

```
1 void motor_setup()
2 {
3     // if using dual motor driver
4     // define driver pins as outputs
5     pinMode(IN1, OUTPUT);
6     pinMode(IN2, OUTPUT);
7     pinMode(IN3, OUTPUT);
8     pinMode(IN4, OUTPUT);
9     // initialize all pins to zero
10    digitalWrite(IN1, 0);
11    digitalWrite(IN2, 0);
12    digitalWrite(IN3, 0);
13    digitalWrite(IN4, 0);
14    return;
15 } // end function
16
17 // int motor is the defined A or B
18 // pwm = the power cycle you want to use
19 void run_motor(int motor, int pwm)
20 {
21     int dir = (pwm / abs(pwm)) > 0; // returns if direction is forward (1) or
reverse (0)
22     pwm = abs(pwm);                // only positive values can be sent to the
motor
23
24     switch (motor)
25     {
26         // find which motor to control
27         case A: // if A, write A pins
28             if (dir)
29             {
30                 // If dir is forward
31                 analogWrite(IN1, pwm); // IN1 is the forward pwm pin
32                 digitalWrite(IN2, LOW); // IN2 is low
33             }
34             else
35             {
36                 digitalWrite(IN1, LOW); // IN1 is low
37                 analogWrite(IN2, pwm); // IN2 is the reverse pwm pin
38             }
39             // end if
40             break; // end case A
41         case B: // if B, write B pins
42             if (dir)
43             {
44                 // if dir is forward
45                 analogWrite(IN3, pwm); // IN3 is the forward pwm pin
46                 digitalWrite(IN4, LOW); // IN4 is low
47             }
48             else
49             {
50                 digitalWrite(IN3, LOW); //IN3 is low
51                 analogWrite(IN4, pwm); // IN4 is the reverse pwm pin
52             }
53             // end if
54             break; // end case B
55         }
56     }
57     return;
58 } // end function
59
```