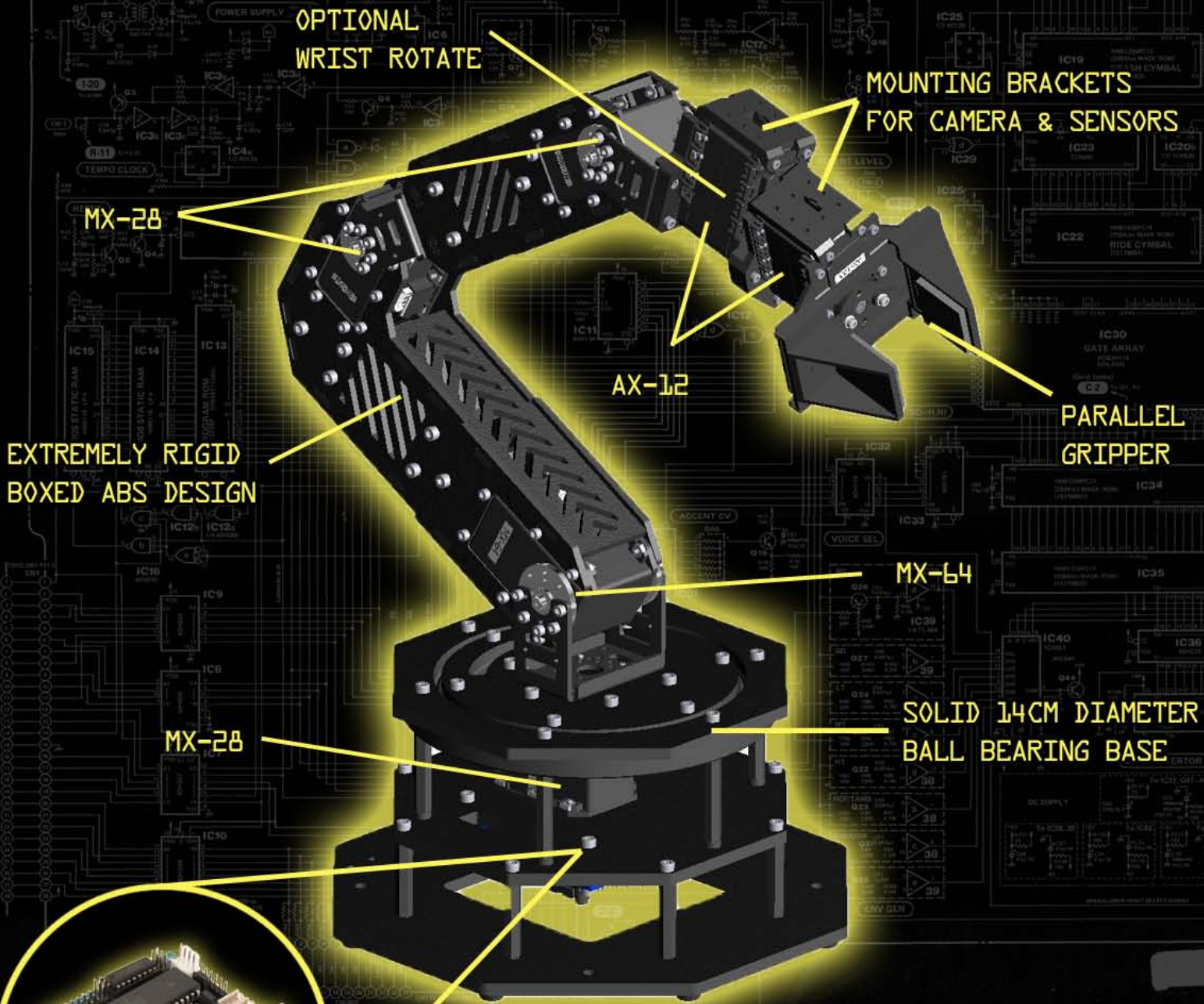


WIDOWX ROBOTIC ARM

Visit the WidowX Product Page



ARBOTIX MICROCONTROLLER

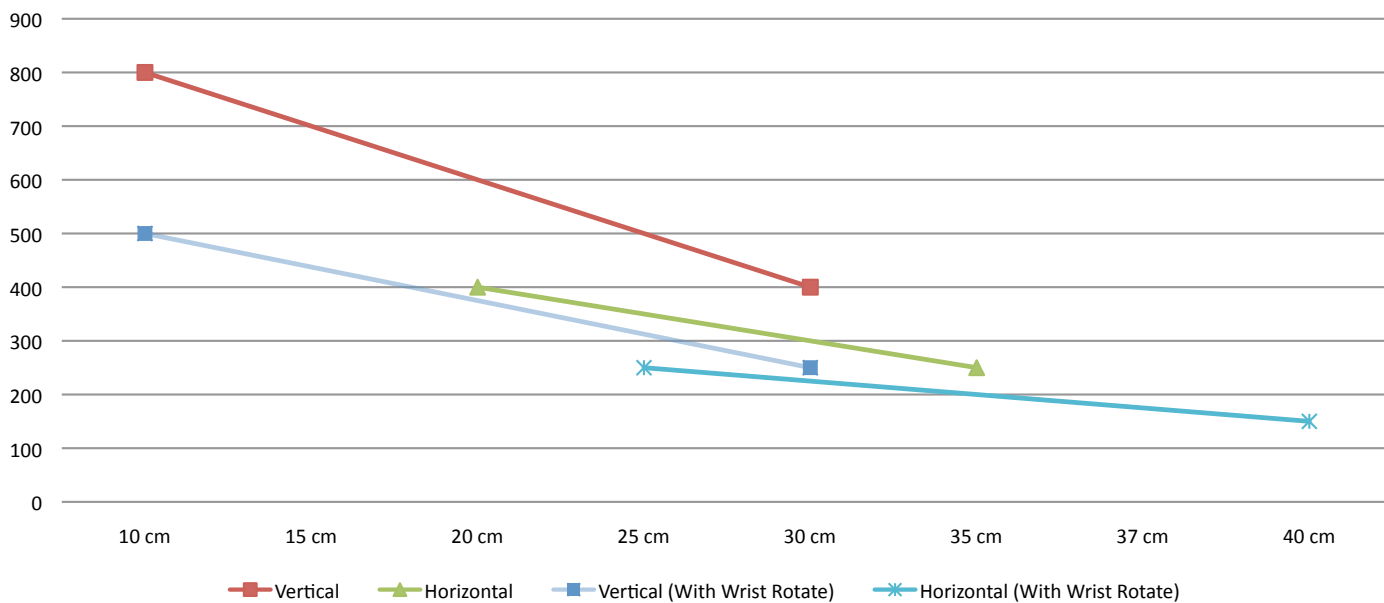
- ATMEGA 644P
- DIGITAL & ANALOG I/O
- ROS READY
- XBEE WIRELESS
- ARDUINO IDE
- CUSTOM FIRMWARE

STATS

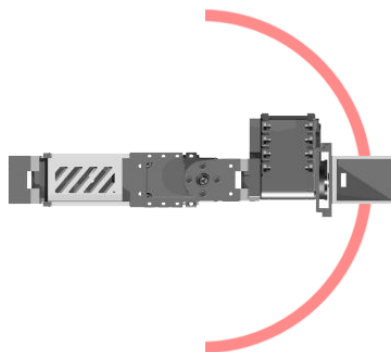
- WEIGHT: 1330G (1400 W/ ROTATE)
- VERT REACH: 51CM (55 W/ROTATE)
- HORZ REACH: 37CM (41 W/ROTATE)
- STRENGTH: 30CM/400G
(NO ROTATE) 20CM/600G
10CM/800G
- GRIPPER: 500G HOLDING STRENGTH
- WRIST LIFT: 500G (400 W/ROTATE)

The WidowX Robot Arm is Interbotix Labs' entry level arm offering for the MX series of DYNAMIXEL Servos. The MX series actuators provide a full 360 degree freedom of movement in the base, ultra-high resolution of 4096 positions, user-definable PID parameters, and extremely smooth interpolation. The hefty MX-64 shoulder servo gives the WidowX very strong lifting strength in a slim frame. If you are looking for medium lifting strength and desire smooth control, high accuracy and repeatability the WidowX is a great mid-level arm choice.

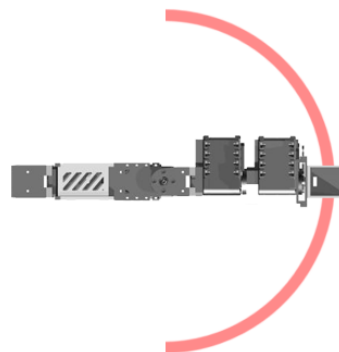
WidowX Strength Chart (grams)



The WidowX Robot Arm has up to a 41cm horizontal reach and 29cm of vertical reach. At a 10cm reach it can lift up to 800g, and at 30cm up to 400g. The gripper itself has a rated holding strength of up to 500g, while the wrist itself can lift up to 500g horizontally. (400g if using wrist rotate).

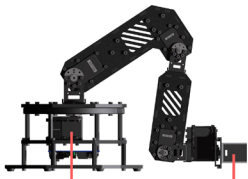


Regular
500g Lifting Strength



With Wrist Rotate
400g Lifting Strength

Horizontal Orientation



23 CM



37 CM

Horizontal Orientation W/ Wrist Rotate



27 CM



41 CM

Vertical Orientation



9 CM



29 CM

Vertical Orientation W/ Wrist Rotate

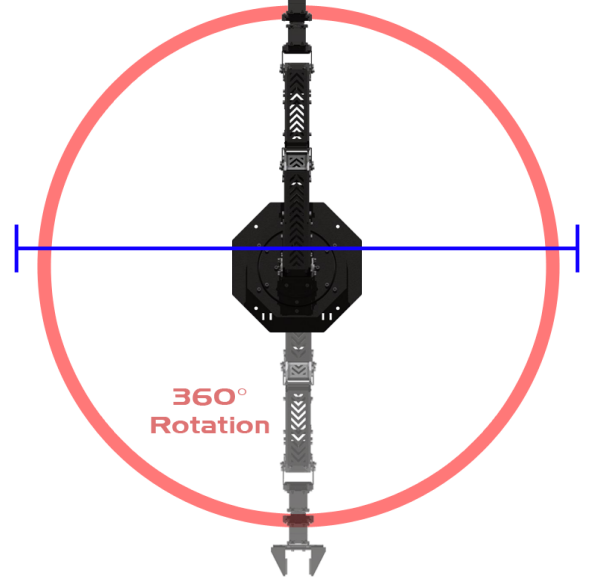


10 CM



29 CM

Diameter Reach
82cm W/ Wrist Rotate
74cm Standard



360°
Rotation

Dynamixel MX servos have 360 degrees of movement, which results in an extraordinary range of motion and reach on the WidowX. Temperature monitoring, positional feedback, as well as voltage levels, load, and compliance settings are user accessible as well.

A rugged ABS boxed frame design and 14cm diameter ball bearing rotational base ensures maximum rigidity and accuracy. Optional wrist rotate allows for up to 5 degrees of freedom, along with a custom designed parallel gripper for high precision and maximum gripping strength.

No Foam

7mm



1 Foam

2mm



2 Foam

0mm



37mm



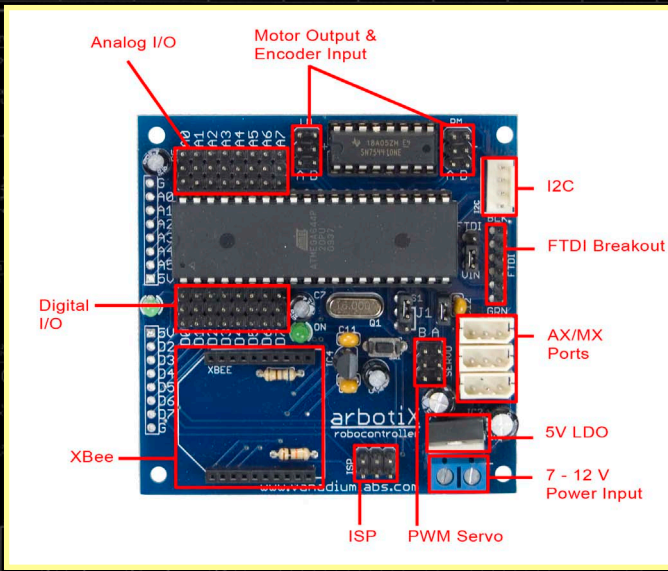
32mm



25mm



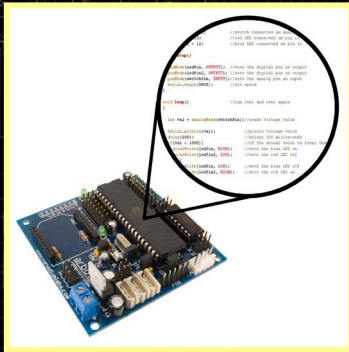
SM-83



The onboard Arbotix Robocontroller can be programmed using the Arduino IDE or custom firmware, providing 8 digital and analog IOs, Xbee wireless or USB connectivity, and a powerful ATmega644p capable of handling Inverse Kinematics code onboard.

- ATmega644p Microprocessor
- 8 Analog & 8 Digital IOs
- Physical, Xbee Wireless, & USB/TTL Serial control options
- Arduino IDE compatible
- Custom firmware capable
- ROS Ready

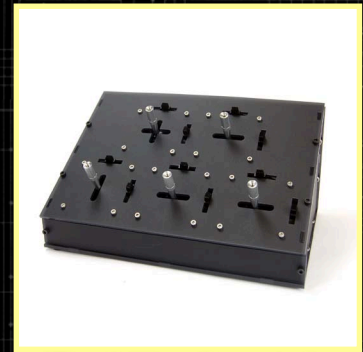
The WidowX Robotic Arm Has Many Control Options...



Onboard code / autonomous programming



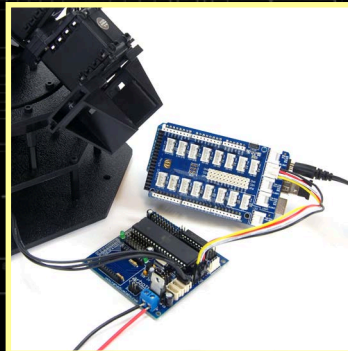
Computer tethered USB TTL



Direct drive via controls



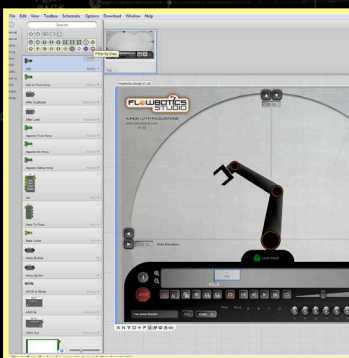
Wireless Xbee



Pair w/ External Microcontroller



Handheld Controllers



Flowstone Software

[For more information on the WidowX Robotic Arm, visit the product page by clicking here.](#)