Spot

Transformative Mobility

Automate sensing and inspection, capture limitless data, and explore without boundaries.

Operate with Ease
Spot’s vision system makes it easy to navigate around objects and over rough terrain. Control the robot from afar using an intuitive tablet application and built-in stereo cameras. Spot can also be teleoperated via Orbit™ desktop software.

Automate Data Collection
Program repeatable autonomous missions to gather consistent data. Flexible autonomy allows Spot to adjust to changes on its programmed path as desired. Missions can be launched from the Spot Dock for remote operations.

Customize for Your Needs
Spot can carry up to 14 kg (30 lbs) of sensing equipment. Our diverse payload ecosystem is ready for a variety of applications, from thermal and acoustic inspections to laser scanning and site progress monitoring.

Learn with Training and Support
We make it easy to get started with Spot. Our Support Center features a comprehensive collection of knowledge articles and discussion groups, product training options are available, and in addition to our one-year limited warranty, we offer premium service and support through a Spot Care subscription.

www.bostondynamics.com/products/spot

Features
- 14 kg (30 lbs) Payload Limit
- 90-Minute Run time
- Object Avoidance
- Stair & Complex Terrain Navigation
- Manual & Autonomous Operation
- IP54 Rated
- Flexible API and Python SDK
- Premium Service and Support

Industries
- Manufacturing
  - Set Spot up to do autonomous inspection rounds or use the robot to create digital twins of a plant in advance of rework.
- Construction
  - Inspect progress on construction sites, create digital twins, and compare as-built conditions to Building Information Modeling (BIM) autonomously with Spot.
- Power & Utilities
  - Create autonomous routes or drive the robot to remotely perform inspections in electrified or radiation dense areas.
- Mining
  - Create routine tunnel inspection routes and attach additional payloads to take measurements and ensure safe working conditions.
- Oil and Gas
  - Create autonomous routes or drive the robot to remotely inspect facilities and improve site awareness of plant operations.
- Public Safety
  - Drive Spot remotely to get eyes on dangerous situations and inspect hazardous packages from afar.

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Create routine tunnel inspection routes and attach additional payloads to take measurements and ensure safe working conditions.

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Public Safety
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Specifications

**Base Robot**

**DIMENSIONS**
- **Length** = 1100 mm (43.3 in)
- **Width** = 500 mm (19.7 in)
- **Height (Sitting)** = 191 mm (7.5 in)
- **Default Height (Walking)** = 610 mm (24.0 in)
- **Max Height (Walking)** = 700 mm (27.6 in)
- **Min Height (Walking)** = 520 mm (20.5 in)
- **Net Mass/Weight (Spot with battery)** = 32.7 kg (72.1 lbs)

**LOCOMOTION**
- **Max Speed** = 1.6 m/s
- **Max Slope** = ±30°
- **Max Step Height** = 300 mm (11.8 in)

**TERRAIN SENSING**
- **Horizontal Field of View** = 360°
- **Range** = 4 m (13 ft)
- **Lighting** = > 2 Lux
- **Collision avoidance**
  - maintains set distance from stationary obstacles

**Battery**
- **Battery Capacity** = 564 Wh
- **Average Runtime** = 90 mins
- **Standby Time** = 180 mins
- **Recharge Time** = 60 mins

**Charger**
- **Input Voltage** = 100-240VAC
  - 50/60Hz 8A Max
- **Output** = 35-58.2 VDC, 12A Max
- **Length** = 380 mm (15.0 in)
- **Width** = 315 mm (12.4 in)
- **Height** = 178 mm (7.0 in)
- **Mass/Weight** = 7.5 kg (16.5 lbs)
- **Operating Temp.** = 0°C to 45°C

**Tablet**
- **Height** = 127 mm (5.0 in)
- **Width** = 214 mm (8.4 in)
- **Depth** = 10 mm (0.4 in)
- **Weight** = 426 g (0.9 lbs)
- **Touch Screen Size** = 8” diagonal
- **Resolution** = 1920x1200
- **Ingress Protection** = IP65
- **Joystick add-on available**

**CONNECTIVITY**
- **WiFi** = 2.4GHz / 5GHz b/g/n
- **Ethernet**

**AUDIO & VISUAL SIGNALS**
- Pre-configured behaviors for manual and autonomous operations
- **LED Brightness** = Adjustable up to 1010 Lux
- **Max Projection Distance** = 1.8 m in front of robot
- **Buzzer Volume** = Adjustable up to 110 dB at 1 m distance from robot

**ENVIRONMENT**
- **Ingress Protection** = IP54
- **Operating Temp.** = -20°C to 55°C

**Ambient Temp.**
- **80% charge**
  - 25°C: 50 min
  - 35°C: 2.5 hrs
- **100% charge**
  - 25°C: 2 hrs
  - 35°C: 3.5 hrs

**Safety and Compliance, United States**
- Designed according to ISO 12100 for risk assessment and reduction methodology and IEC 60204-1 for electrical safety. See Information for Use for further details on intended uses.
- **Emergency Stop**
  - meets ISO 13850
- **EMC**
  - FCC Part 15B
  - Radio equipment: Incorporates a FCC Part 68 Certified radio system
  - Laser product = Class 1 eye-safe per IEC 60825-1:2007 & 2014

**POWER CASE**
- Includes two batteries and charger
- **Length** = 810 mm (32 in)
- **Width** = 530 mm (21 in)
- **Height** = 300 mm (12 in)
- **Net Mass/Weight** = 28 kg (61 lbs)

**POWER**
- **Input** = 90-277 VAC
- **Output** = 58V at 12A
- **Charge Time** = 2-3.5 hours**

**Payload Mounting**
- **Max Weight** = 14 kg (30.9 lbs)
- **Mounting Area** = 850 mm (L) x 240 mm (W) x 270 mm (H)
- **Mounting Interface** = M5 T-slot rails
- **Connector** = DB25 (2 ports)

**Environmental**
- **Ingress Protection** = IP20
- **Operating Temp.** = -20°C to 55°C

**General**
- **Charger**
  - **Length** = 324 mm (12.8 in)
  - **Width** = 168 mm (6.6 in)
  - **Height** = 93 mm (3.7 in)
  - **Mass/Weight** = 5.2 kg (11.5 lbs)

**Battery Capacity**
- **Average Runtime** = 90 mins
- **Recharge Time** = 60 mins

**Standby Time**
- **Ambient Temp.**
  - 25°C: 180 mins
  - 35°C: 280 mins

**Ambient Temp.**
- **80% charge**
  - 25°C: 50 min
  - 35°C: 2 hrs
- **100% charge**
  - 25°C: 2 hrs
  - 35°C: 3.5 hrs

**Contact**
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