

# WARTHOG™

## UNMANNED GROUND VEHICLE



### ALL-TERRAIN ROBOTIC DEVELOPMENT PLATFORM FOR RAPID PROTOTYPING



#### RUGGED & VERSATILE

Warthog is engineered to go where no other robot can. Its rugged, lightweight steel and aluminum build gives it low ground pressure and traction to tackle all types difficult terrains. With built-in bilge pumps and an IP rating of 65, Warthog is capable of brief periods of locomotion in water at speeds up to 4 km/hr.

#### ROS READY

Warthog comes with the open-source Robot Operating System (ROS) preinstalled and configured. Rich demos and tutorials are provided, along with a 3D simulation model for Gazebo to help you get started quickly and hassle-free.

#### DESIGNED FOR RAPID CUSTOMIZATION

When research changes, so should your hardware. Integrate third-party sensors and manipulators quickly and easily with flexible payload mounting, easy to access power and reconfigurable I/O. Mobile robot prototyping has never been faster or easier.

A FEW OF THE INNOVATIVE FIRMS WHO USE OUR ROBOTS



Contact us today for pricing and a free 30 minute technical assessment: 1-800-301-3863

# TECHNICAL SPECIFICATIONS



SIZE AND WEIGHT	
EXTERNAL DIMENSIONS (L x W x H)	1.52 x 1.38 x 0.83 m (4.9 x 4.5 x 2.72 ft)
BASE WEIGHT (includes base battery pack)	280 kg (551 lbs)
GROSS VEHICLE WEIGHT	590 kg (1300 lbs)
GROUND CLEARANCE	254 mm (10 in)
SPEED AND PERFORMANCE	
MAX. PAYLOAD	272 kg (600 lbs)
MAX. INCLINE	35 - 45°
MAX. SPEED	18 km/h (11 mph)
SUSPENSION	Geometric Passive Articulation
TRACTION	24" Argo tire (24" Turf tire or 12" wide Quad Track System optional)
BATTERY AND POWER SYSTEM	
BATTERY CHEMISTRY	AGM sealed lead acid (Li-ion optional)
CAPACITY	105 Ah at 48 V, expandable to 110Ah with Li-ion option
CHARGE TIME	4 hrs
NOMINAL RUN TIME	Lead acid: 2.5 hrs                      Li-ion: 3 hrs
USER POWER	5 V, 12 V Fused (24 V, 48 V optional)
INTERFACING AND COMMUNICATION	
CONTROL MODES	Remote control, Computer controlled velocity commands (v, θ), Indoor/outdoor autonomy packages
FEEDBACK	Battery voltage, motor currents, wheel odometry, control system status, temperature, safety status
COMMUNICATION	Ethernet, USB, Remote Control, Wi-Fi
DRIVERS AND APIs	Packaged with ROS Kinetic (includes RViz, Gazebo support), Matlab API available
INCLUDED HARDWARE	IMU, encoders, Onboard computer, E-Stop (hardware loop), E-Stop (software loop), removable mounting plates, bilge pumps, brakes
ENVIRONMENTAL	
OPERATING AMBIENT TEMPERATURE	-20 to 40 °C (-4 to 104 °F)
STORAGE TEMPERATURE	-40 to 50 °C (-40 to 122 °F)
IP RATING	IP65 - Vehicle is designed to float and should not be fully submerged

## CONTACT US FOR MORE INFORMATION

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