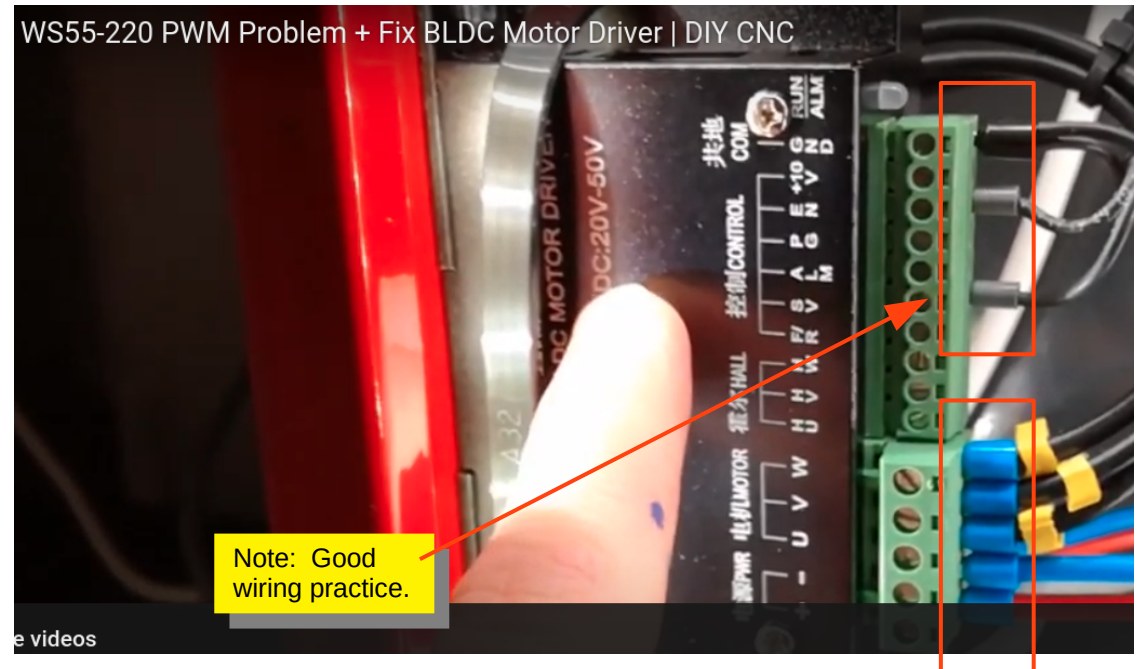


# WS55-180 Controller for BLDC Motor (3/14,2023)

The controller can drive the BLDC motor with HALL or without HALL. Two modes of speed regulation: External potentiometer: through this potentiometer speed regulation; External voltage: external 10VDC voltage speed regulation. Please note the two speed regulation can not be used simultaneously. The driver is based on advanced technology and be provided with high speed, high torque, low noise, low vibration. \$40

[https://www.amazon.com/Brushless-Controller-WS55-180-20V-50V-Spindle/dp/B07TNRDNYW/ref=asc\\_df\\_B07TNRDNYW/?tag=hyprod-20&linkCode=df0&hvadid=563721192637&hvpos=&hvnetw=g&hvrnd=12756175596043078416&hvpon=&hvptwo=&hvqmt=&hvdev=c&hvdvcmdl=&hvllocint=&hvllophy=1013962&hvtargid=pla-1587696591117&psc=1](https://www.amazon.com/Brushless-Controller-WS55-180-20V-50V-Spindle/dp/B07TNRDNYW/ref=asc_df_B07TNRDNYW/?tag=hyprod-20&linkCode=df0&hvadid=563721192637&hvpos=&hvnetw=g&hvrnd=12756175596043078416&hvpon=&hvptwo=&hvqmt=&hvdev=c&hvdvcmdl=&hvllocint=&hvllophy=1013962&hvtargid=pla-1587696591117&psc=1)

Testing the ws55-180 drive: <https://www.electronicshook.com/new-brushless-motor-driver-ws55-220/>



# DM542T Controller for Stepper Motor (3/20,2023)

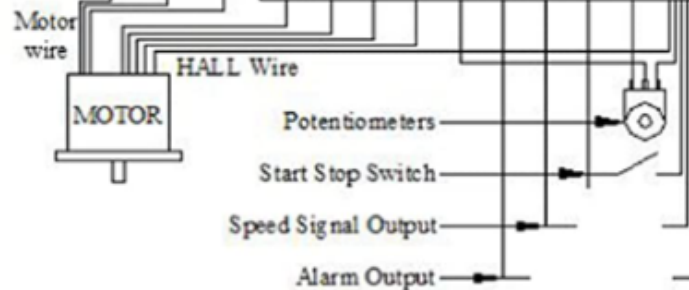
STEPPERONLINE CNC Stepper Motor Driver 1.0-4.2A 20-50VDC 1/128 Micro-Step Resolutions for Nema 17 and 23 Stepper Motor, \$28.99

[https://www.amazon.com/STEPPERONLINE-1-0-4-2A-20-50VDC-Micro-step-Resolutions/dp/B06Y5VPSFN/ref=asc\\_df\\_B06Y5VPSFN/?tag=hyprod-20&linkCode=df0&hvadid=242022044358&hvpos=&hvnetw=g&hvrand=10813180303813809859&hvpone=&hvpstwo=&hvpqmt=&hvdev=c&hvdvcmdl=&hvlcint=&hvlcophy=9032168&hvtargid=pla-588890261232&psc=1](https://www.amazon.com/STEPPERONLINE-1-0-4-2A-20-50VDC-Micro-step-Resolutions/dp/B06Y5VPSFN/ref=asc_df_B06Y5VPSFN/?tag=hyprod-20&linkCode=df0&hvadid=242022044358&hvpos=&hvnetw=g&hvrand=10813180303813809859&hvpone=&hvpstwo=&hvpqmt=&hvdev=c&hvdvcmdl=&hvlcint=&hvlcophy=9032168&hvtargid=pla-588890261232&psc=1)



Table 1. Motor pin connection

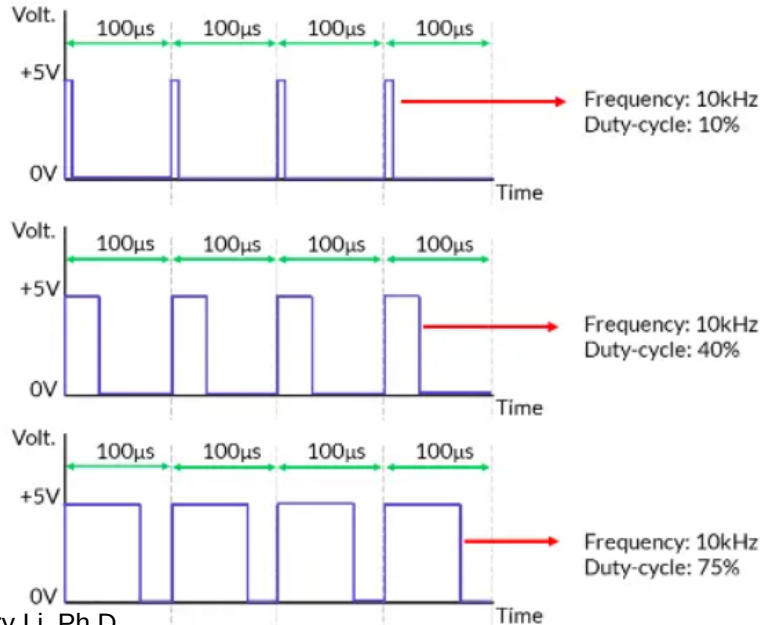
1. F/R	direction forward/reverse	gpio 79 J41-12
2. GP	output from the drive for the speed pulse pp. 1	



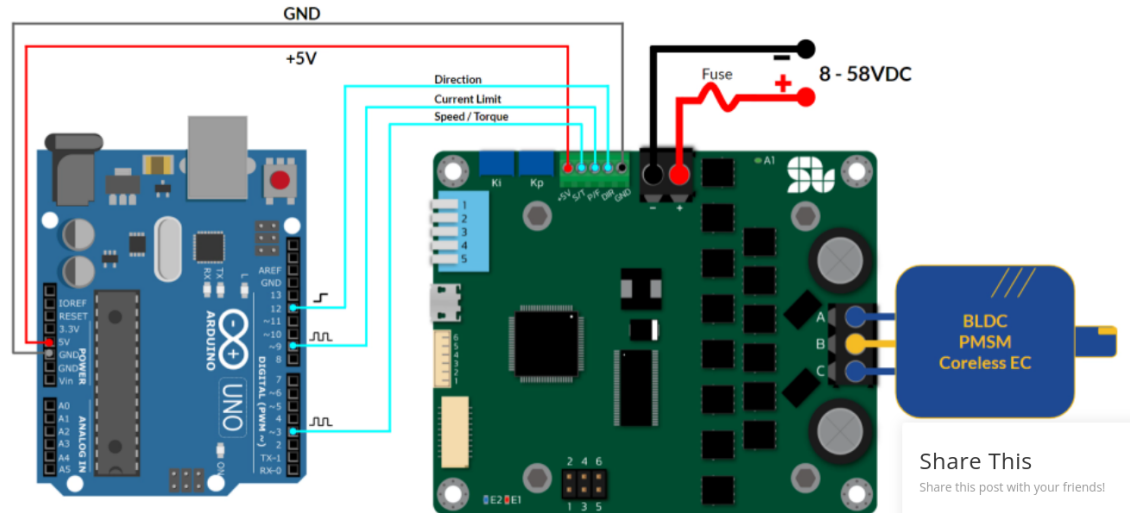
# Motor Control 3/12

With SOLO you can have either Torque or Speed control,

<https://www.solomotorcontrollers.com/blog/how-to-control-speed-or-torque-of-your-brushless-motor-with-arduino-using-solo-closed-loop/>



Harry Li, Ph.D.  
SJSU



## Closed-Loop Configuration of SOLO

<https://www.youtube.com/watch?v=uuLZa594CfQ&t=8s>

<https://www.solomotorcontrollers.com/>

<https://forum.arduino.cc/t/500w-electric-scooter-control-and-instrumentation-with-arduino-mega/458786>

[https://www.youtube.com/watch?v=QqJ2-YiE8Tg&list=PLfZunVn\\_gcq7EOurXuWU2sRFmh6CbiUiL&index=76](https://www.youtube.com/watch?v=QqJ2-YiE8Tg&list=PLfZunVn_gcq7EOurXuWU2sRFmh6CbiUiL&index=76)