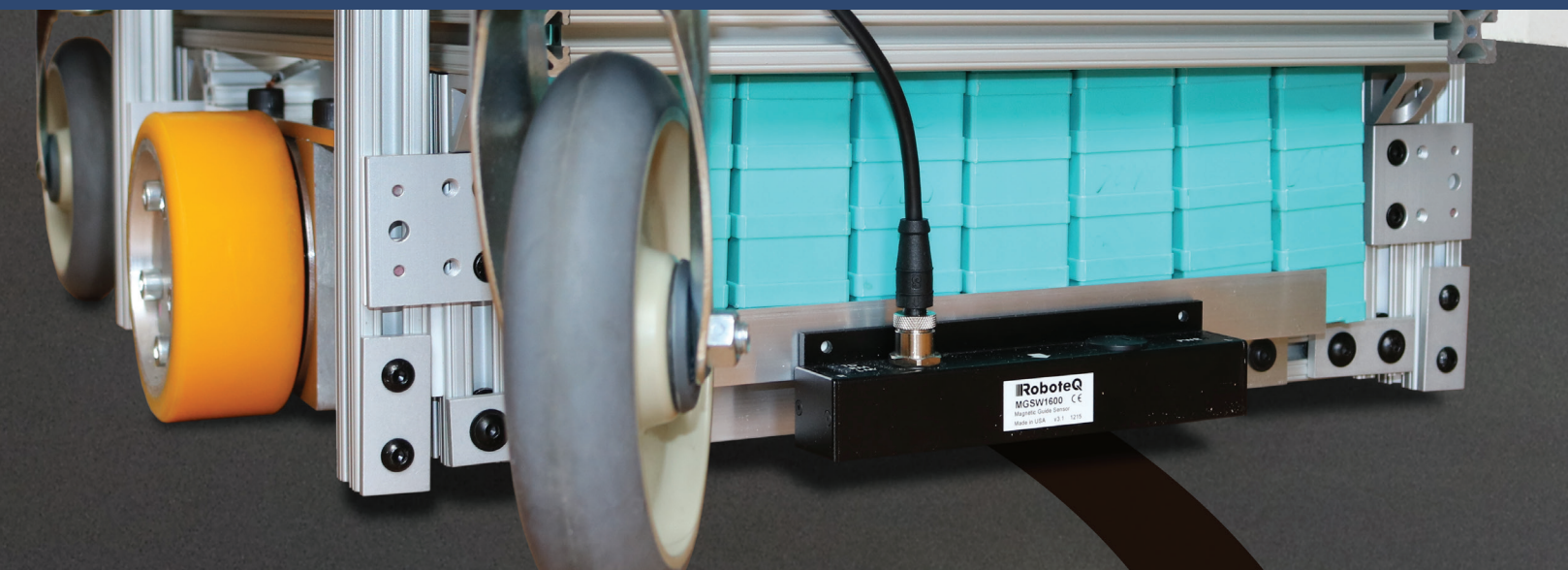


Navigation
SENSORS & AGV
SOLUTIONS

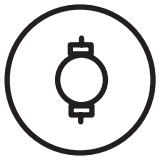




Navigation **SENSORS & AGV** SOLUTIONS

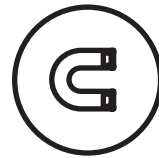
Building AGVs or Mobile Robots has gotten much easier thanks to Roboteq's comprehensive solutions. From Motion Controllers, Guidance Sensors, Power Management and Software, to full AGV kits, we have all the parts and expertise you'll ever need.

ROBOTIZE YOUR MATERIAL HANDLER



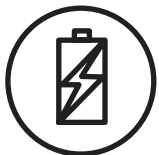
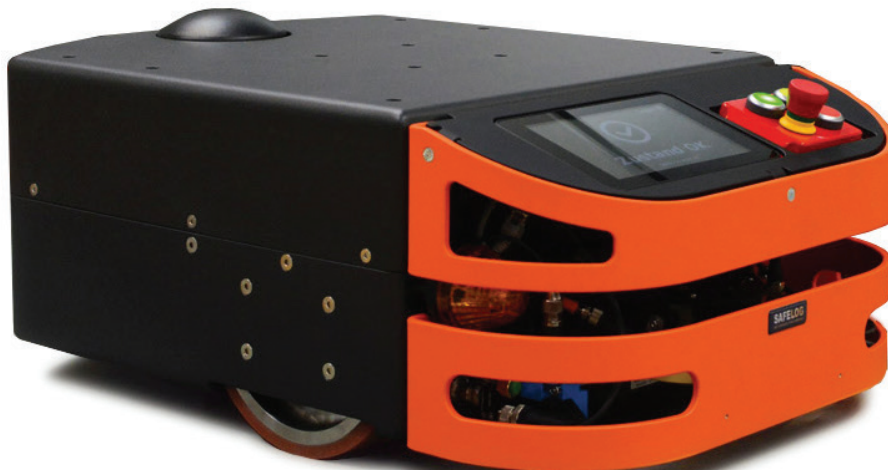
Motor Controllers

Choose from the World's largest catalog of dual channel Brushed, Brushless or AC Induction Motor controllers.



Line Following Sensors

Our Magnetic and Optical Guide Sensors are the World's most accurate and the easiest to integrate,



Battery Management Systems

Use our BMS and harness the fast charge, high power density, and low cost of ownership of Lithium Ion



Robot Software

Load our free AGV Guidance Software and your Robot will be on its way within minutes

CHOSEN BY THE WORLD'S TOP AGV MAKERS

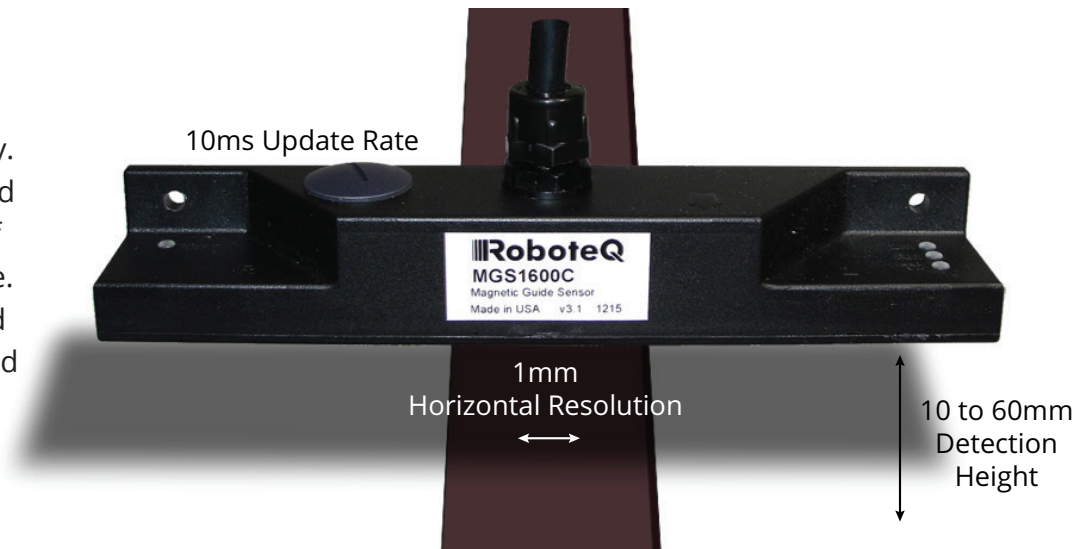


Roboteq's Magnetic Guide Sensor is the Industry's most accurate and easiest to use. We also offer the widest selection of dual channel motor controllers. No wonder Roboteq has been selected by the World's Finest manufacturers AGV and Mobile Robots makers.

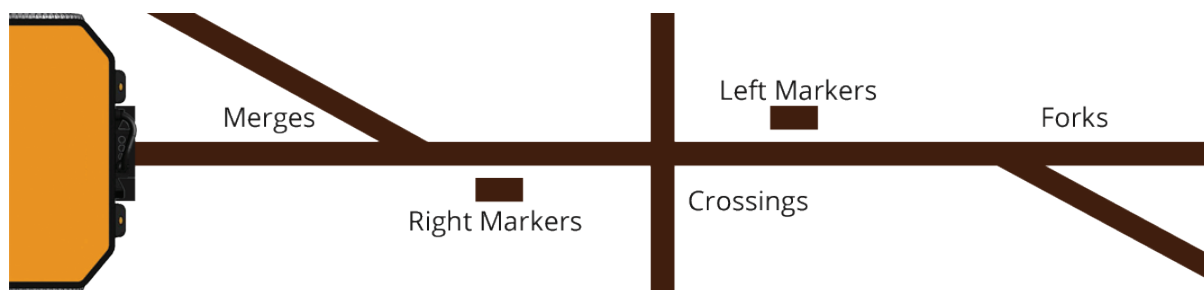
Scan to
Play Video

RELIABLE, FAST, ACCURATE MAGNETIC TRACK FOLLOWING

Magnetic track guidance is one of the simplest, most reliable and durable technology. A track can easily be laid and modified using self adhesive magnetic tape. The tape's invisible field position can be detected by Roboteq's sensors and used to steer the AGV.



EFFECTIVE FORKS AND LOCATION MARKERS MANAGEMENT



The sensor simultaneously follows and reports the position of two (left and right) tracks. With this information, the AGV can be made to follow the desired path at forks.

The sensor can also detect segments of tape of opposite magnetic polarity as location markers. Left and Right markers can be individually detected. Additional location information can be encoded using different marker lengths and patterns.

BUILD AN AGV WITH ONLY TWO COMPONENTS

A minimal but complete and fully autonomous AGV can be built with as little as two Roboteq components: A magnetic (or optical) guide sensor, and one of the many dual channel motor controllers available in Roboteq's catalog. Connection between the two parts requires only three wires - two power and one signal. The guidance software runs inside the controller and is written using its simple but powerful MicroBasic language.

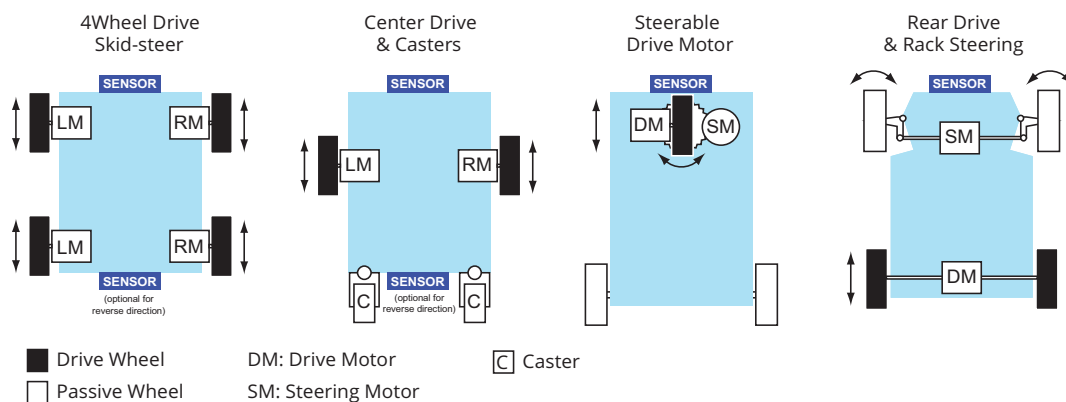


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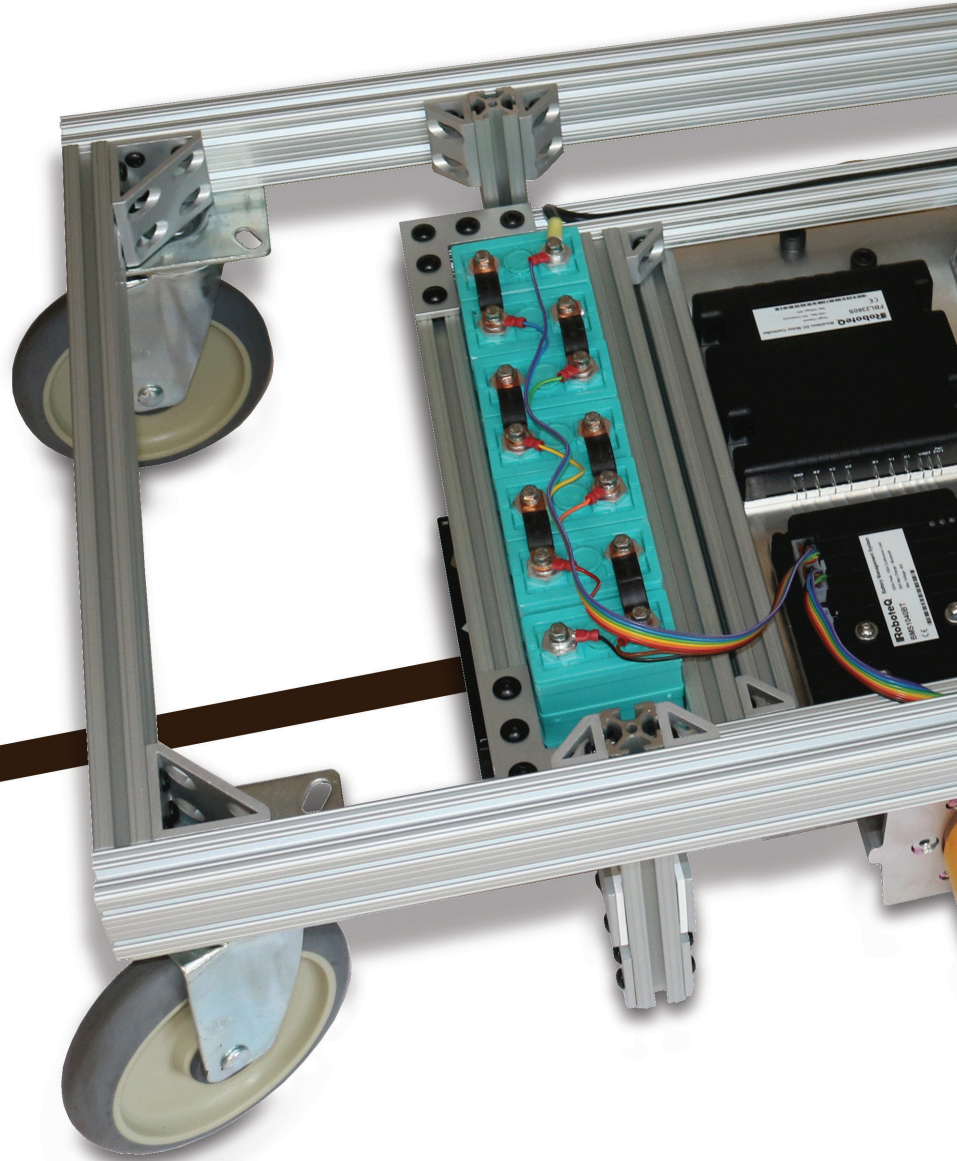
ALL CHASSIS DESIGNS SUPPORTED

The sensor can be mounted and provide guidance on each of the four classical Mobile Robot drive and steering chassis.

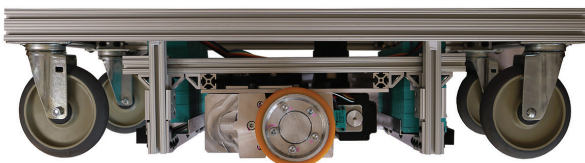


AGV MADE SIMPLE

We make building an AGV so simple that we designed our own demonstrator using all our components together with parts of selected partners. Offered in Kit form, this AGV can serve as a simple ready-to-use Robot, or as the Chassis + Drive + Navigation foundation for a more sophisticated system. Its fast charging 1000Wh battery ensures several hours of operation between charges.



FEET ALWAYS ON THE GROUND



The AGV frame is made of high grade aluminum, uniquely designed to bear heavy loads while still being as light weight as possible. The Motor Unit freely moves up and down so that all 6 wheels always touch the floor. The chassis can be easily customized to user specifications such as hooks and cargo platforms.

EASY & FAST TO ASSEMBLE

Well identified parts and easy-to-follow instructions make the assembly of this AGV as simple as putting together Swedish furniture.

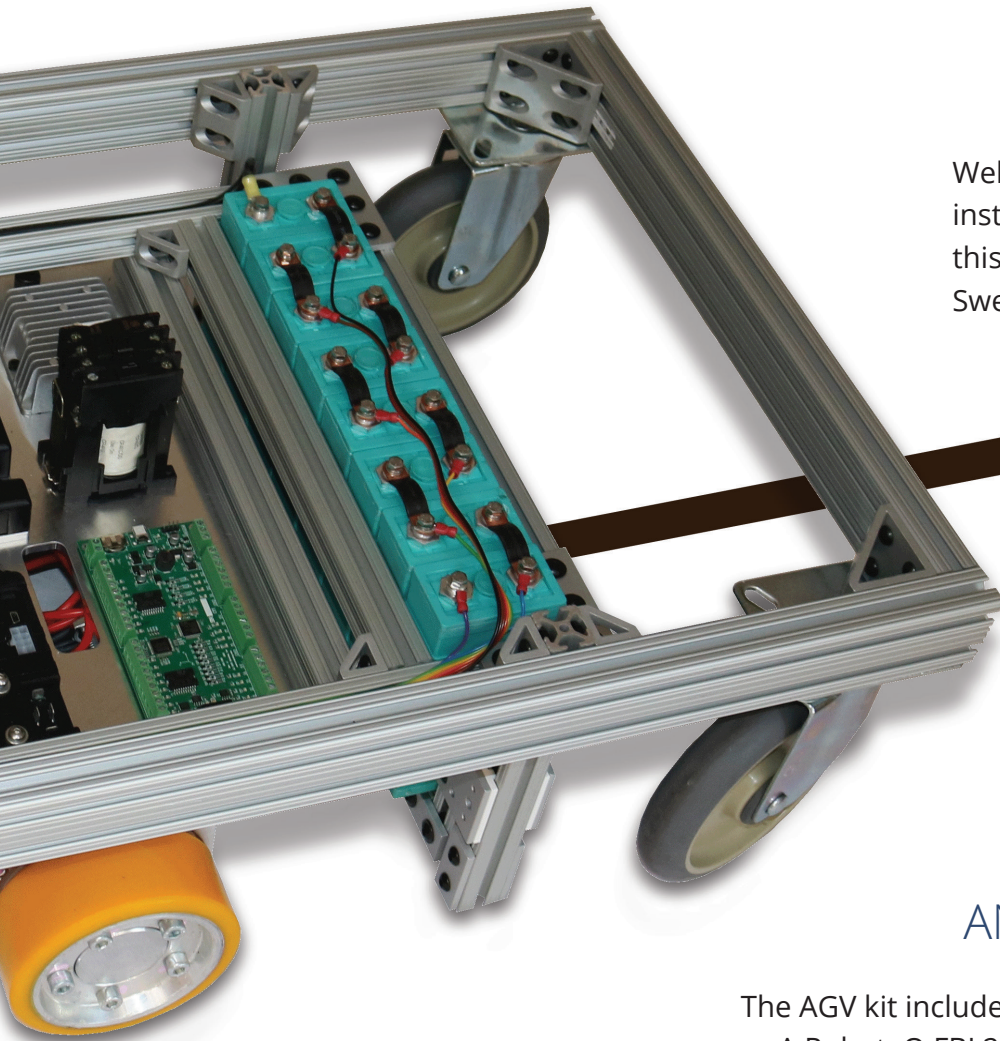
GET THE KIT AND START BUILDING

The AGV kit include:

- A RoboteQ FBL2360 Dual Channel Motor Controller
- Industrial grade aluminum frame and caster wheels with all screws and brackets
- One or two MGSW1600 Magnetic Guide Sensors
- One BMS1060 Lithium Battery Management System
- Switches and wire harnesses with all wires pre-cut and connectors pre-wired
- Two compact, high torque, precision Brushless DC Motors with encoders
- Optional: A RoboteQ RIOX eXtender with IMU

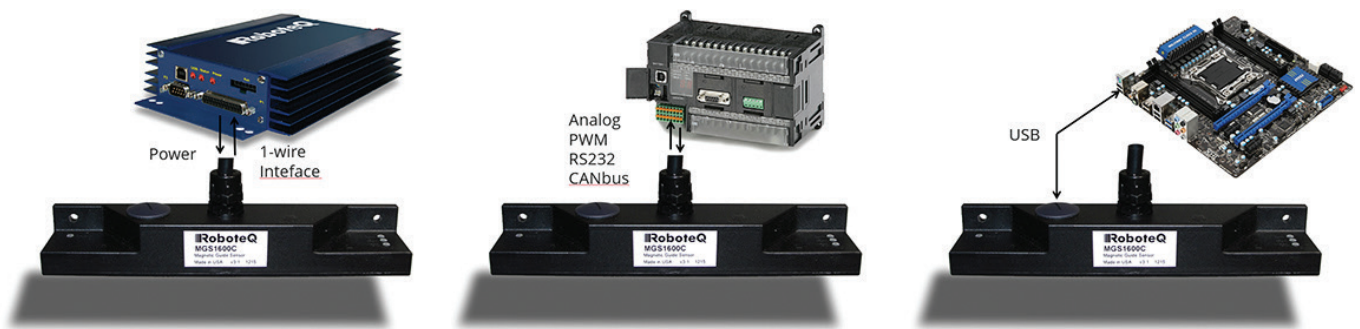
The kit **DOES NOT** include:

- Lithium Battery Cells
- Safety Laser Range Finder



EASY TO INTERFACE WITH ANYTHING

Our sensors can be interfaced directly with any of Roboteq's motor controllers. The sensors can also be connected to any PLC, PC or single board computer using a choice of Analog, PWM, RS232, USB or CANbus interfaces.



SEE THE INVISIBLE AND STOP GUESSING

The shape and strength of the track's magnetic field under the sensor can be visualized in real-time in Roboteq's free PC utility. This unique capability takes the guessing out of troubleshooting.



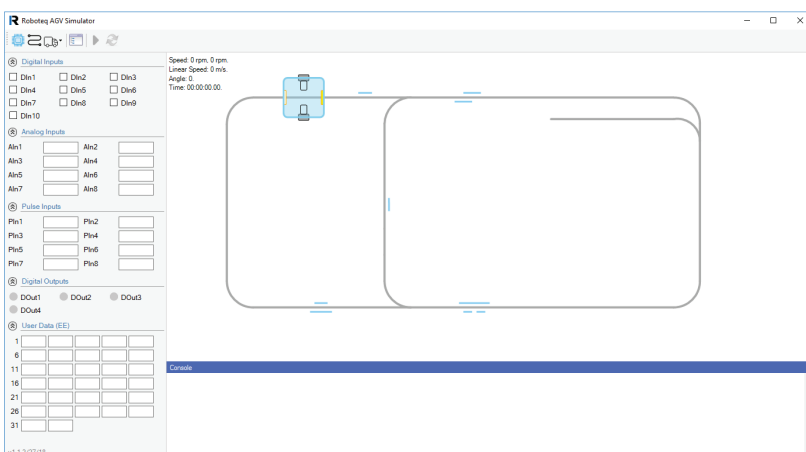
WE WROTE THE SCRIPT SO YOU WON'T HAVE TO

Following tracks, taking forks, detecting location markers, deciding to turn and stop to a charge station, doing 90 or 180 degrees turns, stopping for emergencies. These, and more are all pre-assembled functions inside our free AGV software. You'll even find Robot Kinematics functions for moving along unmarked paths, using motor encoders and gyroscope. Your AGV will be up and running in no time.



SIMULATE BEFORE YOU RUN

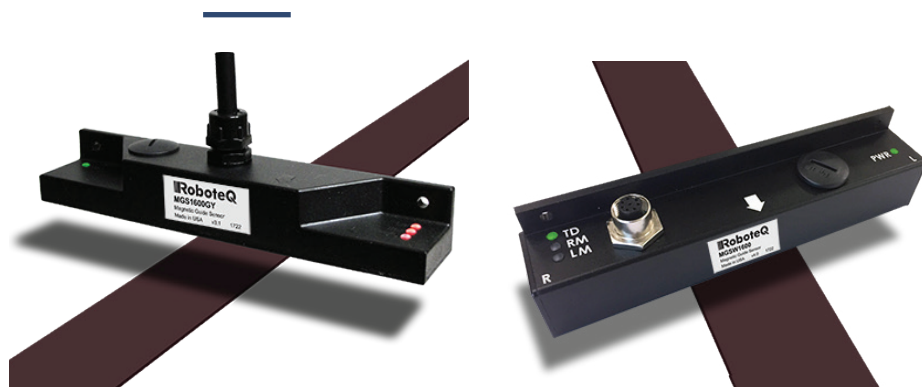
Program, test and fine tune your Automated Guided Vehicles from the comfort of your PC. The RoboAGVSim simulator will move the AGV on the screen using the Robot's real physical characteristics, such as wheel base, gear ratio, wheel diameter and sensor distance from the pivot point. Once the program has been verified in the simulator, it can be loaded into the Roboteq controller that is on the real AGV.



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Play Video

TOUGH AND TOUGHER

Chose between ABS plastic with 2m cable, or all-metal with a waterproof industrial M12 connector. Built to last, both are equally IP67 water and dust resistant



WIDE, WIDER, WIDEST



On a typical AGV, guidance precision is such that the tape will remain within range of our smallest sensors. Wider versions of the sensor are available for special applications.

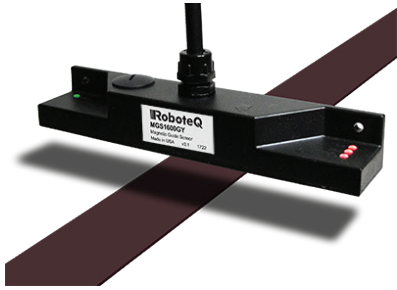
OR OPTICAL



For use in less hostile environment, Roboteq offers a sensor capable of detecting the position of a reflective tape. Tape is available from Roboteq in yellow, blue, green and red colors. The different colors can be used on the same track to create different paths, or as location markers. The sensor operates at distances from 30 to 100mm

ORDERABLE PRODUCTS

Magnetic & Optical Guide Sensors

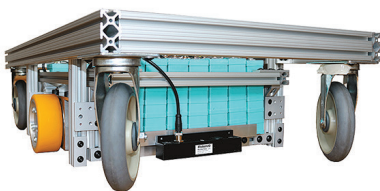


Model	Type	Width	Case	Gyroscope
MG51600GY	Magnetic	160mm	ABS	Yes
MG5W1600	Magnetic	160mm	Aluminum	Yes
MG5W3200	Magnetic	320mm	Aluminum	Yes
MG5W4800	Magnetic	480mm	Aluminum	Yes
OTS1600	Optical	160mm	Aluminum	No

Magnetic Tape



Model	Shape	Width	Length	Top Side	Use
MTAPE50NR	Flat	50mm	45.7m	North	Track
MTAPE25NR	Flat	25mm	45.7m	North	Track
MTAPESQUARE5x5	Square	5x5mm	15.2m	North	Track
MAGMARKER25	Flat	25mm	0.3m	South	Marker



Model	Motor Types	Sensors	IO Extender/IMU
AGV100-BLT1-2M-R	Brushless	2 x Magnetic	Yes
AGV100-BLT1-1M-R	Brushless	1 x Magnetic	Yes
AGV100-BLT1-1M	Brushless	1 x Magnetic	No

Visit www.roboteq.com for complete and up-to-date product listing

Beyond Product Support

The Roboteq team has been with us all along our AGV design efforts, helping with communication to our PLC and advising us on how best to construct our mechanical chassis in order to achieve accurate and steady track following. Thank you!

P.B. - Canada

Integration Really is a Snap

Roboteq's sensor, motor controller and software really do come together as easily as advertised. Following their Application Note's instructions and using their sample script was all we needed to make our robot move within hours. Impressive!

A.G. - Spain



Contact Us



USA - Scottsdale, AZ
Switzerland - Geneva



+1 480 664 6660
+41 22 575 2963



customerservice@roboteq.com
techsupport@roboteq.com