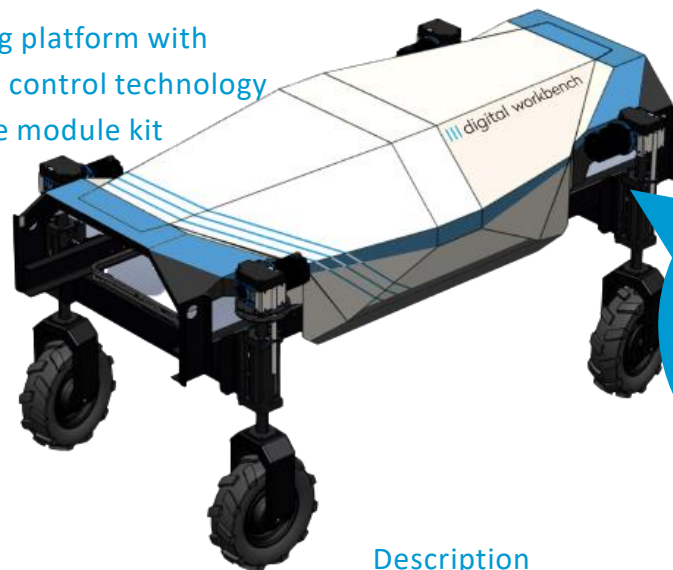


Tipard 350

Autonomous robot testing platform with one-of-a-kind chassis and control technology packed with an innovative module kit



Overview

Thanks to its innovative chassis and control technology, exceptional maneuverability and variable clearance, the autonomous all-terrain carrier vehicle Tipard 350 offers almost unlimited variety in open-field applications, even in very difficult terrain. In tight and narrow spaces inside buildings and halls, Tipard 350 remains extremely maneuverable. One of its best features is the innovative module kit: thanks to open hardware and software interfaces, it is easy to integrate custom or proprietary applications and scale the system up or down.

Description

The robot platform Tipard 350 is very robust but extremely light, weighing only 350kg. It supports loads of up to 150kg. Vibration-free mounting of the electronics carrier protects the electronic components from harmful environmental influences. Its unique air-to-air heat exchanger sits inside an IP65-protected control box and reliably moves heat away from the system. The integrated dual-RTK GNSS receiver ensures precise steering and excellent self-localization. Camera-controlled steering can be activated to make sure that the vehicle stays on course when working with row crops. Movement is conveniently controlled via a remote control unit, while retrieval of machine data and configuration of the automatic mode is handled via an intuitive web interface. The primary 48V energy grid can be equipped with different battery packs and/or a range extender. Tipard 350 has a permanent 4-wheel drive. Because the wheels can independently turn a full 360 degrees, different steering regimes can be used. The chassis clearance can be adjusted between 0.5m and 0.7m (even more in special builds). Hydraulic coupling of the individual wheels allows the chassis to self-level. If needed, the controller can manually adjust both clearance and leveling. Telescopic axles make adjusting the track width easy. A unique feature is the toolless change between track widths by performing a 90° change in direction. Depending on the job, the controller can switch between two drive modes: the slower mode 1 for precise maneuvering or the faster mode 2 for getting from point A to point B.

Technical Data:

Name/Type	Tipard 350
Dimensions	width: 1.20m to 1.70m; max. length: 2.20m; height: 1.10m to 1.30m
Weight	max. gross weight 500kg (machine weight ca. 350kg; load: ca. 150kg)
Axle track	1.0 to 1.5m (custom tracks upon request)
Clearance	0.5 to 0.7 m (custom clearances upon request)
Speed	drive mode 1: < 2km/h drive mode 2: < 6km/h
Drive type	permanent 4-wheel drive powered by hub motors
Operating time	dependent on power supply and application
Energy supply	different battery packs, range extender or fuel cell possible with optional charging station
Operating temperature	0 to 50°C
Storage temperature	-10 to 60°C
Noise emission	< 60dB
Steering	4-wheel independent steering (360°)
Self-localization	via modular dual-RTK GNSS receiver with heading
Chassis	self-leveling chassis (with optional human control)
Camera-controlled steering	Multiple row detection, curve detection and 3D detection improve precise steering
System voltage	48 V / 24 V
Interfaces for third-party systems	Ethernet / CAN
User interface	touch display, web interface; optionally: portal connection
Brakes	driving brake: electric; locking brake: spring applied brake
Safety features	4x emergency stop, geo-fencing; optionally: safety cord
Transport options	harness anchor points for trailer transport (for lashing and lifting)

Price/Delivery options

List price	price on request
Delivery time	10 to 16 weeks depending on component availability and inventory
Included components	remote control unit, basic battery pack (not included: SIM card, course plotter)

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