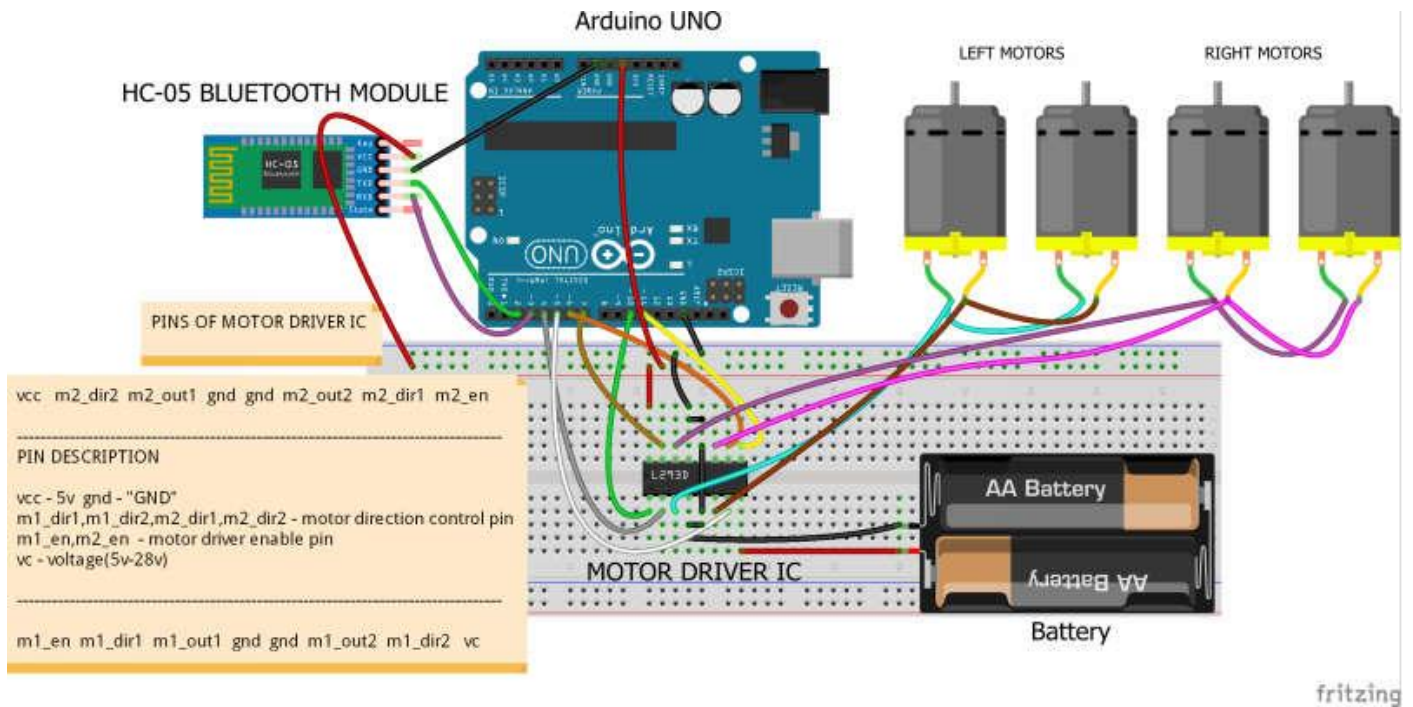


Projecte-8: BlueTooth-4



Podem connectar fàcilment el nostre robot al nostre telèfon intel·ligent mitjançant [Dabble](#). Abans de treballar amb qualsevol dels mòduls, heu de connectar el Bluetooth en què esteu treballant. Hi ha molts mòduls disponibles a l'aplicació per a altres funcionalitats.



```
/* for more information about gamepad go to https://thetempedia.com/docs/dabble/game-pad-module/
 * in this project we will be using HC-05 bluetooth module
 * for arduino "UNO" use bluetooth module buadrate below 38400
 * HC-05 bluetooth module ----> arduino "UNO"
 *     Tx     ----> 2
 *     Rx     ----> 3

#define CUSTOM_SETTINGS
#define INCLUDE_GAMEPAD_MODULE

//include Dabble app library
#include <Dabble.h>

#define motor1_en 10 // motor 1 enable pin
#define motor2_en 11 // motor 2 enable pin
#define motor1_dir1 4 // motor 1 input1 (InputA)
#define motor1_dir2 5 // motor 1 input2 (InputA)
#define motor2_dir1 6 // motor 2 input1 (InputB)
#define motor2_dir2 7 // motor 2 input2 (InputB)

void setup()
{
    // put your setup code here, to run once:

    Serial.begin(9600); // start serial communication using 9600 baudrate
    Dabble.begin(38400); // Enter your bluetooth module baudrate
    // NOTE : for arduino "UNO" use bluetooth module buadrate below 38400
    for(unsigned int i=4;i<8;i++)
    {
        pinMode(i,OUTPUT); // declaring input pins of motor1 and motor2 as a output pin
    }
    pinMode(motor1_en,OUTPUT); // declaring enable pins of motor as a output
    pinMode(motor2_en,OUTPUT);

}
```

void loop()

```
{  
  // put your main code here, to run repeatedly:  
  
  Dabble.processInput(); //To refresh the data that the arduino UNO got from the mobile app, you have to use the following  
  line of code
```

```
  if (GamePad.isUpPressed()) // if UP is pressed in the gamepad then move robot forward  
  {  
    Serial.print("UP");  
    forward();  
  }  
  
  else if (GamePad.isDownPressed()) // if DOWN is pressed in the gamepad then move robot backward  
  {  
    Serial.print("DOWN");  
    backward();  
  }  
  
  else if (GamePad.isLeftPressed()) // if LEFT is pressed in the gamepad then move robot LEFT  
  {  
    Serial.print("Left");  
    left();  
  }  
  
  else if (GamePad.isRightPressed()) // if RIGHT is pressed in the gamepad then move robot RIGHT  
  {  
    Serial.print("Right");  
    right();  
  }  
  
  else // stop the robot  
  {  
    Serial.println("strop");  
    Stop();  
  }  
}
```

```
void forward() // function for robot forward movement
```

```
{  
  analogWrite(motor1_en,255);  
  analogWrite(motor2_en,255);  
  digitalWrite(motor1_dir1,HIGH);  
  digitalWrite(motor1_dir2,LOW);  
  digitalWrite(motor2_dir1,HIGH);  
  digitalWrite(motor2_dir2,LOW);
```

```
}  
void backward() // function for robot backward movement
```

```
{  
  analogWrite(motor1_en,255);  
  analogWrite(motor2_en,255);  
  digitalWrite(motor1_dir1,LOW);  
  digitalWrite(motor1_dir2,HIGH);  
  digitalWrite(motor2_dir1,LOW);  
  digitalWrite(motor2_dir2,HIGH);
```

```
}
```

```
void left() // function for robot left movement
{
  analogWrite(motor1_en,255);
  analogWrite(motor2_en,255);
  digitalWrite(motor1_dir1,LOW);
  digitalWrite(motor1_dir2,HIGH);
  digitalWrite(motor2_dir1,HIGH);
  digitalWrite(motor2_dir2,LOW);
}

void right() // function for robot right movement
{
  analogWrite(motor1_en,255);
  analogWrite(motor2_en,255);
  digitalWrite(motor1_dir1,HIGH);
  digitalWrite(motor1_dir2,LOW);
  digitalWrite(motor2_dir1,LOW);
  digitalWrite(motor2_dir2,HIGH);
}

void Stop() // function for no movement
{
  analogWrite(motor1_en,0);
  analogWrite(motor2_en,0);
  digitalWrite(motor1_dir1,LOW);
  digitalWrite(motor1_dir2,LOW);
  digitalWrite(motor2_dir1,LOW);
  digitalWrite(motor2_dir2,LOW);
}
```

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