Boston Dynamics

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- 2,000,000 lines of code in total
- 500,000 lines of code to take a step

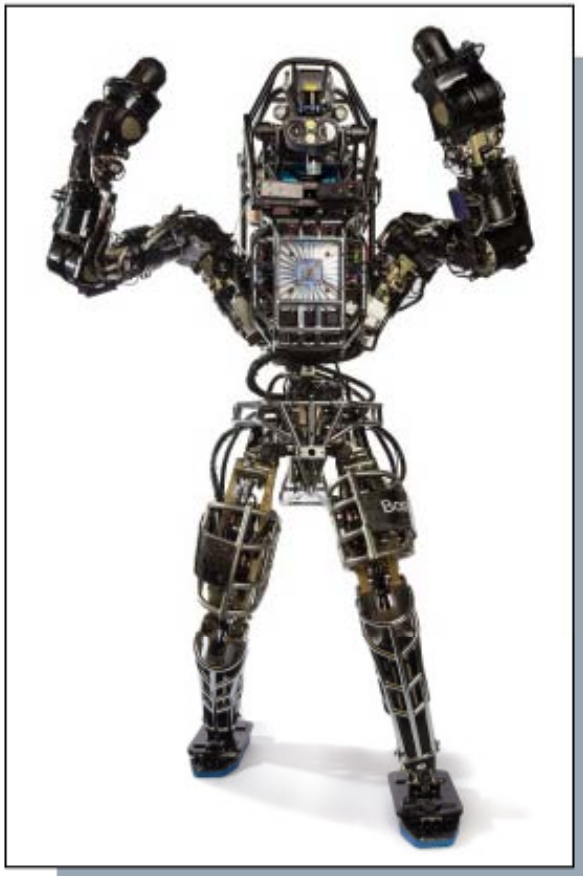
Atlas - The Agile Anthropomorphic Robot

Atlas is a high mobility, humanoid robot designed to negotiate outdoor, rough terrain. Atlas can walk bipedally leaving the upper limbs free to lift, carry, and manipulate the environment. In extremely challenging terrain, Atlas is strong and coordinated enough to climb using hands and feet, to pick its way through congested spaces.

Articulated, sensate hands will enable Atlas to use tools designed for human use. Atlas includes 28 hydraulically-actuated degrees of freedom, two hands, arms, legs, feet and a torso.

An articulated sensor head includes stereo cameras and a laser range finder. Atlas is powered from an off-board, electric power supply via a flexible tether.

Several copies of the Atlas robot are being provided as Government Furnished Equipment for the DARPA Robotics Challenge program with delivery scheduled in the summer of 2013.



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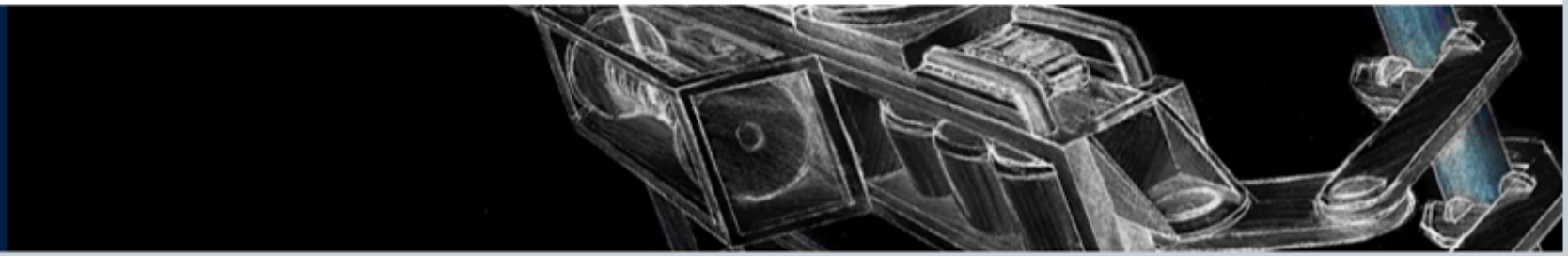

Jobs (Mar. 2016)

Boston Dynamics is a leading developer of advanced dynamic robots, including BigDog, PETMAN, LS3, ATLAS, Cheetah, and others. We love to create innovative machines that combine advanced control systems, sophisticated mechanical designs, onboard control and sensing, and extraordinary behavior. We have a close-knit hard-working team of 80 engineers, scientists and technicians devoted to building the most advanced dynamic robots in the world. If you have excellent technical skills, like to get your hands dirty and want to join our team of robotics rock stars, send your resume to jobs@BostonDynamics.com.
Boston Dynamics is not currently offering internships. Please contact us when you are seeking full-time employment.

Electrical Engineer

Title: Electrical Engineer
Location of Job: Waltham, Massachusetts
For this position, you will be responsible for design, construction and troubleshooting of compact and reliable electrical systems in robotics. This includes electrical sub-system design, integration, pcb layout, and frequent hands-on work in lab building and debugging electrical systems. Tasks will range from working on small test systems to fully integrated robots in the field. A successful candidate must also demonstrate an ability to work in large teams and communicate effectively with other engineers.

Required Skills:

- BSEE with 1-4 years of work experience
- Excellent circuit analysis fundamentals
- Electronics debug and failure analysis
- Demonstrated experience using schematic capture and PCB layout software
- Embedded sensing and electronics
- Firmware development in C
- Working understanding of command-line Linux or similar operating system
- Ability to use lab equipment such as oscilloscopes, DMM's, power supplies
- Familiarity with a wide variety of electrical components and devices
- Ability to solder SMT PCB components with satisfactory skill

lots of feedback needed

i.e., for real-time processing and control (presumably)

Desired skills:

- Demonstrated high level of motivation and interest in electronics and/or robotics
- Experience designing power electronics from 100W to 10kW
- Experience using or designing motors and/or motor drives
- Experience designing wireless devices, antennas, or other RF applications
- Working knowledge of Solidworks or other CAD experience
- Experience with Python, LabView, or MATLAB
- Experience in Verilog or VHDL

even power electronic skills!

lots of mechanical aspects, too

i.e., for FPGA design