# JACKAL™ UNMANNED GROUND VEHICLE





# READY TO GO RIGHT OUT OF THE BOX

With an on-board computer, GPS and IMU fully integrated with ROS, Jackal has out-of-the-box autonomous capability. With wireless connectivity via Blue-tooth and WiFi, Jackal is ready to go as soon as you turn it on!

# MADE FOR THE GREAT OUTDOORS

Jackal's chassis is made entirely from welded aluminum and provides IP65 protection when the main bulkhead is sealed (optional). The high torque 4x4 drivetrain gives Jackal maximum traction, with enough on-board power available to traverse obstacles or unconsolidated terrain.

#### SMALL SIZE, BIG CAPABILITY

Swap payloads off Jackal's customizable mounting plate. As with all Clearpath robots, Jackal is compatible with many robot accessories to quickly expand your research and development. Additionally, users receive end-to-end visibility of Jackal's operation with the comprehensive ROS API.

#### A FEW OF THE INNOVATIVE FIRMS WHO USE OUR ROBOTS















### **TECHNICAL SPECIFICATIONS**





<b>DIMENSIONS</b> L x W x H	508 x 430 x 250 mm 20 x 17 x 10 in	OPERATING TIME	2 hrs maximum 8 hrs typical	COMMUNICATION	Ethernet, USB 3.0, RS232, IEEE 1394 avail.
WEIGHT	17 kg 37 lb	DRIVE POWER	500 W	DRIVERS/APIs	Packaged with ROS Kinetic, Mathworks
PAYLOAD A: all terrain; B: maximum	A: 10 kg / 22 lb B: 20 kg / 44 lb	BATTERY	270 Watt hours Lithium Ion	CONTROL MODES	Open-loop Wheel Velocity Kinematic Commands
MAXIMUM SPEED	2.0 m/s 6.6 ft/s	ENCODERS	78,000 pulses/m Quadature		
CLEARANCE	65 mm 2.6 in	USER POWER	5V @ 5A 12V @ 10A Vbat (24V Norm) @ 20A	FEEDBACK	Battery+Motor Current Wheel Velocity Integrated GPS, Gyroscope and Accelerometer

# SAMPLE APPLICATIONS

#### **MULTI-ROBOT SYSTEMS**

#### **PERCEPTION & NAVIGATION**

#### **LAB TEACHING TOOL**

#### **ENVIRONMENTAL MONITORING**



Jackal is engineered with a **scalable** and **open architecture** making it the ideal platform for testing and developing multirobot systems.



Get your research rolling faster with camera, GPS and laser packages, all of which include documented libraries and programming examples.



Jackal is **lightweight, compact** and **easy to program** - the perfect platform to help build courseware that students will be excited about!



Configure Jackal for teleoperation or autonomy in outdoor applications. The weatherproof, rugged chassis makes it ideal for environmental monitoring.

# Génération ROBOTS

Marque du groupe NGX ROBOTICS

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