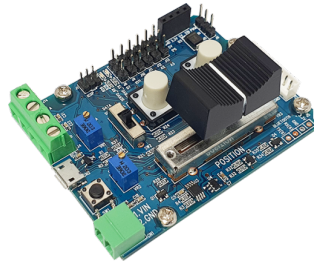


IR ROBOT Product Brochure

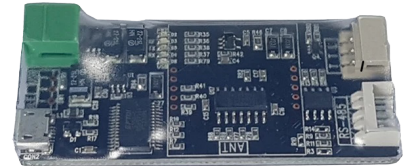
V2021JAN



13.1 Actuator



13.2 Controller



13.3 USB Interface

IR Robot Co. Ltd. has introduced service robot products since its establishment in year 2003. Based on accumulated technical know-how in robot design and control technology, we have strived to be a professional manufacturer for small sized linear servo actuators from year 2016.

Table of contents

13.1 Actuator	13.1
13.2 Controller	13.1
13.2.1 EZ Controller (IR-CT01)	13.2
13.2.2 Arduino Servo Tester Shield (IR-STS01)	13.2
13.3 USB Interface	13.3

13.1 Actuator

The mightyZAP is an “All in One” solution having a built-in drive circuitry, and helps to overcome restraint of narrow space through simplification. It is a perfect linear solution for any facilities which require linear movement with position control in narrow space.

13.1.1 MICRO LINEAR SERVO ACTUATOR-MIGHTYZAP



Selection Parameters

Parameters	Min	Max
Position Accuracy	30µm	50 µm
Stroke	26 mm	96 mm
Rated load	6 N	100 N
Speed	7.7 mm/sec	110 mm/sec

Industries it caters to

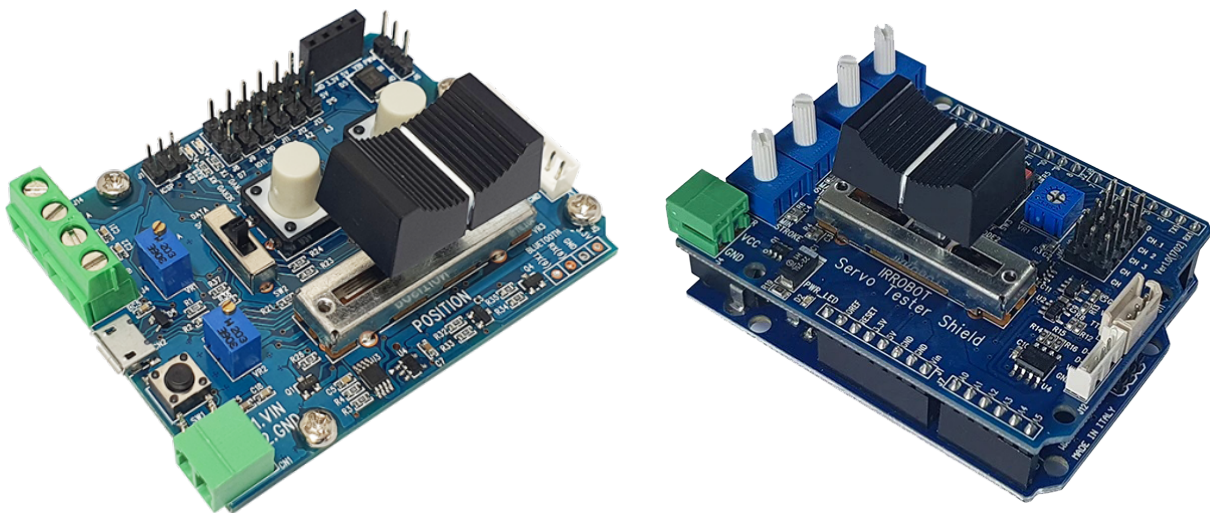
Factory Automation(Production & Test)
Robotics
UAV/Drone/Military
Medical / Lab

Product Application

Automatic Width Adjustment Conveyor
Linear Control in Vending / Game Machine
Robot Grippers/Joints
Helicopter (Swash Plate Control/Rudder)
Medical Devices (HIFU, Fractional RF etc)

The iR Robot mightyZAP is an “All in One” solution having a built-in drive circuitry and helps to overcome restraint of narrow space through simplification. It is a perfect linear solution for any facilities which require linear miniature or micro-movement with position control in narrow space. Having a Linear DC Actuator(Miniature DC Actuator/ Micro DC Actuator/ DC Servo Actuator)

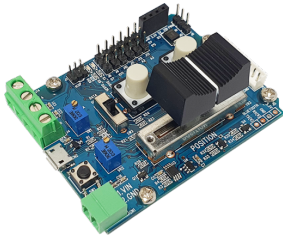
13.2 Controller



13.2 Controller (continued)

1. MightyZAP controller/tester for customers who do not have their own controller
2. Arduino based simple operation
3. Built-in basic control program, User programmable (Arduino example provided)
4. Built-in position setting dials, position command button switches and position command slide
5. Controllable through external switch or voltage level signal
6. 6 x I/O pins for analog/digital sensor connection

13.2.1 EZ CONTROLLER (IR-CT01)



Selection Parameters

Parameters	Min	Max
Position Accuracy	30µm	50 µm
Stroke	26 mm	96 mm
Rated Load	6 N	100 N
Speed	7.7 mm/sec	110 mm/sec

Industries it caters to

Factory Automation(Production & Test)
Robotics
UAV/Drone/Military
Medical / Lab

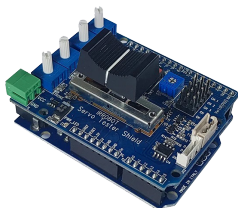
Product Application

Automatic Width Adjustment Conveyer
Linear Control in Vending / Game Machine
Robot Grippers/Joints
Helicopter (Swash Plate Control/Rudder)
Medical Devices (HIFU, Fractional RF etc)

1. MightyZAP manufacturing controller & tester for those customers who do not have their own controller
2. Arduino based simple operation
3. The built-in basic control program, User programmable (Arduino example provided)
4. Built-in position setting dials, position command button switches, and position command slide
5. Controllable through external switch or voltage level signal
6. 6 x I/O pins for analog/digital sensor connection
7. External communication terminal for Bluetooth or Zigbee communication

Control servo motions without PC software. Built with Arduino Leonardo and our own servo shield,, user controls servo motor using Arduino API & libraries.

13.2.2 ARDUINO SERVO TESTER SHIELD (IR-STS01)



Selection Parameters

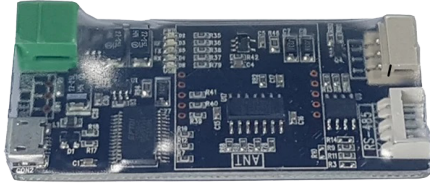
Parameters	Min	Max
Position Accuracy	30–50µm	50 µm
Stroke	26 mm	96 mm
Rated load	6 N	100 N
Speed	7.7 mm/sec	110 mm/sec

- iR Robot Control servo motions without PC software. Built with Arduino Leonardo and our own servo shield, used for control the speed & positioning (Controller), the user controls the servo motor using Arduino API & libraries.

13.3 USB Interface

1. Operating Parameter Setting
2. Motion Test
3. System Initialization and Firmware Update
4. Voltage, Load, Temperature, Present Position Monitoring

13.3.1 PC USB INTERFACE-USB01



Selection Parameters

Parameters	Min	Max
Position accuracy	30µm	50 µm
Stroke	26 mm	96 mm
Rated Load	6 N	100 N
Speed	7.7 mm/sec	110 mm/sec

The iR Robot USB interface is used for monitoring parameters like voltage, load, temperature, present position.