



Eastern North Carolina R&A Chapter Member Initiatives

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2014-2015 Chair, Senior Member

Background of ENCS R&A

- Active chapter since 2001
- Membership attendance was way down in 2012
- Reached out to the local robotics club and merged to form a stronger group for both
- They brain stormed ways to re-engage members:
 - ENCS humanoid robotics project
 - Roboresearch seminar
 - Community outreach

Humanoid Robot Project

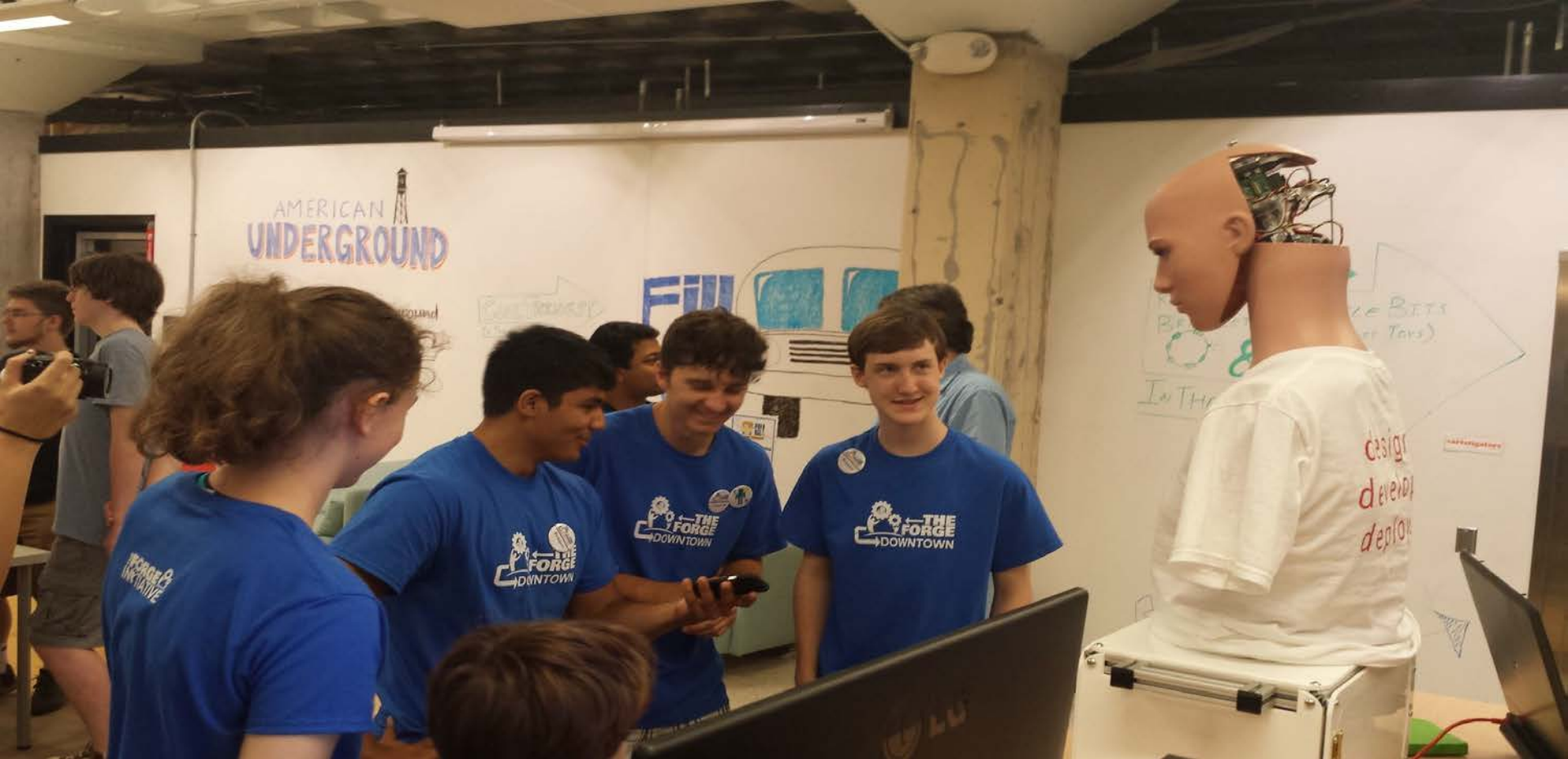
- Ultimate long term goal is to build a robot that is *indistinguishable from a human*
- Current capability includes natural language communication to carry on a simple conversation, can recognize and track your face, and can learn and recall your name
- A long way to go meet our ultimate goal, but...

Humanoid Robot Has Already...

- Helped to enhance student and public knowledge of robotics, engineering, and STEM career opportunities
- Participated in several community and IEEE outreach programs in the area
- Provided a common project to bring enthusiasm and excitement to our members

Humanoid Robot Current Projects

- First prototype dismantled, studied, documented, improved and cloned by high school robotics team and being used in their outreach activities
- Second version currently being designed to include even more functions and capabilities
- Already thinking ahead to more improvements



Our first student outreach with 'Ken'



Students learning how 'Ken' works



Region 3 Southeastcon student conference



Local ARRL Ham radio club requested 'Ken'

Roboresearch Seminar

- IEEE seminar to promote interaction between NC business, STEM, universities, and government
- Presentations from research, real world applications, universities, and government in our state
- Capped attendance at 100 first year (2015) and had over 95 despite bad weather
- Second year happening today and tomorrow



One of the 2015 Roboresearch presentations

Community Involvement

- Mentor LEGO robotics camps
- Help organize events at maker meets
- Provide robotics displays and discussions at local library's special events
- Provide assistance at 2016 and 2017 Region 3 Southeastcon student conference competition
- Assisting with IEEE student chapter recruitment

ENCS Rebirth

- From 2 meetings in 2012 to over 25 in 2015
- Attendance varies from mid-20s to over 100
- Meeting topics vary to reach out to a wide range of attendees:
 - Academic / Research oriented
 - Educational
 - Hobby robotics
 - STEM outreach

Summary, or “What we learned”

- We must first engage our members to give them a reason to want to get involved
- That will lead to both a better chapter and a positive influence on the members and the community

Thank you

- **ENCS R&A website**

sites.ieee.org/encs/ra

- **Humanoid robot**

sites.ieee.org/encs-humanoid

- **Roboresearch conference**

sites.ieee.org/ncc-roboresearch

