

INTRODUCTION TO ARDUINO

Arduino is an open-source platform used for building electronics projects. Consists of both a physical programmable circuit board and an IDE that uses a simplified version of C++, making it easier to learn to program.



IDE ARDUINO

Consist of two parts:

- Setup: Contain all the initial configuration of the board. Ex: pinMode(number, mode).
- Loop: As the name indicates, it contains the code that will loop forever.

```
sketch_apr01a Arduino 1.8.9
                                                        \times
Archivo Editar Programa Herramientas Ayuda
  sketch_apr01a
void setup() {
  // put your setup code here, to run once:
void loop() {
  // put your main code here, to run repeatedly:
                                   Arduino/Genuino Uno en COM4
```

MATERIALS FOR BLUETOOTH ARDUINO CAR















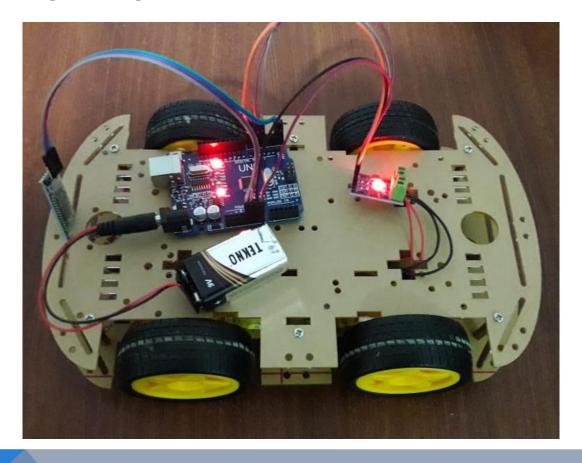
SETUP

```
char command;
const int leftForward = 4, leftReverse = 5, rightForward = 6, rightReverse = 7;
void setup(){
 pinMode(leftForward,OUTPUT);
 pinMode(leftReverse,OUTPUT);
 pinMode(rightForward,OUTPUT);
 pinMode(rightReverse,OUTPUT);
 Serial.begin(9600);
```

LOOP

```
void loop(){
    if(Serial.available()>0){command = Serial.read();Serial.println(command);}
    if(command=='a')
    {digitalWrite(leftForward,HIGH);digitalWrite(leftReverse,LOW);digitalWrite(rightForward,HIGH);
    digitalWrite(rightReverse,LOW);}
    else if(command=='e')
    {digitalWrite(leftForward,LOW);digitalWrite(leftReverse,HIGH);digitalWrite(rightForward,LOW);d
    igitalWrite(rightReverse,HIGH);}
    else if(command == 'd')
    {digitalWrite(leftForward,LOW);digitalWrite(leftReverse,LOW);digitalWrite(rightForward,HIGH);d
    igitalWrite(rightReverse,LOW);}
    else if(command == 'b')
    {digitalWrite(leftForward,HIGH);digitalWrite(leftReverse,LOW);digitalWrite(rightForward,LOW);d
    igitalWrite(rightReverse,LOW);}
    else if(command == 'c')
    {digitalWrite(leftForward,LOW);digitalWrite(leftReverse,LOW);digitalWrite(rightForward,LOW);di
    gitalWrite(rightReverse,LOW);}
    delay(70);
```

FINAL MONTAGE



GENERAL INFORMATION

Meetings: Place:

Monday 20:00 – 20:00 B-101

Facebook Group: CLUB DE DESARROLLO DE VIDEOJUEGOS E INTELIGENCIA ARTIFICIAL YACHAY TECH



GitHub: https://github.com/yachay-tech-ai