

Oficina CP 2009 :
Exemplo PWM Roboduino

```
int dir_pin_a = 4;
int speed_pin_a = 10;
int dir_pin_b = 8;
int speed_pin_b = 9;

int i;

void setup()
{
  pinMode(dir_pin_a, OUTPUT);
  pinMode(speed_pin_a, OUTPUT);
  pinMode(dir_pin_b, OUTPUT);
  pinMode(speed_pin_b, OUTPUT);

  Serial.begin(9600);

  //make the motors rotate in opposite directions so show that they're working
  independantly.
  digitalWrite(dir_pin_a, HIGH);
  digitalWrite(dir_pin_b, LOW);
}

void loop()
{
  Serial.println("Speeding motors up to max.");

  for (i=0; i<=255; i++)
  {
    analogWrite(speed_pin_a, i);
    analogWrite(speed_pin_b, i);

    delay(100);
  }

  Serial.println("Motors at max.");
  delay(1000);
  Serial.println("Slowing down to 0;");

  for (i=255; i>=0; i--)
  {
    analogWrite(speed_pin_a, i);
    analogWrite(speed_pin_b, i);

    delay(100);
  }
}
```

```
}  
  
Serial.println("Motors stopped.");  
  delay(1000);  
  Serial.println("Switching directions.");  
  
digitalWrite(dir_pin_a, !digitalRead(dir_pin_a));  
digitalWrite(dir_pin_b, !digitalRead(dir_pin_b));  
}
```