

RB-Lyn-672

Lynxmotion Mini-Hex Hexapod Kit MH2F (FlowBotics Studio)



About the MH2 Walking Robot

The MH2 hexapod robot is designed around a simple mechanical leg design with all metal brackets. This leg design minimizes the number of parts required to make a two DOF (degree of freedom) leg and allows this robot to be steered like a tank. Forward, reverse and in place turning is supported. The robot uses standard sized Hitec servos for the legs. The combo kit includes everything you need to make a functional robot except batteries and optional PS2 controller.

The Mechanics

The body of the robot is made from ultra-tough laser-cut PVC structural components while the legs are made from high-quality aluminum Servo Erector Set brackets. The MH2 includes 12 servos; six HS-422 and 6x 645MG. The robot is able to adjust its height, walk forward and in reverse, as well as rotate clockwise and counter-clockwise, tilt forward and backward, left and right and more.

Controlling the Robot

There are three control options for the MH2. The first combo kit, the MH2, comes with the SSC-32 and the Bot Board II + BASIC Atom Pro 28. This kit is programmed using Basic Micro Studio. The second kit, the MH2U, includes the SSC-32 and a BotBoarduino, and is intended to be programmed using the popular Arduino software. By offloading the servo pulse generation and sequence movement timing to the SSC-32, the microcontroller has plenty of power to do some really cool things. The sample code allows the robot to walk using the PS2 controller (sold separately).

The third kit includes a full version of FlowBotics Studio and includes the SSC-32 as well as a serial to Bluetooth board and Bluetooth module which allows for remote control from the computer. This approach offloads the higher level calculations to the computer. FlowBotics Studio includes a demo project for the MH2 with pre-written walking algorithms.

Features

- Versatile 12DoF hexapod walking robot
- Control the robot via Bluetooth using FlowBotics Studio
- MH2 project within FlowBotics Studio with pre-written walking algorithms
- This kit is available with black anodized brackets and a black lexan body
- Battery, charger and USB PS2 controller (optional) sold separately

MH2 Hexapod Robot Specifications

- Servo Motion Control: Local Closed Loop
- Steering: Differential
- Number of legs: 6
- Degrees of Freedom per Leg: 2
- Motion Speed: Up to 10"/S
- Height (Body): 3.00"
- Height (Overall): Up to 6.00"
- Width (Body): 3.50"
- Width (Overall): 7.00" (Legs Straight)
- Length (Body): 13.00"
- Length (Overall): 14.50"
- Weight (w/out Batteries): 3lb 5oz.
- Ground Clearance: Up to 4.00"

Powering Options

The robot is compatible with the following batteries and chargers.

Chargers

- NiCad & Ni-MH Universal Smart Charger

Batteries

- 6.0 Volt Ni-MH 1600mAh Battery Pack
- 6.0 Volt Ni-MH 2800mAh Battery Pack

Includes

- Hexapod Body Kit - Mini (HBK-01)
- 3 x 2DOF Alum. Leg Pair (Black) (2DOFA-BLK)
- 6 x HS-422 (57 oz. in.) Standard Servo (S422)
- 6 x HS-645MG (76 oz. in.) Standard Sized Servo
- Serial to XBee adapter
- Bluetooth Module & USB Bluetooth
- SSC-32 Servo Controller (SSC-32)
- Includes FlowBotics Studio
- Includes MH2 project with sample code