



## Description

- Natural looking hexapod robot kit with 3 DOF (degree of freedom)
- Made with ultra-tough high-quality aluminum servo erector set brackets
- Kit includes BotBoarduino microcontroller
- Able to walk in any direction

The Lynxmotion Phoenix 3DOF Hexapod Robot Kit (BotBoarduino) has a more natural looking, more articulate leg and body design. The three DOF (degree of freedom) leg design means this robot can walk in any direction. The robot uses 18 Hitec HS-645 servos. The combo kit includes everything you need to build a functional robot except batteries. This is quite possibly the nicest looking commercially available hexapod out there.



### Controlling the Robot

The combo kit comes with the BotBoarduino. By offloading the servo pulse generation and sequence movement timing to the SSC-32 the BotBoarduino has plenty of power to do some really cool things. The Phoenix program allows the robot to walk with variable speed, in any direction (translation), or turn in place (rotation), or any combination of the two. The leg lift and ride height is adjustable as well as the gait walking speed. You can rotate the body in every axis. There are preset walking modes and gaits to choose from. All of these are accessible from the controller. The programming is already done for this robot. You no longer have to be a computer scientist to play with this level of robotics. The control options are: PS2 remote control, Xbee / DIY RC stick radio control, and TTL serial control.



### **The Mechanics**

The robot is made from ultra-tough high-quality aluminum servo erector set brackets.

Specifications

- Servo motion control: Local closed loop
- Steering: Omnidirectional
- Number of legs: 6
- Degrees of freedom per leg: 3
- Motion speed: 10"/S
- Ground clearance: Up to 5.50"

Powering options compatibility

- Chargers: NiCad & Ni-MH Universal Smart Charger
- Batteries: 6.0 Volt Ni-MH 1600mAh/2800mAh Battery Pack

### **What's Included**

- Phoenix 3DOF Hexapod (no servos, no electronics)
- 18 x Hitec 645MG servos
- BotBoarduino microcontroller
- SSC-32U Servo Controller
- USB Cable
- Servo Extender Cable - 6"



## Useful Links

Website

- [Lynxmotion User and Assembly Guides](#)

## Dimensions

- Size (overall): 14.50"(L) x 17.00"(W) x up to 5.25"(H)
- Size (body): 7.50"(L) x 5.88"(W) x 2.00"(H)
- Weight (w/out batteries): 3lb 10oz.