



## Description

- Serial Port-Based Version with Powerful PC software
- Wired Serial Control or Bluetooth Control
- Includes FlowBotics Studio Software
- Three Degrees of Freedom (DOF) per Leg to provide flexible movement

The Lynxmotion Biped BRAT (FlowBotics Studio) BRATCF is a serial port-based version Biped BRAT combo kit with FlowBotics Studio software. BRAT stands for Bipedal Robotic Articulating Transport. The robot is a 6 servo biped walker featuring three degrees of freedom (DOF) per leg. The robot can walk forward or backwards and turn in place left or right with variable speed. It can even do lots of Robo-One style acrobatic moves. This combo kit includes everything needed to make an operational robot, however the chassis and servos are available separately for those who want to use their own electronics.

### The Mechanics

The robot is made exclusively from brushed, or black anodized aluminum servo brackets from Servo Erector Set. It also includes an electronics carrier made from ultra-tough laser-cut Lexan.

### The Servos

The walker is provided with HS-422 servos. Due to the robot's light weight, these servos work well.





### Powering Options

As with any walking robot, weight is a major concern. The best approach is to keep the weight to an absolute minimum. It has been recommended using the 6.0 Volt Ni-MH 1600mAh Battery Pack and the Universal Smart Charger.

## Features:

- Serial port-based version with powerful PC software
- Includes FlowBotics Studio software
- Wired serial control or Bluetooth control
- This product includes everything you need to build and control the robot from a personal computer

### Specifications

#### Biped BRAT

- No of DOF per Leg: 3
- Servo Motion Control: Local Closed Loop
- Height: 8.5 inch
- Width: 6.0 inch
- Ground Clearance: 2.5 inch
- Weight (without batteries): 22.2 oz
- Range of Motion per Axis: 180 Degrees
- Accuracy of Motion per Axis: Servo Controller Dependent (SSC-32: .09°)
- Servo Voltage: 6 vdc

## What's Included

- Biped BRAT (no electronics) (BRAT)
- 6x HS-422 servo
- SSC-32U Servo Controller
- Bluetooth module and USB Bluetooth
- FlowBotics download and license included
- 1x USB cable

## Useful Links

### PDF Files

- [Biped Brat Assembly Guide](#)
- [Datasheet](#)

## Multimedia

The following video shows the construction of the BRAT Biped in relation to the SES V1.1 Kit (Bluetooth module and XBee to serial adapter sold separately).

Only complete BRAT kits include either the SSC-32 servo controller or the BotBoarduino.

<https://www.youtube.com/watch?v=Ka0pAsr4Hl0>

<https://www.youtube.com/watch?v=njkyA37yOr0>