



Clearpath Dingo

Clearpath Dingo is a light indoor research robot, coming in two versions – with differential or omni-wheel drive. Its open architecture, a wide range of sensors and the possibility of installing a lightweight Kinova arm, make it a perfect solution for many research projects as well as education. The manufacturer has adapted this platform to work with ROS and Gazebo, making it easy to simulate, program and control.

Parameter	Dingo-D	Dingo-O
	Differential drive	Omni-wheel drive
Dimensions	551 x 517 x 110 mm	686 x 517 x 114 mm
Weight	9.1 kg	13 kg
Carrying capacity	20 kg	20 kg
Maximum speed	1.3 m / s	1.3 m / s
The number of slots for expansion modules	2	4
Control modes	Kinematics, engine voltage control speed setting	Kinematics, setting wheel speed
Basic sensors	Battery and motor current, speed and wheel offset, IMU	
Available ports	Ethernet, USB, RS232	

Typical power consumption	80 W	170 W
---------------------------	------	-------

Available modules:

- lead-acid battery (18Ah @ 12V) – about 2 hours of work for Dingo-D, 1 hour of work for Dingo-O,
- Lithium-ion battery (28.5Ah @ 14.4V) – about 4 hours of work for Dingo-D, 2 hours of work for Dingo-O
- Computer module – Mini-ITX Computer or NVIDIA Jetson Developer Kit
- Empty module for robot's own equipment

Expansion possibilities:

- Kinova light robotic arm
- Sensors: LIDAR, IMU, etc.
- 2D / 3D cameras
- Software for autonomous operation