

MIT CSAIL Team Falls Just Short of Winning \$2M Robotics Challenge [Video]

(<http://bostinno.streetwise.co/author/zach-halperin-2/>) - Editorial Intern
06/08/15 @12:53pm in Education
(<http://bostinno.streetwise.co/community/edu/>)

605 

1 1
(<http://twitter.com/intent/tweet?>



(https://wp.streetwise.co/2015/06/08/mit-csail-team-falls-just-short-of-winning-2m-robotics-challenge/mit_darpa_robot/)

A team out of MIT's Computer Science and Artificial Intelligence Lab (CSAIL) spent more than three years preparing for this past weekend, when it took part in the DARPA Robotics Challenge in Pomona, Calif.

During the competition, MIT's robot, Atlas, finished inches away from winning a \$2 million prize. The 6-foot-2-inch, 400 pound robot needed to perform eight different tasks—such as opening a door, turning on a power tool and drilling a hole in a wall, climbing stairs, and even driving a car, all within an hour. (See the

video below.)

MIT's team, comprised of a professor, a postdoc and fewer than a dozen graduate students, faced adversity in the competition when Atlas broke its right arm getting out of the car after the driving task. But the team was able to reprogram Atlas to do all of the remaining tasks left-handed.

Each team was given two chances to complete the tasks as quickly as possible. On its second run, Atlas ran through the first three tasks faster than any other robot, but on the drill task, the drill slipped out from the wall, ending MIT's chances of first place.

"This is without a doubt the most ambitious project that any of us have ever undertaken," said Professor Russ Tedrake, the CSAIL investigator who led the team at the Robotics Challenge. "From perception to motion-planning to manipulation, the breadth and depth of challenges have forced us to think creatively, program nimbly - and sleep sporadically."

Contrary to some approaches which focus on moving a robot incrementally to its goal, MIT developers solved for motion in advance with a method called "whole-body motion-planning." The MIT team developed algorithms for every one of the robot's micro-actions.

"It's no longer a question of whether we'll ever live in a world filled with useful robots," said Tedrake. "The real question is just how soon that time will come."

The DARPA Robotics Challenge, which is sponsored by the Pentagon, is aimed at developing robots to perform tasks in disaster-relief situations.



Photo courtesy of DARPA. (<http://www.theroboticschallenge.org/gallery-all>)

BostInno

IN THE KNOW

Your Boston life. Styled.

(/newsletter/in-the-know/?utm_source=cta&utm_medium=articleBottom&utm_campaign=In_The_Know)

Don't just live in Boston, experience it.

Email

Submit

Read More:

DARPA (<http://bostinno.streetwise.co/topic/darpa/>), MIT (<http://bostinno.streetwise.co/topic/mit/>), Robotics (<http://bostinno.streetwise.co/topic/robotics/>)

From Our Partners



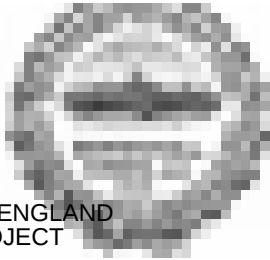
17 Years of Improvisation Later (http://adclick.g.doubleclick.net/aclk?sa=L&ai=Be7kQROI_VZXXMtXGb7eApNgCov7hyAYAAAAQASDquP8EOABYypHFyNcBYLv-yYPcCrIBFmJvc3Rpbm5vLnN0cmVldHdpc2UuY2-

(http://adclick.g.doubleclick.net/aclk?sa=L&ai=BwR8WROI_VZbXMtXGb7eApNgCqv3hyAYAAAAQASDquP8EOABY0sSmmOUBYLv-yYPcCrIBFmJvc3Rpbm5vLnN0cmVldHdpc2UuY2-6AQlnZnBfaW...2XIAQnaAWpodHRwOi8vYm9zdGlubm8uc3RyZWV0d2lzZS5jby8yMDE1LzA2LzA4L21pdC1_ADqAMB0A...FAZAGAAAGINgHAA&num=0&cid=5Gh9M6sUN3LeRYYTQT6onKZ3&sig=AOD64_3AHBV/pub-64181...30&adurl=http://bostinno.streetwise.co/channels/iab-releases-global-mobile-advertising-revenue-coverage

IAB Releases Global Mobile Advertising... (http://adclick.g.doubleclick.net/aclk?sa=L&ai=BwR8WROI_VZbXMtXGb7eApNgCqv3hyAYAAAAQASDquP8EOABY0sSmmOUBYLv-yYPcCrIBFmJvc3Rpbm5vLnN0cmVldHdpc2UuY2-

HARVARD COLLEGE
VENTURE PARTNERS

Harvard Ventures: 2014 in Review (http://adclick.g.doubleclick.net/aclick?sa=L&ai=Bkp2TROl_VZfXMTXGb7eApNgCyqCBswQAAAAQASDquP8EOABYws7UqY4BYLvyYPcCrIBFmJvc3Rpbm5vLnN0cmVldHdpc2UuY2-)



THE NEW ENGLAND
TECH PROJECT

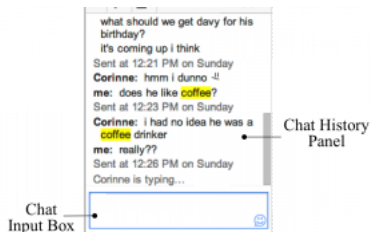


Announcing a City Council Hearing just for Startups (http://adclick.g.doubleclick.net/aclick?sa=L&ai=BZXUcROI_VZjXMTXGb7eApNgCis6AswQAAAAQASDquP8EOABYgrLRqY4BYLvyYPcCrIBFmJvc3Rpbm5vLnN0cmVldHdpc2UuY2-)

NEW ENGLAND
VENTURE CAPITAL

Hungry? Try Unpitch. (http://adclick.g.doubleclick.net/aclick?sa=L&ai=BzMFROI_VZvXMTXGb7eApNgC-se8-AUAAAQASDquP8EOABY6tCI98EBYLv-yYPcCrIBFmJvc3Rpbm5vLnN0cmVldHdpc2UuY2-6AQInZnBfaW1hZ2XIAQnaAWpodHRwOi8vYm9zdGlubm8uc3RyZWV0d2lzZS5jby8yMDE1LzA2LzA4L21pdC1jc2FpbC10ZWFTLW77hbGxvZl1Wp1c3Qtc2hvcnQtb2Ytd2l1uhmlu7v0vhs1v21vdGlicv1iaGEshGVu7211hwAICAAIA6dlil-zY2QDI13N7Avl13Rv7WV0d21)

Related Articles



(<http://bostinno.streetwise.co/2015/05/13/lifehack-learn-a-language-with-mit-csail-gchat-app/>)
A New MIT-Built App Lets You Learn a Foreign Language While Gchatting
(<http://bostinno.streetwise.co/2015/05/13/lifehack-learn-a-language-with-mit-csail-gchat-app/>)



(<http://bostinno.streetwise.co/2015/03/04/mit-cybersecurity-program-3-new-mit-cyber-initiatives-debut/>)
MIT Is Upping Its Cybersecurity Game with 3 New



(<http://bostinno.streetwise.co/2015/06/11/here-are-the-most-memorable-game-of-thrones-characters-according-to-mit-scientists/>)
Here Are the Most Memorable Game of Thrones Characters...
(<http://bostinno.streetwise.co/2015/06/11/here-are-the-most-memorable-game-of-thrones-characters->



(<http://bostinno.streetwise.co/2015/04/15/mit-media-lab-launches-bitcoin-initiative-to-research-cryptocurrencies/>)
MIT Media Lab Is Launching a New Bitcoin Research

Programs
(<http://bostinno.streetwise.co/2015/03/04/mit-cybersecurity-program-3-new-mit-cyber-initiatives-debut/>)

Initiative (<http://bostinno.streetwise.co/2015/04/15/mit-media-lab-launches-bitcoin-initiative-to-research-cryptocurrencies/>)

Streetwise Comments

Reply. Type @ and a user's name to tag them in a comment...

Notify me of follow-up comments via email



Facebook



Add a comment...

Also post on Facebook

Posting as **Maurice Fallon** ▼

Comment

Facebook social plugin

Tweets



Boston Tech News

@bostontechnolgy

Follow

MIT CSAIL Team Falls Just Short of Winning \$2M Robotics Challenge [Video]: A team out of MIT's Compute... bit.ly/1G84Eki #Boston

10:25 PM - 8 Jun 2015

Most Popular

Cambridge's ThinkingPhones Is on a Hiring Tear (<http://bostinno.streetwise.co/2015/06/15/business-communications-thinkingphones-hiring-tech-jobs/>)

🔥 5.3K Rebecca Strong (<http://bostinno.streetwise.co/author/rebecca-strong-1/>)

South End Church Approved by BRA for 33 New Condos (<http://bostinno.streetwise.co/2015/06/15/136-shawmut-ave-church-condos-approved-by-boston-redevelopment-authority/>)

🔥 4.4K Nick DeLuca (<http://bostinno.streetwise.co/author/nick-deluca/>)

Keep Up With the Crowd: Who to Follow at #BOSSOI (http://adclick.g.doubleclick.net/aclick?sa=L&ai=Bf3mDROI_VZzXMtXGb7eApNgCuuzewwYAAAAQASDquP8EOABY8suu9rABYLv-)

Mass. Is One of the Largest States by Economic Success (<http://bostinno.streetwise.co/2015/06/14/map-of-massachusetts-size-based-on-economic-success/>)

🔥 4.1K Nick DeLuca (<http://bostinno.streetwise.co/author/nick-deluca/>)

The New York Times Says the Wells Report Is 'Unreliable' (<http://bostinno.streetwise.co/2015/06/13/new-york-times-wells-report-study-finds-ted-wells-conclusions-unreliable/>)

4.0K Alex Reimer (<http://bostinno.streetwise.co/author/alex-reimer/>)


One Week Left for Early Bird Tickets to BostInno's State of Innovation [Event] (<http://adclick.g.doubleclick.net/aclk?sa=L&ai=Buj->

Ad from Streetwise Media (<http://adclick.g.doubleclick.net/aclk?sa=L&ai=Bui->

Here's What the Patriots' Super Bowl Ring Looks Like (<http://bostinno.streetwise.co/2015/06/14/patriots-super-bowl-xlix-ring-photo-on-julian-edelmans-instagram-shows-tom-brady-wearing-four-for-first-time/>)

3.8K Hayden Bird (<http://bostinno.streetwise.co/author/hayden-bird/>)

Careers On BostInno (/careers/)

 (<http://bostinno.streetwise.co/careers/j/short-term-member-communications-coordinator/>) Short-Term
RueLaLa
(/partner/ruelala/)




(<http://bostinno.streetwise.co/careers/j/assistant-controller-large-co/>)

Manager of Technical Accounting
Hollister Staffing
(/partner/hollister-staffing/)



(<http://bostinno.streetwise.co/careers/j/traveler-support-specialist/>)

Traveler Support Specialist (<http://bostinno.streetwise.co/>)
EF (/partner/ef/)

 (<http://bostinno.streetwise.co/careers/j/assistant-boutique-producer/>) Assistant Boutique Producer
RueLaLa (/partner/ruelala/)



(<http://bostinno.streetwise.co/careers/j/accounting-analyst-financial-analyst/>)

Accountant - 4 month contract
Hollister Staffing
(/partner/hollister-

staffing/)

Sites

- ▶ BostInno (<http://bostinno.streetwise.co>)
- ▶ DC Inno (<http://dcinno.streetwise.co>)
- ▶ Chicago Inno (<http://chicagoinno.streetwise.co>)

Communities

- ▶ Tech (<http://bostinno.streetwise.co/community/tech/>)
- ▶ Education (<http://bostinno.streetwise.co/community/edu/>)
- ▶ City News (<http://bostinno.streetwise.co/community/boston-city-news/>)
- ▶ Sports (<http://bostinno.streetwise.co/community/sports/>)
- ▶ Lifestyle (<http://bostinno.streetwise.co/community/lifestyle/>)
- ▶ Health & Fitness (<http://bostinno.streetwise.co/community/health-fitness/>)

Partners

- ▶ Streetwise Studio (<http://studio.streetwise.co>)
- ▶ About Partners (<http://studio.streetwise.co/brand-publishing/>)
- ▶ Offerings (<http://studio.streetwise.co>)

Careers

- ▶ Career Directory (/careers/)

▶ Internships (/careers/?sort_ids%5BjobType%5D%5B0%5D=internship)

Events

▶ Events (/events/)

Series

▶ Series Directory (/series/)

More Info

▶ About Us (<http://streetwise.co/>)

▶ Reader (/reader/)

▶ Sitemap (<http://bostinno.streetwise.co/bostinnos-boston-tech-sitemap/>)



(<http://facebook.com/bostinno>)



(<http://twitter.com/bostinno>)



(<http://www.linkedin.com/company/703677>)



(/feed/)



Work Here (<http://bostinno.streetwise.co/partner/streetwise-media/careers/>) | The Team
(<http://bostinno.streetwise.co/partner/streetwise-media/team/>) | Advertise (<http://studio.streetwise.co/>) |
Contact Us (<http://streetwise.co/#contact>)

(<http://streetwise.co/>)



(<https://www.facebook.com/pages/Streetwise-Media/193343010683187?fref=ts>)



(<https://twitter.com/StwiseMedia>)



(<http://www.linkedin.com/company/streetwise-media>)

2015 Copyright Streetwise Media (<http://streetwise.co/>) | Terms of Use (<http://acbj.com/privacy/>)