

# MAllegro Dog

Our new quadruped.





Twelve (12) active and four (4) passive degrees of freedom Low-ineritia leg design

Maxon motors and gear reduction boxes

On-board computer with RoboticsLab™

Dimensions: 450 x 240 x 500 mm (L x W x H)

Weight: 24 kg

The Allegro Dog can be tailored to your application.





### ROBOTICSLAB

and RealtimeRobotics™ pre-installed

To facilitate the productivity of robotics researchers and engineers, RoboticsLab™ aims at providing systematic support for the whole spectrum of development from prototyping to the robust control of hardware systems. Every aspect of our software and its use has been examined from the viewpoint of the robotic engineer, greatly reducing the need for specialized knowledge in the low-level details.

#### Rapid-prototyping Robotics Applications by RoboticsLab™

Mechanism/CAD	Kinematic analysis     Actuator analysis	Dynamic analysis     Workspace analysis
System Integration	Sensor/Actuator interface     Realtime control	Distributed control     Hardware-in-the-loop simulation
Algorithms	Robot control     Legged locomotion	Robotic manipulation     Navigation/Localization
Contents	Environment modeling     Event modeling	Robot modeling

#### RealtimeRobotics™

RealtimeRobotics™ is a RoboticsLab™ Premium Addon which implements a commercial RTOS-based real-time control framework for RoboticsLab™. It provides seamless integration of real robotics systems on RTOS(realtime OS) with user-created control algorithm plug-ins on RoboticsLab. Users can perform gard realtime control of real robots using RoboticsLab™ high-quality control SDK. This control SDK supports a variety of system interfaces such as EtherCAT, CAN, IEEE1394 as well as a number of PCI and ISA based DAQ boards.

## Robotics Software Development Environment with Dynamics/Control Engines

SimLab is a robotics software development and consulting company specializing in dynamic simulation. Based on a custom dynamics engine (developed originally in cooperation with Stanford University, USA), SimLab has developed the next generation commercial robotics simulation platform - RoboticsLab™. Since its release in 2009, RoboticsLab™ has been adopted by universities, research institutions, and commercial companies around the world. SimLab continues to focus on the integration of RoboticsLab™ with our RTOS based control framework - RealtimeRobotics™.

