

# SandFlea

## Jumping Robot

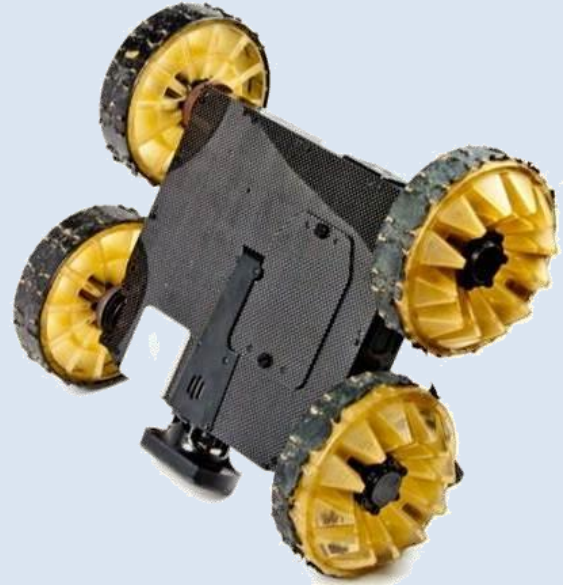
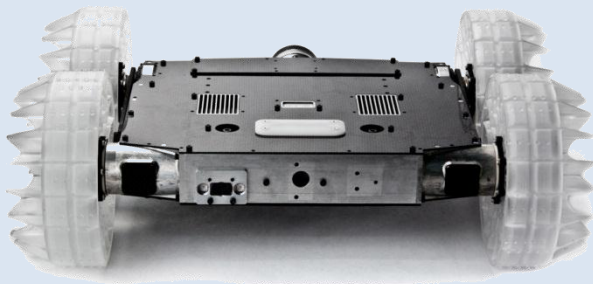
Boston Dynamics



SandFlea is a small robot with remarkable mobility. The 11 lb robot drives like a traditional wheeled vehicle on mild terrain, but jumps up to 8m high over difficult terrain. It can jump 25 times using the piston actuator and onboard fuel supply. Jumps of 1-8 m heights are user selectable. Specially designed wheels cushion the shock of landing. Flight and landing attitude of the robot are automatically controlled by an onboard stability system. A video of SandFlea in action is available here:

<http://www.youtube.com/watch?v=6b4ZZQkcNEo>

- **Controllable hop height, 1-8 m**
- **Controllable launch angle**
- **Precision hops through windows or doors, on to tables, up staircases, on to or off of roofs or balconies**
- **Piston actuator**
- **Laser-based ranging to guide launch**
- **Operator control unit (OCU) with live video feed for remote operation**
- **Robot and OCU both fit into a small backpack**



### Specifications

#### Size:

Weight: 11 lb

Dimensions: 13"L x 18"W x 6"H

#### Power

Battery: Rechargeable Li-polymer

Jump Actuator: disposable fuel cartridge

Endurance: 2 hours, 25 hops

#### Mobility:

Speed: 3.4 mph

Jump Height: 1-8 m

Invertible

#### Environmental:

Temperature: -15C to 45C ambient continuous operation

Water resistant

Exposure: Tolerant of humidity, salt, oil, sand extremes

#### Cameras:

Driving Resolution: 320x240 pixels

Still Image Resolution: 1280x960 pixels

Illuminators: Adjustable 6W Visible, 6W Infrared

Boston Dynamics

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