



AI in Motion
SHERPA

Sherpa by Ati Motors

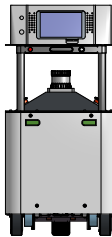
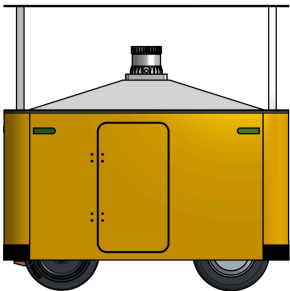


About Sherpa

The future is autonomous and electric. The twin forces of autonomy and electric are coming together to create such an impact in the automotive, cargo and material movement industry. Industry 4.0 is the current avatar of factory automation where everything in the factory is turning smart and digital.

The Sherpa product line is an autonomous, electric, compact carrier with a unique 3 wheel design for agility and manoeuvrability. This self-driving autonomous vehicle needs no markers, works with people and replans routes dynamically to avoid obstacles. Its innovative ability to localise without needing GPS signals from satellites allows it to seamlessly move between indoor and outdoor routes. The setup is quick with no infrastructure required and it is compatible with cellular network also in addition to WiFi.

There are two variants of Sherpa: Sherpa Lite and Sherpa Tug

Parameter	Sherpa Lite	Sherpa Tug
		
Width, Length and Height	400 mm X 700 mm X 740mm	600 mm X 1150 mm X 950 mm
Payload	50 kgs on load deck	-
Towing Capacity	-	~ 1000 kgs
Ego-weight	~ 75 kgs	~ 185 kgs
Turning radius	0.5 m	2.0 m
Battery life	Li-ion battery, swappable, 8 hours	
Charging time	2 hours charging time	
Max speed	1.5 m/s for shop-floor (internal ops)	
Braking distance (typical)	~ 0.5 mts (at 1 m/s)	
Gradient	Upto 2%	
Tyres	Solid Rubber Tyres	
Brakes	Electro-mechanical braking	
Sensors	Lidar (3D and 2D), Camera, IMU, Wheel Encoder	
Software Updates	OTA	



Operating Environment:

Infrastructure Agnostic	
Aisle width	1m
In-place turn	Available
Configurable speed	Upto 1.5 m/s
Floor condition	Tough (Oil, Chipped Flooring etc)
Modes	Indoor and within campus outdoor
Lighting Conditions	Can handle twilight / dark mode operation
Environment	Temp +5°C to +40°C Humidity (5% - 90% non-condensing) Splash proof

Support:

Tele Assist over 4G or WiFi

Self diagnostics and Remote diagnostics

Customer dashboard - (Sherpa) ego-view visualisation

Future Ready:

Sherpa is an Industry 4.0 and Industrial IoT ready product. Its advanced API allow integration with other IoT products, ERP or MES systems. Real time monitoring is available and analytics can be easily exported into your reporting system of choice. The product is also modular to allow easy integration with other systems like bar code readers or conveyors as needed.