

SPOT®

by Boston Dynamics

A nimble, yet rugged robot that climbs stairs and traverses rough terrain with unprecedented ease.



INDUSTRIAL ROBOTIC INSPECTIONS

- ADVANCED MOBILITY
- PERCEPTIVE
- AUTONOMOUS
- CUSTOMIZABLE

Spot's base platform provides advanced mobility and perception to navigate stairs, gravel, and rough terrain. Collect 2D and 3D information with on-board sensors and add payloads to enhance Spot's sensing and data-processing capabilities.



SPOT®

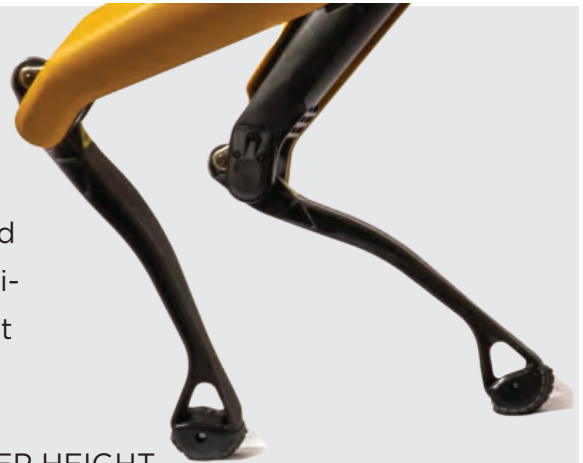
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MFE INSPECTION SOLUTIONS

ADVANCED MOBILITY



Spot's legs keep the robot stable while it quickly navigates stairs and difficult terrain. Register additional payload weight and watch as the system automatically adapts to keep the robot moving smoothly.



SPEED	SLOPE	STEP HEIGHT
1.6 m/s	+/- 30°	30 cm

PERCEPTIVE



Spot's built-in stereo cameras provide depth information to produce 3D point clouds, enabling the robot to map its surroundings and avoid obstacles. These cameras are primarily for the robot's own navigation but also provide the user with a live monochrome video feed that can be streamed through the control tablet or over the API. For high-definition, color images or increased range in 3D mapping, consider adding a Spot CAM or LIDAR to the system.

FOV	RANGE	STREAM
360°	4 m	Monochrome

AUTONOMOUS



Spot autonomously navigates over or around obstacles in its path using the real-time mapping conducted by the perception system. Spot also comes equipped with Autowalk, an easy-to-use tablet feature that allows users to record and replay autonomous missions.

RUNTIME	BATTERY
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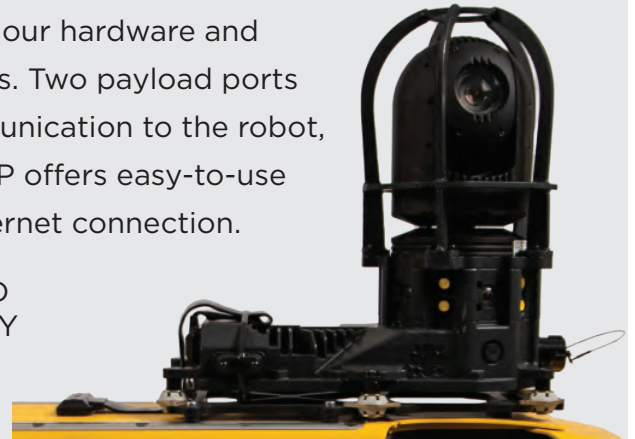
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CUSTOMIZABLE



Spot can be tailored for a variety of applications. Select a Boston Dynamics or third-party payload, or design your own using our hardware and software development kits. Two payload ports provide power and communication to the robot, and the optional Spot GXP offers easy-to-use regulated power and Ethernet connection.

PAYLOAD CONNECTION	PAYLOAD CAPACITY
DB25	14 kg



PAYLOAD FEATURES

SPOT CAM™

Captures spherical images and comes with an optional PTZ camera with 30x optical zoom for detailed inspections.

SPOT CORE™

Provides dedicated processing for applications requiring on-robot computation.



SPOT ARM™

Enables mobile manipulation for tasks like opening doors and grasping objects. (COMING EARLY 2021)

SPOT GXP™

Provides regulated power and an Ethernet port for easy payload integration.

PERCEPTION

FOV
360°

STREAM
Color

PTZ ZOOM
30x

For better situational awareness, consider adding a Spot CAM to the robot. Spot CAM includes a color feed and comes with an optional pan-tilt-zoom (PTZ) camera. Enhance the operator experience with Spot CAM's two-way audio and LEDs.

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COMPUTATION

PROCESSOR	STORAGE	MEMORY
i5 Core	512 GB SSD	16 GB

Spot's built-in computers are fully dedicated to robot locomotion and navigation and are not available for customer use. To process and analyze data from Spot or other sensors on-board, consider adding an external computer like a Spot CORE to the robot.

AUTONOMY

RANGE	ACCURACY
100 m	+/- 3 cm

Large, dynamically changing environments are particularly difficult for robots to navigate. To improve Spot's autonomy capabilities, both in depth and accuracy, consider adding a LIDAR to the robot. Use the LIDAR in conjunction with Spot CORE for better navigation of autonomous routes or in conjunction with both Spot CORE and Spot CAM for enhanced autonomy and telepresence.

INTEGRATION

POWER OUTPUT	POWER CONNECTION	ETHERNET CONNECTION
5V, 12V, & 24V	HD15	RJ45

The Spot GXP provides regulated power and an Ethernet breakout for easy attachment of custom and third-party payloads.

MANIPULATION

CARRYING CAPACITY	DEGREES OF FREEDOM
4 kg	6 + gripper

To interact with the environment, consider adding a Spot ARM. Use the ARM to open doors and cabinets and manipulate objects. (COMING EARLY 2021)

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