

TINKERKIT BRACCIO ROBOT

Code: T050000

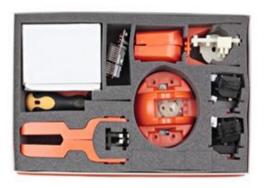
Unlock the unlimited possibilities of robotics with BRACCIO!



OVERVIEW:

You can assemble your BRACCIO in a multitude of ways. Because it is designed for versatility, the BRACCIO can also support various objects on the end of the arm. The included BRACCIO shield allows you to hook up the servos directly to your Arduino board.









TECHNICAL SPECIFICATIONS:

Power

It is recommended to power the board via the jack connection with a regulated 5 VDC @ 5000 mA power supply provided in the box.

There is an on-board voltage regulator for higher voltages that protect the Braccio shield. NOTE: The protection doesn't work for the Arduino Yun if you put the bridge between Vin and 5V on the Arm Robot Shield V1 (greater version of are called Braccio shield and has a power switch on the top of the shield)

Physical Characteristics

- Plastic Parts x 21
- Screws x 63
- Flat Washer x 16
- Hexagon Nut x 7
- Springs x 2

Weight

- Servo Motors: 2 x SR 311, 4 x SR 431
- Arduino compatible Shield x 1
- Power Supply 5V, 5A x 1
- Phillips Screwdriver x 1
- Double Hexagon Box Wrench x 1
- Spiral Cable Protection Wrap x 1

Fully assembled Braccio Kit:

Maximum operating distance range	80 cm
Maximum Height	52 cm
Base Width	14 cm
Gripper Width	90 mm
Cable length	40 cm

792 g

Load	Capa	citv

Maximum weight at 32 cm operating distance: 150 g

Maximum weight at the minimal Braccio
configuration: 400g

Braccio Shield: The maximum length and width of the Braccio Shield PCB are 2.7 and 2.1 inches respectively, with the power jack extending beyond the former dimension. Four screw holes allow the board to be attached to a surface or case. Note that the distance between digital pins 7 and 8 is 160 mil (0.16"), not an even multiple of the 100 mil spacing of the other pins.

Servo Technical Specification

SpringRC SR431 - Dual Output Servo

Control Signal	PWM Analog
Torque	@ 4.8V: 169.5 oz-in (12.2 kg-cm)
	@ 6.0V: 201.4 oz-in (14.5 kg-cm)
Weight	2.19 oz (62.0 g)
Dimensions	1.65×0.81×1.56 in (42.0×20.5×39.5 mm)
Speed	@ 4.8V: 0.20 sec/60°
	@ 6.0V: 0.18 sec/60°
Rotation Support	Dual Bearings
Gear Material	Metal

Rotation Range	180°
Connector Type Spring RC SR311	J (aka Futaba)
Control Signal	PWM Analog
Torque	@ 4.8V: 43.13 oz-in (3.1 kg-cm)
·	@ 6.0V: 52.86 oz-in (3.8 kg-cm)
Weight	0.95 oz (27.0 g)
Dimensions	1.23×0.65×1.13 in (31.3×16.5×28.6 mm)
Speed	@ 4.8V: 0.14 sec/60°
	@ 6.0V: 0.12 sec/60°
Rotation Support	Dual Bearings
Gear Material	Metal
Rotation Range	180°
Connector Type	J (aka Futaba)