

## DT40 wire guide

**DT40** is a dual controller, which can drive two motors at the same time. It can supply **40A current to each motor**. It accepts brushless motors with hall sensors and also a BLDC motor **without hall sensors**. It can work with **36v,48v,and even 60v batteries**.

### Power input



#### Power input:

**Red:** battery positive, B+

**Black:** battery negative, B-

Warning: If B+ and B- were connected wrong, it would burn controller or battery.

### Power Switch



#### Power switch:

After the battery connected to the controller power input, the controller does not work if the power switch is not connected. You need to add an on/off switch to enable turn on/off controller.

Red: B+ output

Orange: Power switch signal, need to connect to B+ to enable controller.

### Motor detecting



**Motor detecting:** Motor detecting is also called self-learning function. Controller will self detect motor's data and decide how to drive motor. It also can be used for changing motor default running direction.

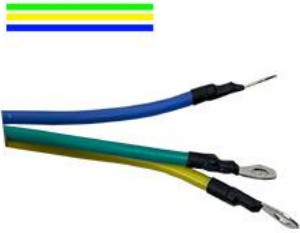
#### Two white wires

1. Make sure the motor is leave off ground.
2. Connect the motor wires to controller.
3. Connect the two motor detecting wires together.
4. power on the controller by power switch, the motor will auto run, disconnect the motor detecting wires during the running, the motor data is saved. If the motor running direction is not correct, re-plug the wires.

You can also power on the controller first and then connect detecting wires.

**Be noted:** each motor needs to do motor detecting separately at the first time using motors.

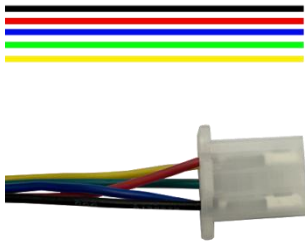
**phase wires**



**Phase cables(Power cables):**

Yellow: Phase U  
Green: Phase V  
Blue: Phase W

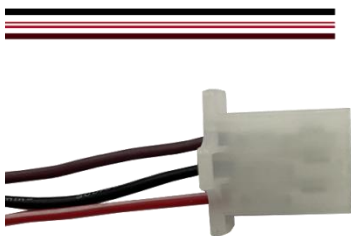
**Hall sensor wires**



**Hall sensor wires**

Red: +5V output  
Black: GND  
Yellow: Hall U  
Green: Hall V  
Blue: Hall W

**3-gear speed switch**



**3-gears speed switch wires:**

Red-white: High speed signal  
Black: GND/COM  
Brown: low speed signal  
Red-white to Black: faster speed:  
Brown to Black: lower speed  
Leave them alone: stand motor speed

**reverse switch**



**Reverse switch :**

Yellow: Reverse signal  
Black: GND  
Using an on/off switch to adjust motor running direction.  
Note: It will only enabled when throttle is at zero position.

### Throttle wires



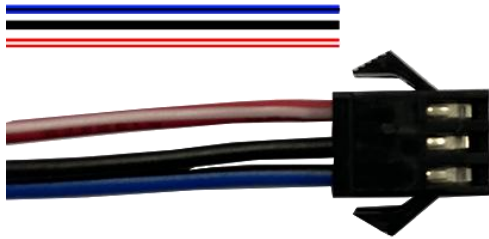
#### Throttle wires :

Red: +5V output

Black: GND

Green and black: speed signal wire  
(0.8v-4.2v)

### e braking switch



#### E braking switch :

Red-white: +5V output

Black: GND

Blue: e braking signal

Note: Using a hall sensor braking levers, or  
hall sensor thumb throttle to control brake  
force.

### Single/dual power switch



#### Single/dual power switch :

White and green: signal

Black: GND

Using an on/off switch to decide to drive  
two motors or just one motor. OFF: one  
motor, ON: two motors.

### braking switch



#### Braking switch :

Brown: brake signal

Black: GND

Noted: this is just to power off the  
controller, usually working with on/off  
braking levers or switch.

### **36v voltage option**



#### **36v voltage option switch :**

Pink: two pink wires for voltage option  
Noted: Connect them together, the controller will work with 36v battery. Leave them alone, controller works with 48v-60v battery.

### **High voltage brake wire**



#### **High voltage Braking switch :**

Blue and white: brake signal  
Noted: this is just to power off the controller, by supply it with a +12V voltage or higher voltage as the battery voltage.