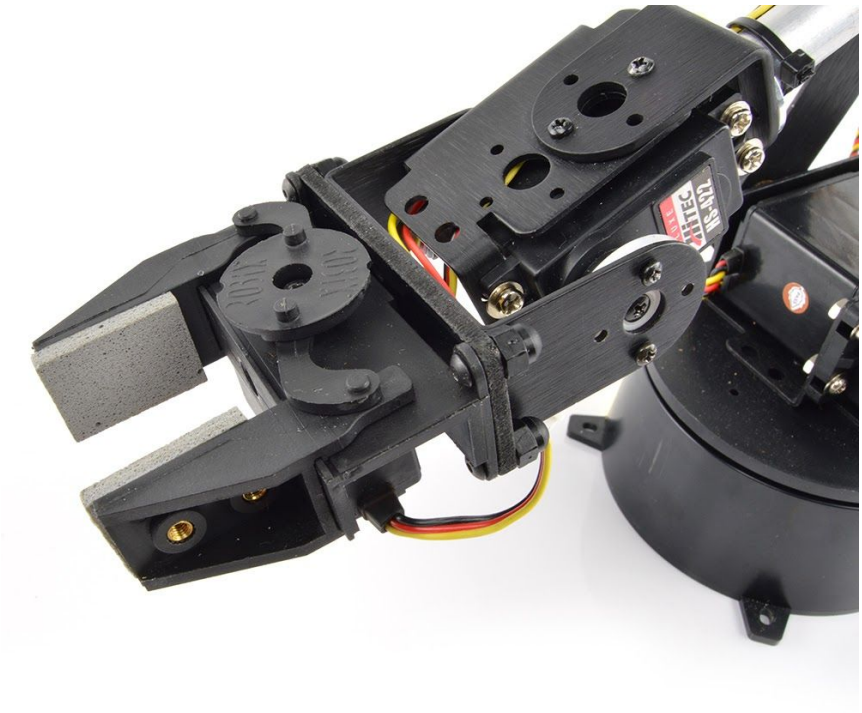
Description

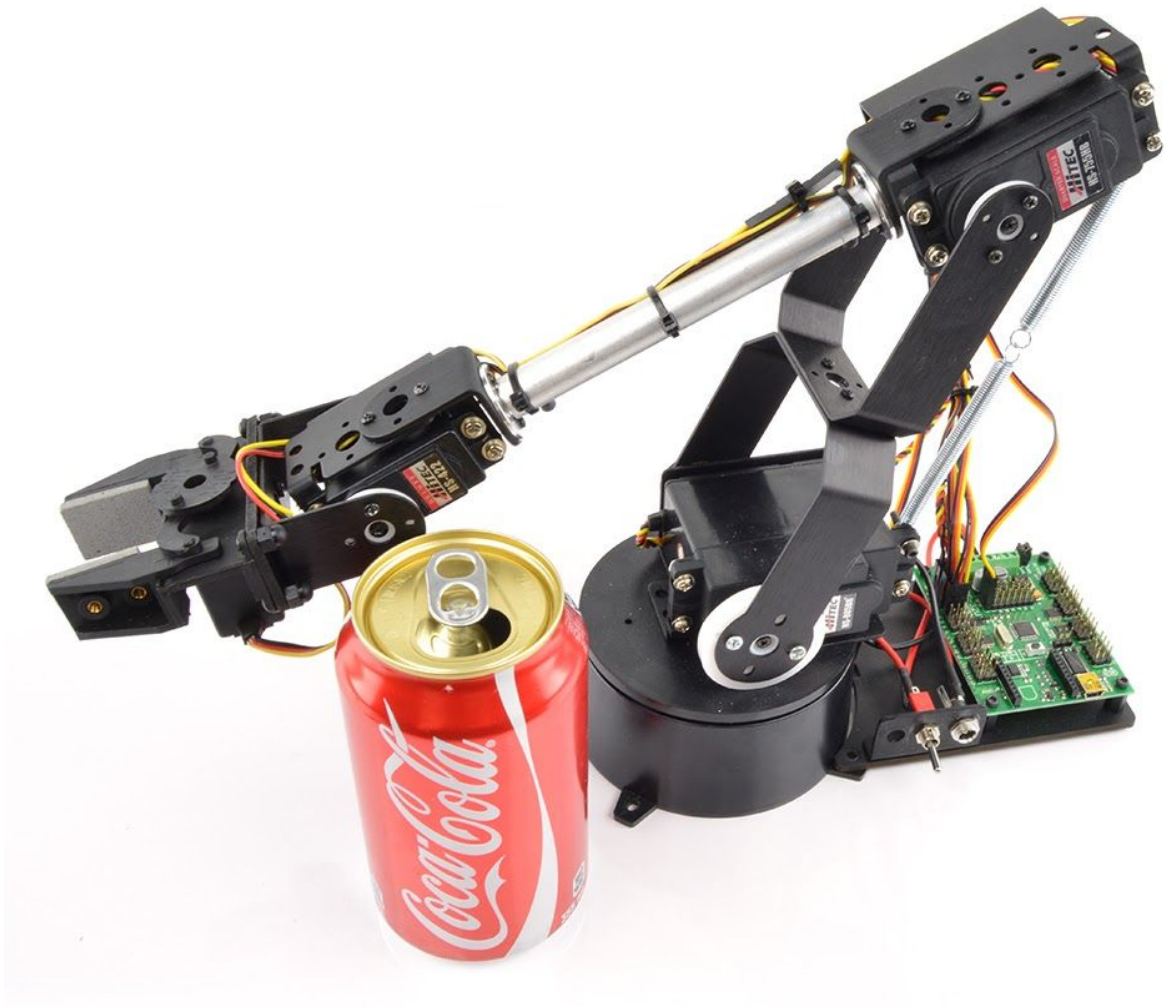
- Assembled AL5D robotic arm for Project Lead The Way (PLTW)
- Works perfectly with the free software FlowArm PLTW
- Advanced inverse kinematics positioning control using mouse
- Features a medium duty wrist rotate upgrade and a SSC-32U servo controller board
- Includes everything you need to control the arm from a personal computer (USB port)
- Unassembled version available here

The Lynxmotion AL5D PLTW Robotic Arm - Assembled is especially made specifically for PLTW schools. The AL5D is a fully assembled robotic arm which features a medium duty wrist rotate upgrade, SSC-32U servo controller board and a USB cable. The SSC-32U board means no more USB-to-serial adapter and no more 9V battery.
The Lynxmotion AL5D 4 Degrees of Freedom Robotic Arm delivers fast, accurate, and repeatable movement. Lynxmotion designed an affordable system based on a time tested, rock solid design that will last and last. The AL5D is made using Lynxmotion's Servo Erector Set components for the ultimate flexibility and expandability. The arm consists of black anodized aluminum brackets, aluminum tubing and hubs, custom injection molded components, and precision laser-cut Lexan components.



Project Lead The Way (PLTW) is the nation's leading science, technology, engineering and math (STEM) solution and is used in over 5,000 schools across the U.S. The PLTW Computer Integrated Manufacturing (CIM) curriculum includes creating an assembly line and use of the Lynxmotion AL5D arm. This software was created so students would have full control of the arm without having to spend significant time programming, and integrate it easily into a larger manufacturing / assembly system.

FlowArm PLTW has a powerful pattern sequencer component (normally found only in the full version of FlowBotics Studio) that is used to create reusable patterns within minutes or hours, instead of days or weeks. The sequencer also allows you to vary the speed of playback of a routine.



Specifications

- No of axis = 5 + Gripper (wrist rotate included)
- Servo motion control = local closed loop
- 1 x HS-485HB in the base
- 1 x HS-805BB (or equivalent large scale servo) in the shoulder
- 1 x HS-755HB in the elbow
- 1 x HS-645MG in the wrist
- 1 x HS-422HB in the gripper
- Lift weight (arm extended) = approx. 11 oz
- Weight = 32 oz
- Range of motion per axis = 180 degrees
- Accuracy of motion per axis = 0.09 degrees (with SSC-32U)
- Servo voltage = 6V DC
- Wrist rotate option includes 1x HS-422 Servo Motor
- FlowArm PLTW compatible with Windows XP SP2 (with .NET Framework), Windows 7,8 and 10. Requires internet connection.
- Minimum requirements for Windows XP: 2 GHz (single core), 1 GB RAM, and 1024x768 resolution.

What's Included

- 1x Lynxmotion AL5D PLTW Robotic Arm - Assembled

Useful Links

PDF Files

- Lynxmotion PLTW AL5D Assembly & User Guide (NEW)
- Lynxmotion PLTW Kit Information Page

Blog

- How to Choose a Lynxmotion Robotic Arm

Dimensions

- Distance (base-to-elbow axis) = 5.75"
- Distance (elbow-to-wrist axis) = 7.375"
- Height (arm parked) = 7.25"
- Height (reaching up) = 19"
- Median forward reach = 20.25"
- Gripper opening = 1.25"

Multimedia

https://www.youtube.com/watch?v=mmFRnqgy3LI
https://www.youtube.com/watch?v=EMy26Q6rC2g
https://www.youtube.com/watch?v=JV8Unhsgu_M