

MMP-40X-Basic

Mobile Robot Platform

Get Your Ideas Rolling

20 Years in business

The MMP-40X robot platform has proven to be a rugged and reliable workhorse for research, education, product development and mobile video applications. It is the most capable of the Machine Lab platforms with its ability to easily climb stairs and carry up to 40 pounds of additional payload through rough terrain. The MMP-40X can tackle sand, gravel, rocks, mud, snow, carpet and rough concrete.



Applications:

- Education
- Inspection
- Remote filming
- Autonomous navigation
- Sensor data acquisition
- Research & Development



A modular 80/20 rail system can easily be implemented to mount equipment, sensors, laptops or mechanical accessories. (sold separately)



All of The Machine Lab's basic platforms come with motors, proportional motor controllers, batteries, quadrature encoders, external charge jack and LED fuel gage. The MMP-40X also has accessible on board power distribution with 5V and 12V, 3 amp regulated outputs to power other devices such as radio receivers, micro controllers, video equipment servos or sensors or other equipment.

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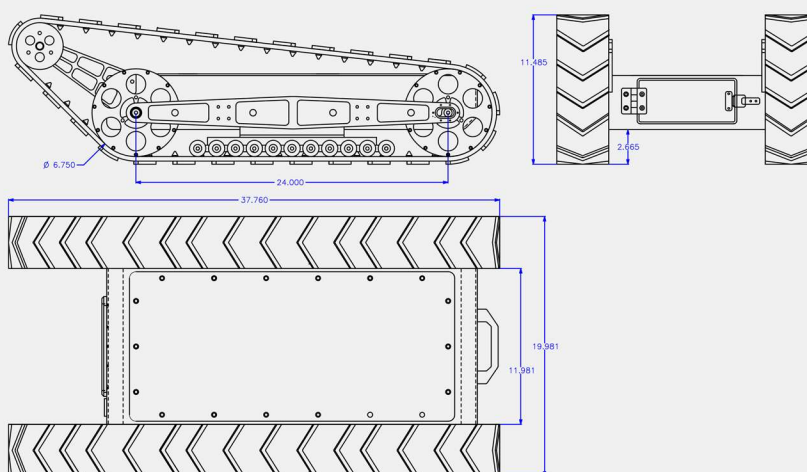
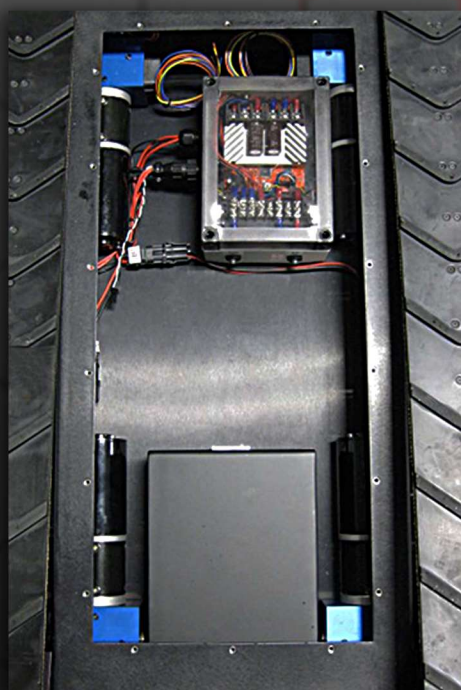
The Machine Lab, Inc.
www.themachinelab.com



MMP-40X-Basic

Mobile Robot Platform

Size	38" L x 20" W x 12H
Weight	55 pounds with battery
Payload	40 pounds additional (140 pounds pull weight)
Drive Type	<ul style="list-style-type: none"> - 2 or 4 Motor drive, DC brushed planetary gearmotors with dual quadrature encoders. - Tracked tank steering, climbs 40 deg. inclines, climbs stairs. - Custom manufactured rubber tracks with aggressive chevron paddle. - Reliable in all indoor and outdoor terrain including sand, gravel, snow, concrete and carpet.
Speed	- 5 ft/sec (3.4 MPH)
Electronics Box Motor Controller Control Protocol Encoders Power Distribution Connectors External Charge Jack Fuel Gage	<ul style="list-style-type: none"> - Sealed waterproof enclosure with removable lid. - Dual Channel 40 Amp fully proportional speed control with encoder feedback inputs. - Hobby-type PWM, Analog potentiometer 0-2V, RS-232, Packetized RS-232 Serial, USB - Dual quadrature optical encoders - Regulated outputs for 5V and 12V, 3 amps each. - High quality screw on type multi-pin Woodhead connectors/cables, comes with mating cables. - Easy access external charge jack and power switch with protective shroud. - External 8 segment LED battery fuel gage.
Robot Details	<ul style="list-style-type: none"> - Water resistant, dust resistant - Easy swap front battery compartment, no tools necessary - All electronics modularized and field replaceable - Triangular track geometry for easy stair climbing - Reinforced axle supports - External LED battery fuel gage
Battery Details	<ul style="list-style-type: none"> - 25.6V LiFePO4, 12.8 Ah - LiFePO4 is a very robust and safe battery chemistry - 1 battery included
Run Time	- Approximately 4-6 hours. Terrain dependent
Battery Charger	- 25.6V Smart charger included.
Additional accessories	80/20 rail system for mounting electronics, laptops, sensors, mechanical components. Futaba 6 channel radio controller



MMP-40X Mobile Robot Platform

6-15-16

Black Anodized
Aluminum Chassis

Dimensions in inches

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