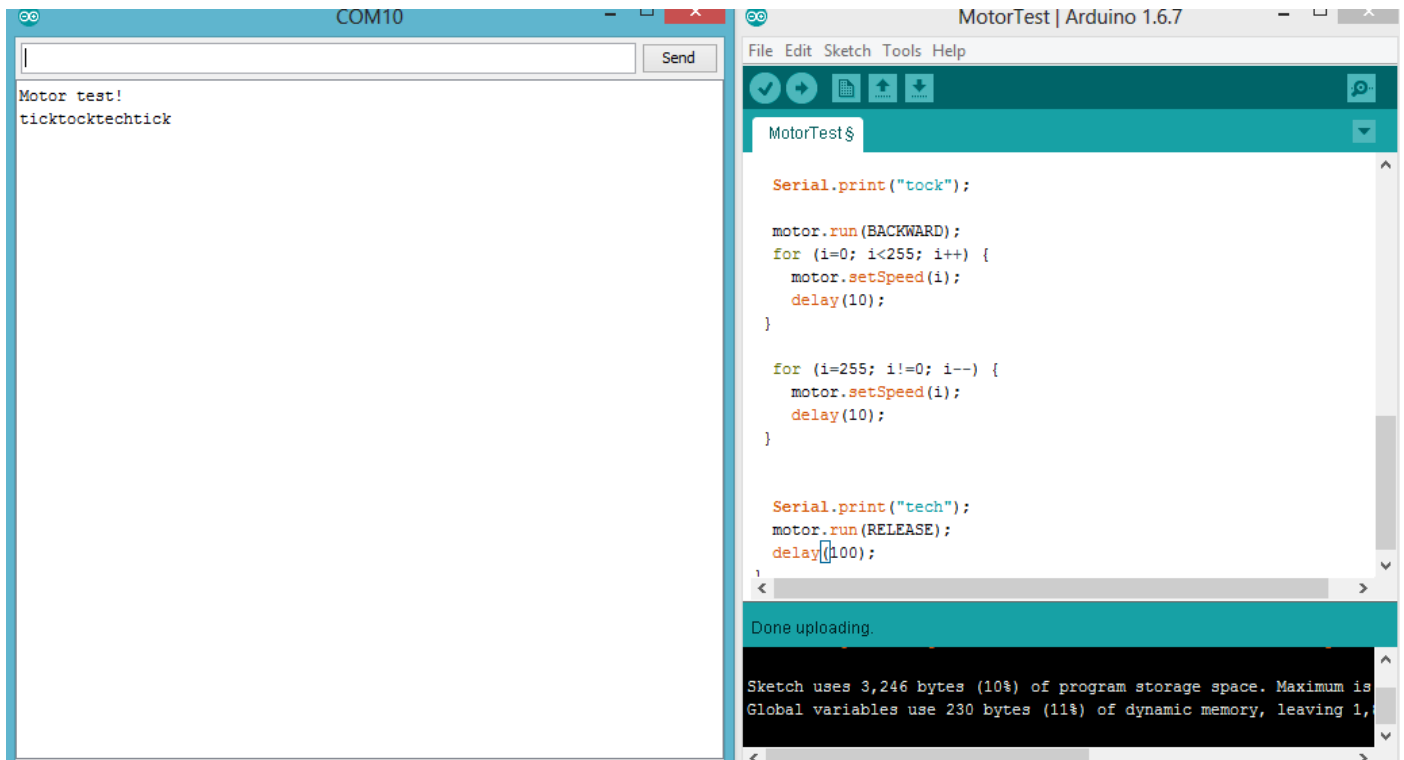


Application 1 Test the motor.

Using the code to test whether the motor is functioning or not. When the motor start to move forward, serial monitor will be displayed “tick”. Then move backward displayed “tock” and finally serial monitor will displayed “tech”. It shows that the motor is functioning and can be used for other project.



The image shows two windows from the Arduino IDE. The left window is the Serial Monitor for COM10, displaying the output: "Motor test!" followed by "ticktocktechtick". The right window is the Arduino IDE editor for a sketch named "MotorTest". The sketch code is as follows:

```
Serial.print("tock");

motor.run(BACKWARD);
for (i=0; i<255; i++) {
  motor.setSpeed(i);
  delay(10);
}

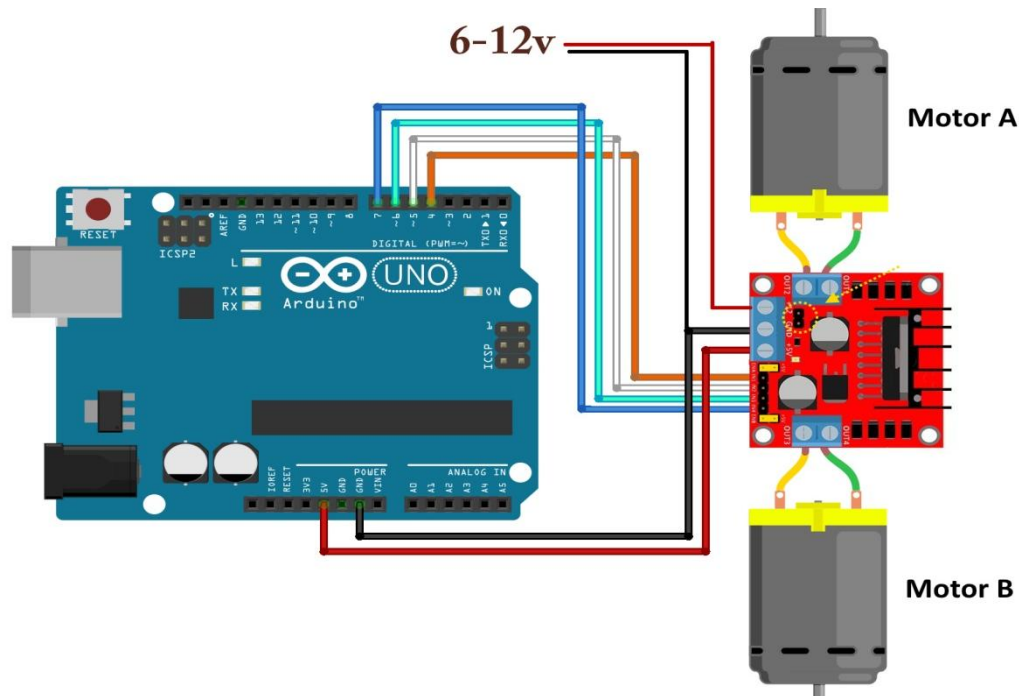
for (i=255; i!=0; i--) {
  motor.setSpeed(i);
  delay(10);
}

Serial.print("tech");
motor.run(RELEASE);
delay(100);
```

Below the code, a status bar indicates "Done uploading." and a message box shows: "Sketch uses 3,246 bytes (10%) of program storage space. Maximum is Global variables use 230 bytes (11%) of dynamic memory, leaving 1,"

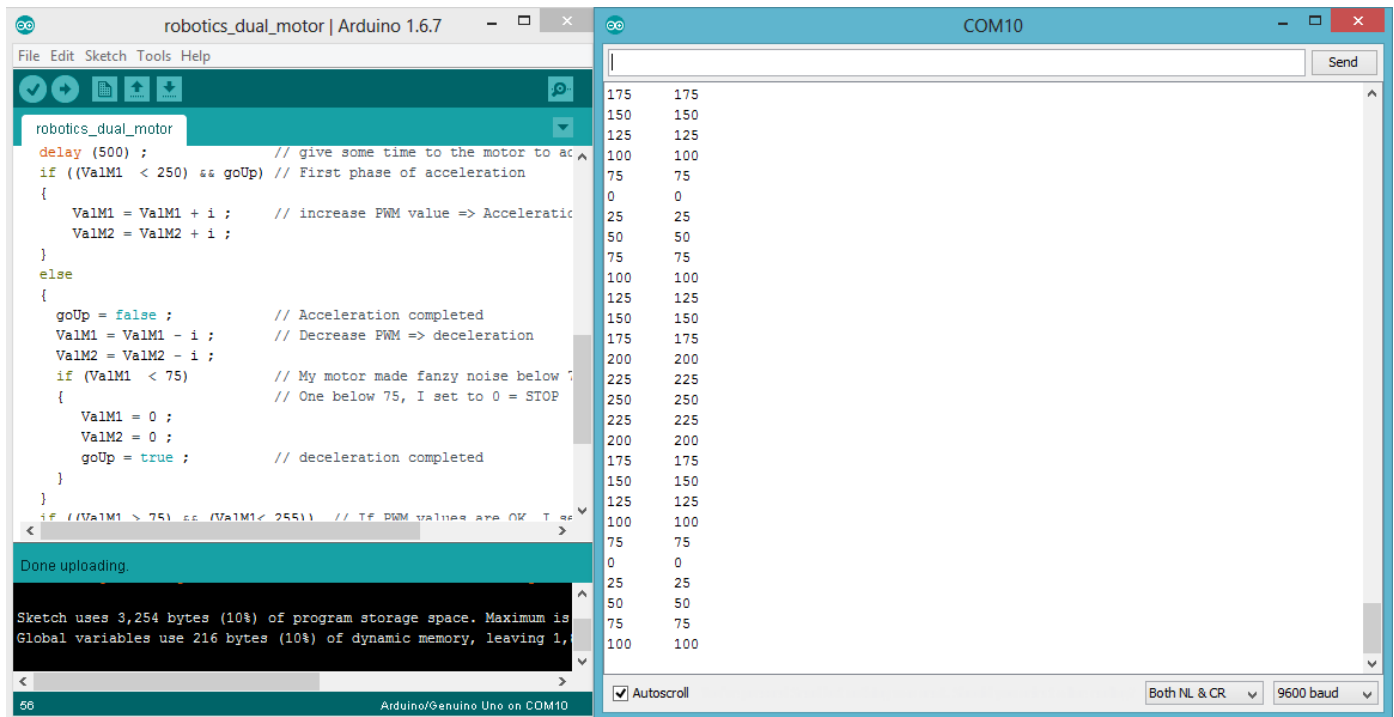
Application 2: Accelerating 2 motor

Set the connection as below



The output shows that when both motors are accelerating, when value displayed between 255 < speed > 75 both motors will accelerate. Motors will decelerate when value is < 75 and the motor will make some noise as the value decrease less than 70. The motor will stop for a while when the monitor displayed "0" value.

Output on serial monitor:



The screenshot shows the Arduino IDE interface. The left pane displays a sketch named 'robotics_dual_motor' with the following code:

```

delay (500) ; // give some time to the motor to ac
if ((ValM1 < 250) && goUp) // First phase of acceleration
{
  ValM1 = ValM1 + i ; // increase PWM value => Acceleration
  ValM2 = ValM2 + i ;
}
else
{
  goUp = false ; // Acceleration completed
  ValM1 = ValM1 - i ; // Decrease PWM => deceleration
  ValM2 = ValM2 - i ;
  if (ValM1 < 75) // My motor made fanzy noise below 75
  { // One below 75, I set to 0 = STOP
    ValM1 = 0 ;
    ValM2 = 0 ;
    goUp = true ; // deceleration completed
  }
}
if ((ValM1 > 75) && (ValM1 < 255)) // If PWM values are OK I set

```

The right pane shows the serial monitor output for COM10, displaying a sequence of values:

```

175 175
150 150
125 125
100 100
75 75
0 0
25 25
50 50
75 75
100 100
125 125
150 150
175 175
200 200
225 225
250 250
225 225
200 200
175 175
150 150
125 125
100 100
75 75
0 0
25 25
50 50
75 75
100 100

```

The status bar at the bottom indicates 'Arduino/Genuino Uno on COM10' and '9600 baud'.

Both applications above are to show how the L298N operate with DC motor. L298N can be used to control two motors, not just one since the module uses a dual H-bridge drive.