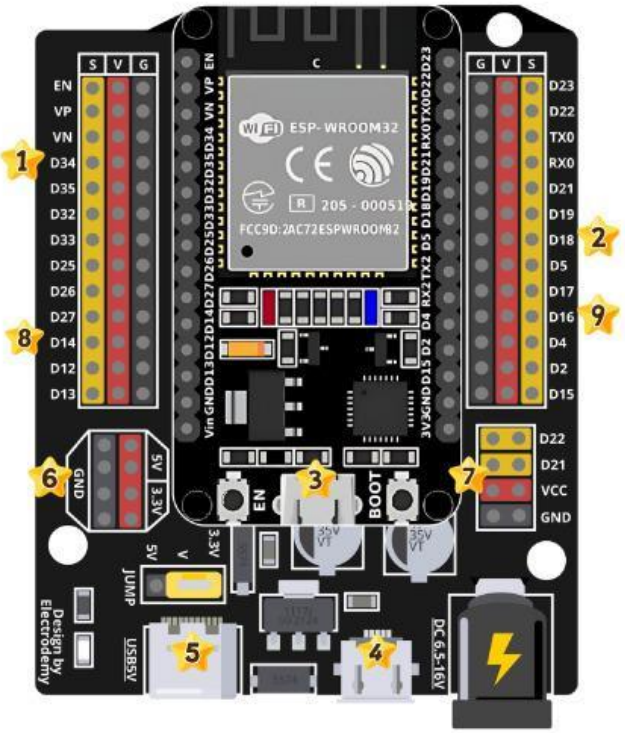
Indicate the interface parts of the Arduino IDE according to the image.

1 → ____ 4 → ____

2 → ____ 5 → ____

3 → ____ 6 → ____

Put the respect number according to the connection between sensor and actuators with the ESP32. and complete the words in the spaces.



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Complete the words in the spaces.

GND ____

VCC / 3.3V ____

OUT / S ____

Read the comments and put on the lines the part of code (use the letters) and the respect function (use the numbers).

H HEADER

VS VOID SETUP

VL VOID LOOP

	PART OF CODE	COMMENT	
`Serial.begin(115200);`	VS	4	1 //Indicate that the buzzer must be in silent
`int notes[] = { 524, 588, 660 };`			2 // Library to the RGB sensor
`noTone(BUZZER);`			3 //Indicate the configuration on the sensor
`pinMode(BUZZER, OUTPUT);`			4 //Start the serial monitor
`#define BUZZER 15`			5 //define the buzzer like actuator
`#include <Adafruit_TCS34725.h>`			6 //Library to comunicate the I2C Module
`uint16_t r, g, b, c;`			7 // Start the sensor TCS34725
`Adafruit_TCS34725 tcs = Adafruit_TCS34725`			8 // Show the values of BLUE
`tcs.begin();`			9 //unsigned number that use sixteen bits
`#include <Wire.h>`			10 //Indicate the pin of the buzzer
`Serial.print(" B: "); Serial.println(b);`			11 //Array with natural numbers

Complete the next structures control

SERIAL MONITOR VALUES

```
R: 160 G: 144 B: 116
R: 159 G: 143 B: 115
R: 160 G: 144 B: 116
R: 175 G: 164 B: 136
```

COLOR DETECTION

Silver

```
if (b ☐ 116 && r☐☐☐☐☐) {
  Serial.println("¡Silver has been detected!");
}
```

```
int melody[] = {
  NOTE_FS4, NOTE_FS4, NOTE_A4,
  NOTE_FS4, NOTE_A4,NOTE_FS4, NOTE_GS4,
  NOTE_GS4, NOTE_GS4, NOTE_A4, NOTE_B4}

for (int note = 0; note☐ ☐ ;☐☐) {
  tone(BUZZER_PIN,☐☐[note], 2000);
  delay (2000);
}
```