



## **DRS - 0401 HerkuleX Smart Servo**

---

SKU:SER0034

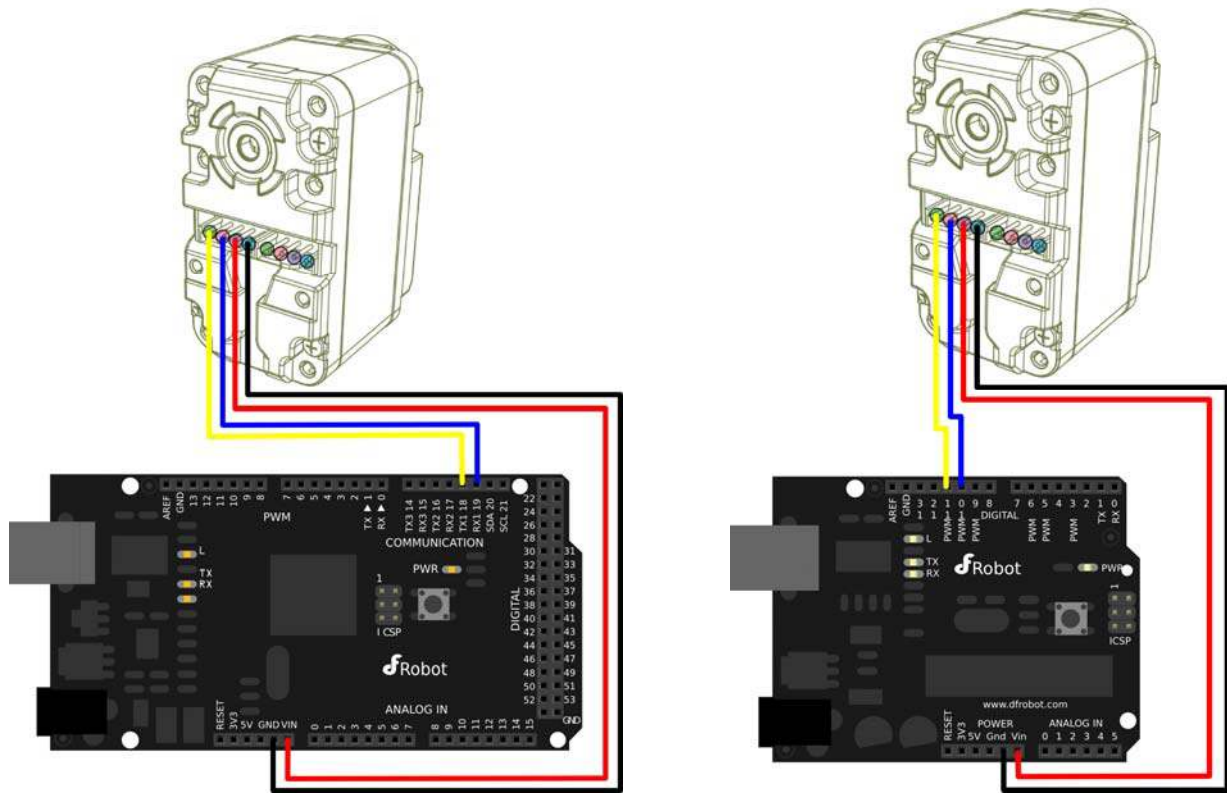
HerkuleX DRS-0401 is state of the art modular smart servos incorporating motor, gear reducer, control circuitry and communications capability in one single package. Through Premium FAULHABER Coreless DC Motor, this servo can provide the stall torque up to 5.1 N.m at 14.8V, which is really amazing.

Equipped with serial adapting pieces including Horn, Horn Bolt(M 3\*6), Bracket Assembly Bolt(M 2.6\*4), Wire Harness(200mm,7.87") and with it's amazing structure, DRS-0401 is extremely easy to assemble. Two connectors attached to each servo allows serial connection as well as parallel connection if required.

It carries different Control Algorithms like PID, Feedforward, Trapezoidal Velocity Profile so on and so forth, which makes the movement smoothly and precisely. By Using UART Serial communications ,we can lightly change the speed, position, LED, operational compliance, stop and operational status of up to 254 servos simultaneously at once. Meanwhile we can get the feedback such as internal temperature, position, and overload sensors.

Servos are capable of diagnosing seven different types of errors which are then indicated by the LED. And we can directly control the RGB of the LED for diagnostics and decorative purposes. It's especially suitable to mechanical arms, robots, joints and etc.

## Cable definition



Black : GND

Red : VDD (12V)

Blue : TXD

Yellow: RXD

## SPECIFICATION

### Mechanical specification

- Premium FAULHABER Coreless DC Motor
- Rotation angle range: 320° Continuous Rotation (Velocity Control)
- Resolution: Approximately 0.163° (2048 steps)
- Stall torque: 5.1 N·m (14.8v)
- Maximum Speed: 0.162s/60° (14.8v)
- Gear: 1:202, Super Reinforced Metal
- Size: 56mm(2.20")(W) x 35.0mm(1.38")(D) x 38mm(1.50")(H)
- Weight: 123g

## Electrical specification

- Working Voltage: 9.5-14.8VDC(Optimized 12V)
- Rated Current: 30mA @ 14.8V
- Communication Link: Full Duplex Asynchronous Serial(TTL Level), Binary Packet, Multi Drop
- Multi control through Servo ID: 0 ~ 253, 254(Broadcast only)
- Maximum Baud Rate: 1Mbps
- Feedback: 4 Position, Speed, Temperature, Load, Voltage, Real Time Tick etc.
- Various Control Algorithm: PID, Feedforward, Trapezoidal Velocity Profile, Velocity Override, Velocity Control Torque Saturator & Offset, Overload Protection, Neutral Calibration, Dead Zone
- 

## SHIPPING LIST

- HerkuleX DRS-0401 Servo x1

