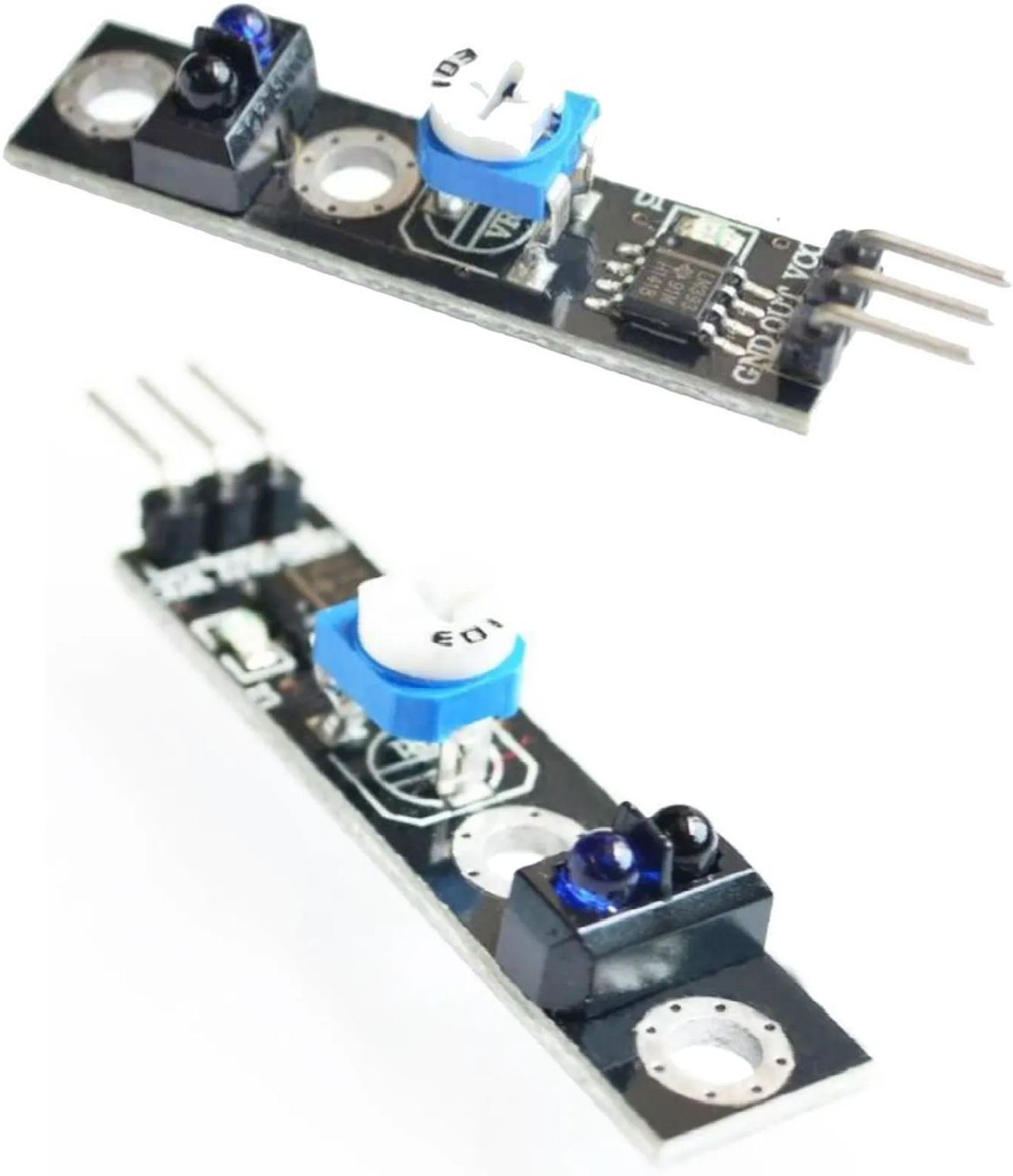
Module suiveur de ligne TCRT5000



1 – Fonction

The line tracking sensor based on TCRT5000 is a type of infrared reflectance sensor, and is commonly used in line following robots, mounted at the bottom of the robot chassis.

The line tracking sensor works by detecting reflected light coming from its own infrared LED and by measuring the amount of reflected infrared light, it can detect transitions from light to dark (lines) or even objects directly in front of it.

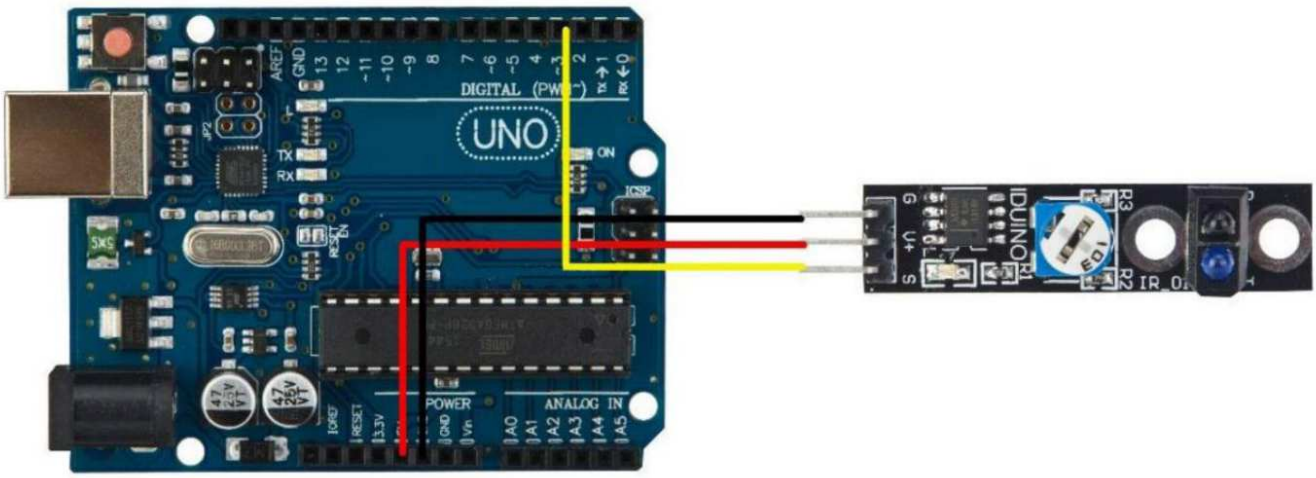
2 – Caractéristiques

- → sensor adopts TCRT5000, high sensitivity
- → sensitivity adjustable by potentiometer
- → Working voltage 3.3 V to 5 V
- → operating current : 20 mA
- → digital switch output (0 and 1)
- → two fixed bolt holes for convenient installation
- → small board PCB size: 42 x 10.5 mm
- → power indicator light (red) and digital switch output indicator light (green)
- → detection reflection distance: 1-25 mm

3 – Brochage

S	digital output (black = low, white = high)
V+	5 VDC power
G	ground

4 – Exemple de câblage et de programme




```
int Led = 13; // variable Led = connected to digital pin 13 (Which is on your VMA100 connected to a LED as well)
int buttonpin = 3; // Variable buttonpin = connected to digital line 3, this is where the VMA326 output has to be connected for this test
int val;
void setup() {
        pinMode(Led,OUTPUT); // declare Led (digital 13) as output
        pinMode(buttonpin,INPUT); // declare buttonpin (digital 3) as input
}
void loop() {
        val = digitalRead(buttonpin); // read the value of buttonpin (digital 3)
        if (val == HIGH) {
                digitalWrite(Led,HIGH);
        } else {
                digitalWrite(Led,LOW);
        }
}
```