Panther

Mobile Robot Platform for Outdoor Applications

Panther is a rugged **Unmanned Ground Vehicle** (UGV) platform, engineered **for demanding outdoor environments**. Equipped with high-profile wheels and four powerful BLDC motors, plus an IP54/66-rated chassis, it's designed to tackle the toughest challenges. Panther's versatility enables seamless integration of LIDAR, 3D cameras, manipulators, and other components through its V-slot mounting rail, available power ports, and extensive communication interfaces. With open-source ROS and ROS 2 drivers, along with a robust suite of software examples, Panther makes developing your product or research project both simple and intuitive.

Key Features

55 kg
weight

100 kg
payload

4-8 h
runtime

2 m/s
max speed

4 x 473 W
BLDC motors

IP54 / IP66

water protection

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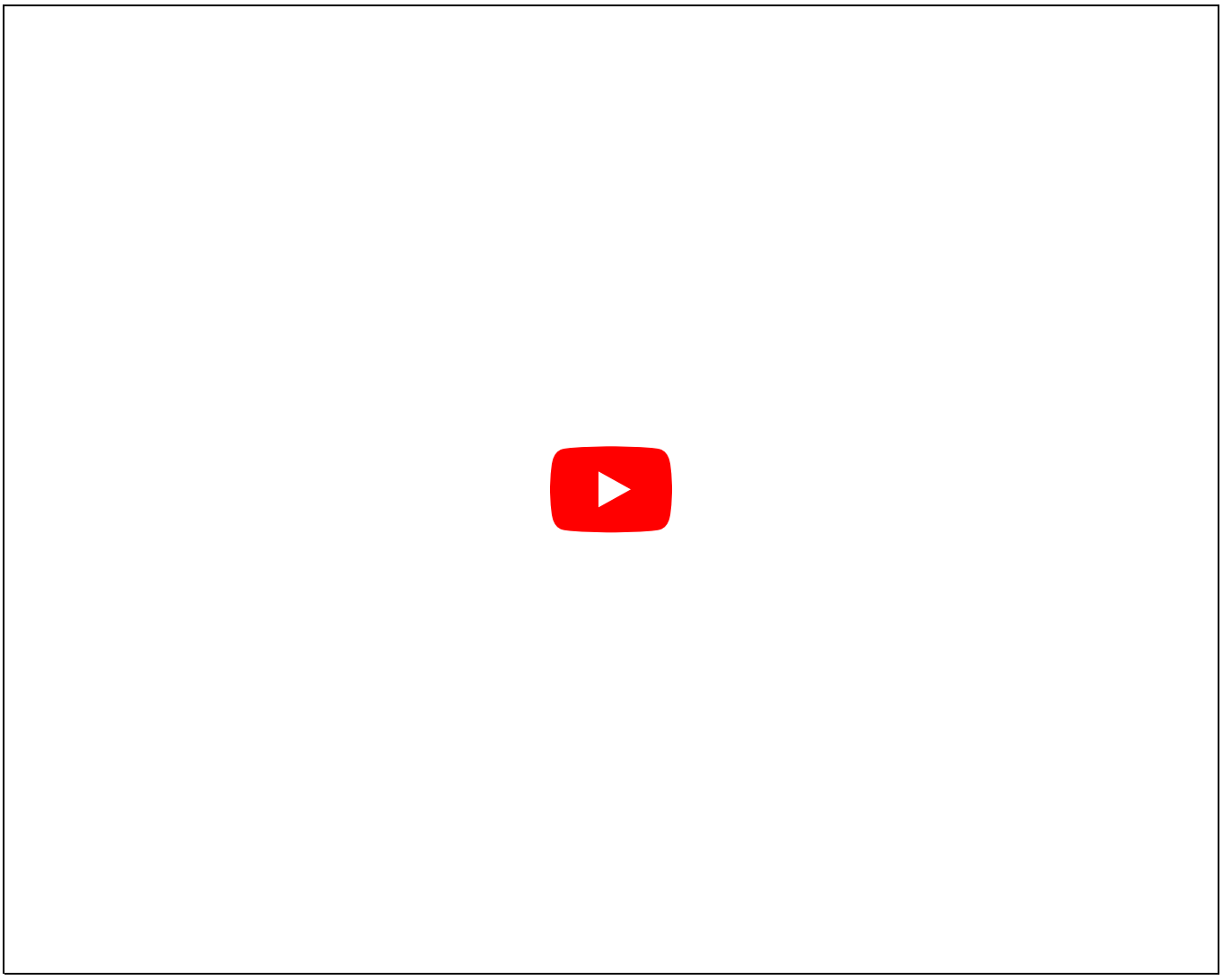
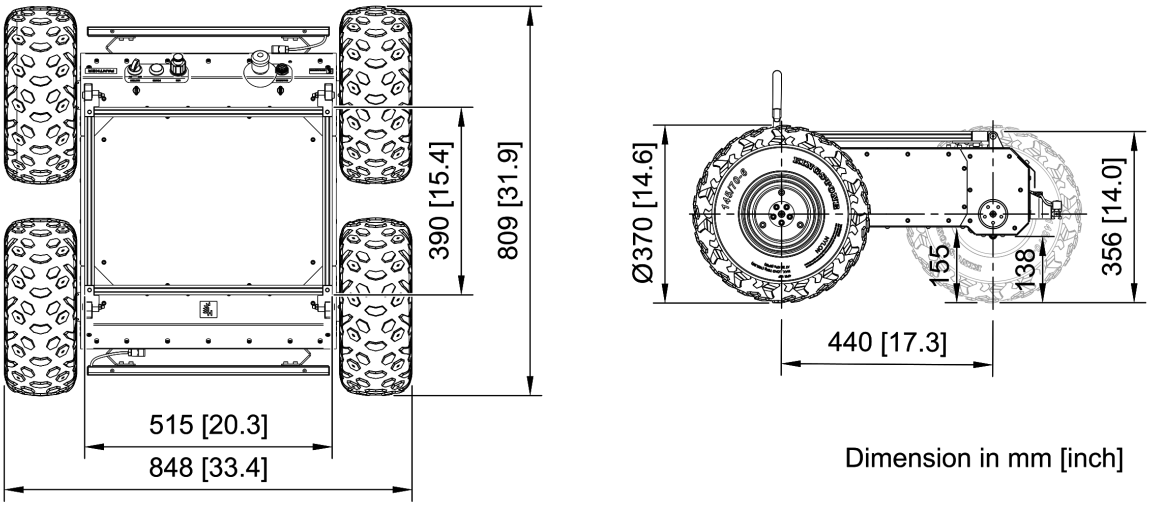
Request a quote
Read customer stories

Go through the manual
Find additional equipment

Learn how to start
Get familiar with ROS interface



Specification



Basic params	
max speed	2 m/s
weight	55 kg
protection index	IP54 / IP66
operating temperature	-20°C to 50°C
charging temperature	0°C to 45°C
run time (typical case)	3.5 - 8 h (on 720 Wh battery)
minimum ground clearance	138 mm

Traction	
hill climb grade	96% (44°)
climb grade with 50kg cargo	90% (42°)
maximum carrying capacity	100 kg
nominal shaft torque	34.5 Nm
maximum shaft torque	60 Nm
nominal total traction force	725 N
maximum total traction force	1511 N

Components

Component	Description
Motors	4 durable BLDC motors with 473 watts of power (900 W instantaneous power) each and planetary gears with a maximum torque of 60 Nm
Battery	Li-Ion 36 V (720 or 1440 Wh)
User Power Ports	**5 V** (limited to 15 A), **12 V** (limited to 25 A), **19 V** (limited to 10 A) and AUX Power which is the Battery voltage (**32 - 42 V**) rated at 10 A max. Up to 780 W of electrical power to the user's devices in total
User Computer	**ASUS® NUC** (Intel® Core i7-1360P, 16GB RAM, 500GB SSD, GPU: Intel® Iris® Xe), **Lenovo ThinkStation P360 Tiny** (Intel® Core i7-12700T, 16GB RAM, 512GB SSD, GPU: NVIDIA® T1000), or **NVIDIA® Jetson Orin NX** (ARM® Cortex® A78AE, 16GB RAM, 512GB SSD, GPU: NVIDIA® Ampere)
Router	Teltonika RUTX11 - Dual-band (2.4 GHz / 5 GHz), Access Point / Client Mode, 4G LTE CAT 6, Bluetooth 4.0 LE, GNSS (GPS, GLONASS, BeiDou, Galileo and QZSS)
IMU	PhidgetSpatial 3/3/3 Precision (3-axis compass, a 3-axis gyroscope, and a 3-axis accelerometer) Inertial Measurement Unit
Front and Rear Bumper Lights	The signal lighting consists of 46 individually addressable pixel LEDs integrated into an aluminum profile on the robot's bumpers.

Gallery

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Default Package Content

The default Panther package contains:

- Panther mobile base
- charger
- gamepad

The robot is shipped in a wooden crate (1000 x 970 x 660 mm).

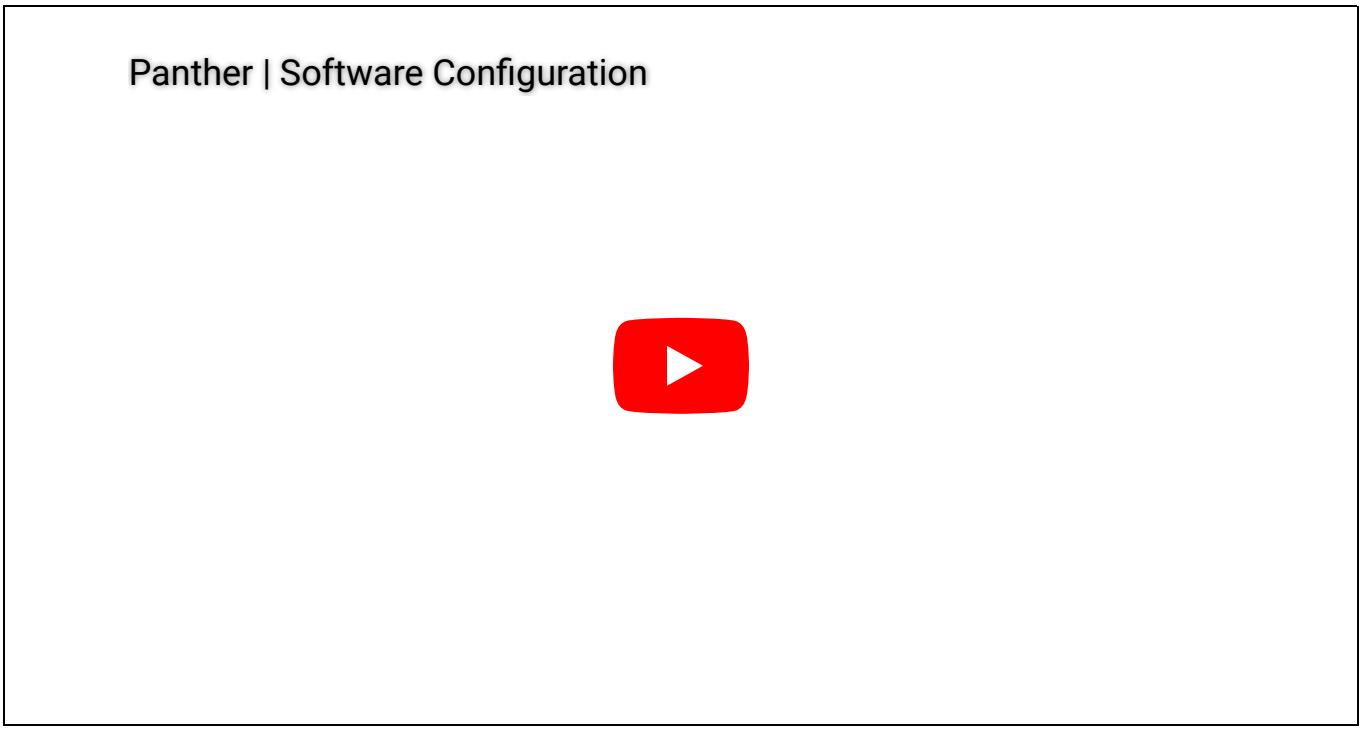
INFO

The content of the package may vary depending on the final configuration of the robot.

Find additional equipment

Getting Started Videos

Panther | Unboxing & quickstart guide



Request a Quote

Discover Panther's exceptional durability and versatility, designed to excel in challenging outdoor and industrial environments. To request a quote for your project, please fill out the contact form below. Our platform is ready to support your unique solutions, allowing you to build and integrate your own applications on top of Panther.

Request a Quote

Name *

Your name

E-mail *

Your email

Phone (optional)

Your phone number

Tell us about your technical requirements *

Your technical requirements

What use case you would like to use Panther for? (optional)

Your use case

How quickly you would like the robot to be delivered? (optional)

Delivery time

Send