



# GECKO ROBOT

I&R - ITIS PININFARINA

# What is a gecko?

Geckos are lizards found in warm climates throughout the world. They range from 1.6 cm to 60 cm. Many species are well known for their specialized toe pads that enable them to climb smooth and vertical surfaces, and even cross indoor ceilings with ease. These species become part of the indoor menagerie and are often welcome guests, as they feed on insects, including mosquitoes. Unlike most lizards, geckos are usually nocturnal and are great climbers.



# RiSE: The Amazing Climbing Robot

(produced by Boston Dynamics)

## What is RiSE?

RiSE is a robot that climbs vertical terrain such as walls, trees and fences. RiSE uses feet with micro-claws to climb on textured surfaces. RiSE changes posture to conform to the curvature of the climbing surface and its tail helps RiSE balance on steep ascents. RiSE is 0.25 m long, weighs 2 kg, and travels 0.3 m/s.







## How does RiSE work?

Each of RiSE's six legs is powered by a pair of electric motors. An onboard computer controls leg motion, manages communications, and services a variety of sensors, including joint position sensors, leg strain sensors and foot contact sensors.

RiSE is computationally and power autonomous, running real-time control software on a 266 MHz processor, with extended run-times allowed by its on-board batteries.



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