Introduction:

Many of us are using the well known OE5JFL antenna controller.

Some of us are struggling with the limited motor current of the L6203 H-bridge from SGS Thomson.

Following the datasheet 5A max peak current.

I worked out a solution using a double high power motor driver based on two BTS7960 chips.

Those are available from various ebay vendors as they are used for many arduino projects:

IBT-2 H-bridge.
Input port

1. RPWM: Forward level or PWM signal input, active high
2. LPWM: Inversion level or PWM signal input, active high
3. R_EN: Forward drive enable input, high enable, low close
4. L_EN: Reverse drive enable input, high enable, low close
5. R_IS: Forward drive –side current alarm output
6. L_IS: Reverse drive –side current alarm output
7. VCC: +5 V power input, connected to the microcontroller 5V power supply
8. GND: Signal common ground terminal

Usage one:
VCC pick MCU 5V power supply, GND connected microcontroller GND
R_EN and L_EN shorted and connected to 5V level, the drive to work.
L_PWM, input PWM signal or high motor forward
R_PWM, input PWM signal or high motor reversal

Usage two:
VCC pick MCU 5V power supply, GND connected microcontroller GND
R_EN and L_EN short circuit and PWM signal input connected to high-speed
L_PWM, pin input 5V level motor is transferred
R_PWM, pin input 5V level motor reversal
Modification:

Following the OE5JFL original schematic:

1) Remove the L6203 for Azimuth IC1, and IC2 for Elevation carefully
2) Connect the following wires between the pads where the L6203 was and the IBT2 H-bridge:

Azimuth:

IC1 Pin5 (CW) ➔ IBT-2 azimuth Pin 1 (R_PWM)
IC1 Pin7 (CCW) ➔ IBT-2 azimuth Pin 2 (L_PWM)
IC1 Pin11 (PWM) ➔ IBT-2 azimuth Pin 3+4 (R_EN + L_EN)
IC1 Pin6 (GND) ➔ IBT-2 azimuth Pin 8 (GND)
R15 & R16 junction (+5V) ➔ IBT-2 azimuth Pin 7 (VCC)

Elevation:

IC2 Pin5 (UP) ➔ IBT-2 elevation Pin 1 (R_PWM)
IC2 Pin7 (DOWN) ➔ IBT-2 elevation Pin 2 (L_PWM)
IC2 Pin11 (PWM) ➔ IBT-2 elevation Pin 3+4 (R_EN + L_EN)
IC2 Pin6 (GND) ➔ IBT-2 elevation Pin 8 (GND)
R15 & R16 junction (+5V) ➔ IBT-2 elevation Pin 7 (VCC)
The L6203 Pinout: