
SAE
INTERNATIONAL
CYBERAUTO
CHALLENGE
JULY 22–27, 2018
DETROIT, MICHIGAN, USA
SAE.ORG/EVENTS/CYBERAUTO

What is the CyberAuto Challenge?

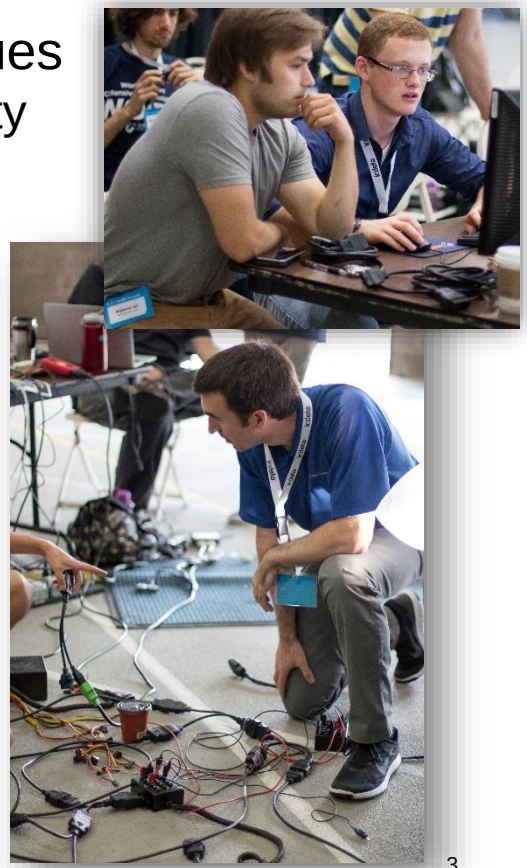
The Challenge is a week-long (5 day) practicum based workshop

- series of classroom lessons and discussions alternating with hands-on work using
  - real cars
  - real equipment
  - real communications protocols
- team with industry experts including automotive engineers, government engineers, and ethical “white hat” hackers.
- plan and perform analysis and provide input on current model full-feature cars

Forging the next generation auto cyber engineer

Value Proposition

- Awareness of relevant automotive cybersecurity issues
  - Increased vehicle electrical/electronic system complexity
  - Increased number of interfaces – wireless and wired
- Cooperative relationship building
  - Collaboration among students, industry, gov't, academia fostering mentor – protégé relationships
- Workforce development
  - Exposing high school and college students to high tech careers in auto industry
  - Improving current auto engineer cybersecurity skills and knowledge
  - Intern / employee recruitment opportunity



Goal

Twin, co-equal goals:

1.) Develop a talent pipeline for government/industry by training and exciting the next generation workforce about careers in automotive cybersecurity

2.) Foster and support a community of interest regarding automotive cybersecurity to help facilitate both understanding and communication among industry, government, and the research community

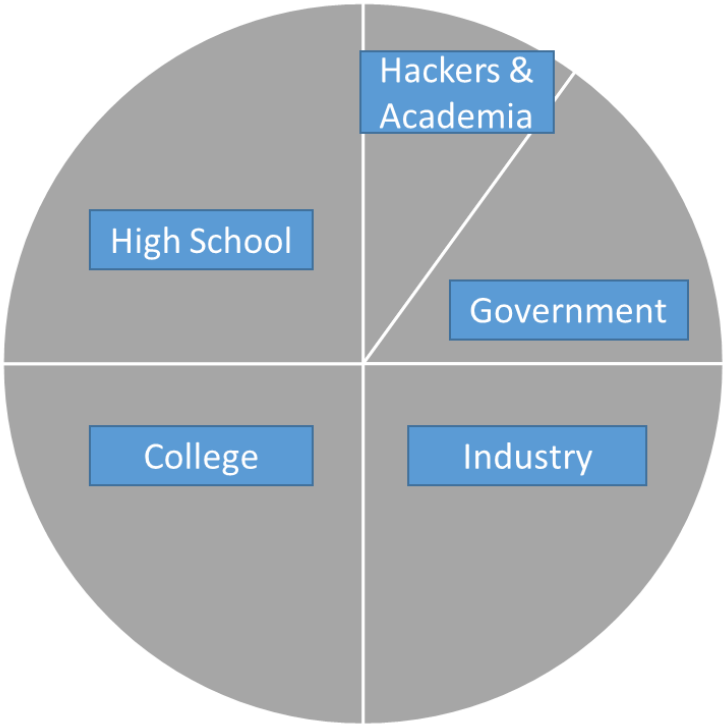
Benefits for students

- Develop foundational understanding of security approaches
- Learn about unique automotive cyber issues
- Increase technical skills; particularly in CAN protocols and programming
- Put theory to practical use
- Develop initial project management skills; experiencing time constraints and limited resources
- Team with working engineers and researchers in a professional environment
- Develop relationships with professionals and other students….now they are a part of a “community of interest” – the auto cyber community!
- Participate in a unique event aimed at developing a new discipline for the automotive industry

Benefits for professional team members

- Develop and deepen peer to peer relationships with automotive engineers (OEM and supplier), researchers and government representatives
- Raise awareness among students of the highly technical nature of automotive jobs; igniting interest in automotive careers
- Actively develop the future talent pipeline in cybersecurity, ensuring a well-trained and educated workforce for the automotive industry
- Develop mentor-protégé relationships with students
- Directly assess student capabilities for potential job recruitment
- Developed a germ of cyber auto “community of interest” for the future

The Cohort

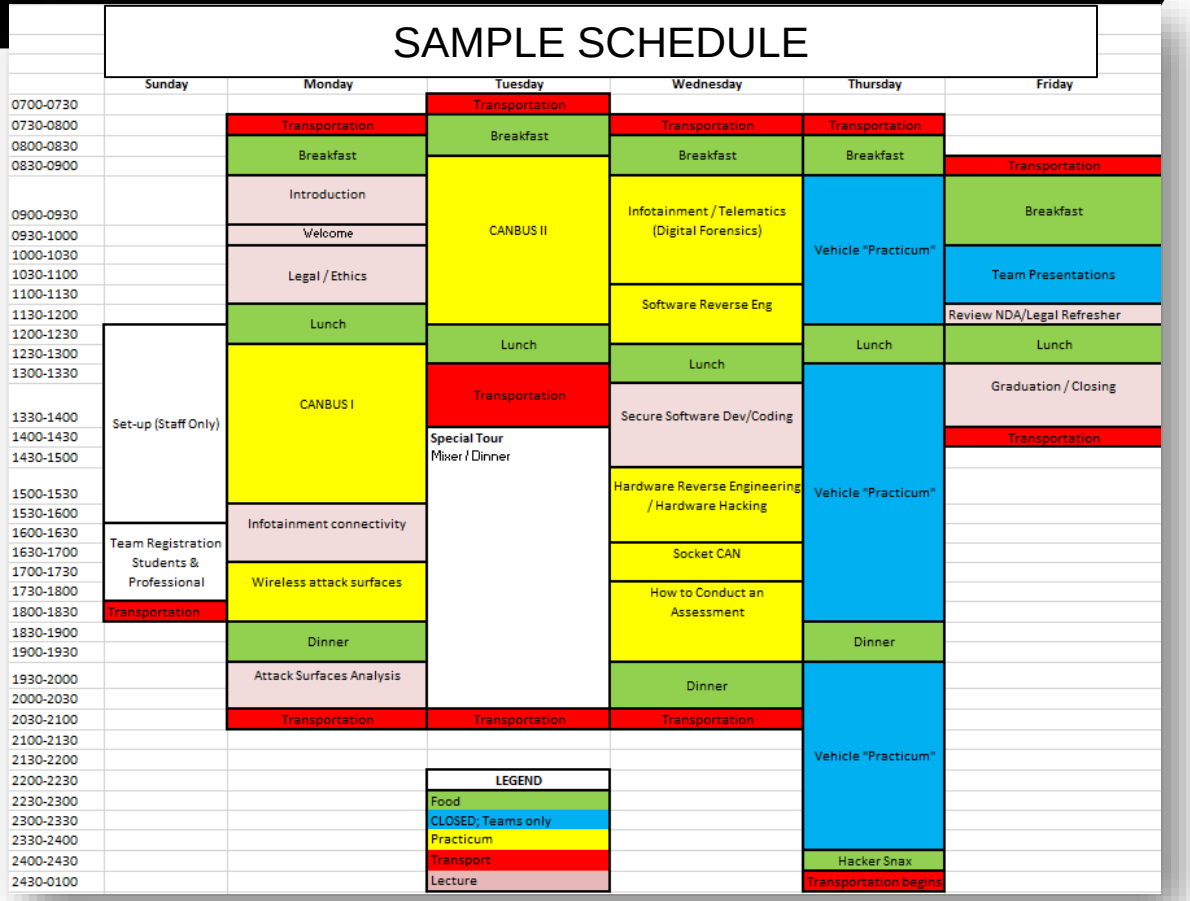

Hackers & Academia
High School
Government
College
Industry

Challenge week schedule

Immersive in Nature

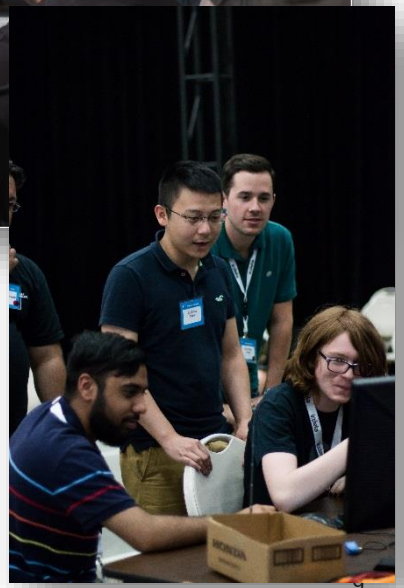
- Maximize group interactions
- Focus on collaborative teaching & engagement
- Provide basic instruction with continuous facilitation

– Sunday arrival
– Mon thru Wed series of lessons alternating with hands-on work
– Tuesday off-site tour / networking event
– Thurs 24 hr. Challenge “hackathon”
– Friday graduation



What are we Seeking

- Highly qualified and motivated students
  - High school juniors and seniors
  - College
- OEM vehicle teams
  - Vehicle to use as a “learning platform”
  - OEM engineers; 2-3 as team members
- Supplier participation
  - 1-2 vehicle team members
- Technical subject matter experts to provide training or lectures
- Funding support; various sponsorship levels available



Here's how to apply:

Step 1: Students should go to cyberautochallenge.us and create an account.

Step 2: Students will need to send link to two individuals (teacher, school administrator, coach, pastor, scout leader, etc.) for a reference. (Now and March 26, 2018)

Step 3: Students Participate and complete the preparatory educational screening sessions online (during April - June).

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About us

About SAE

SAE International is a global association committed to being the ultimate knowledge source for the engineering profession. By uniting over 145,000 engineers and technical experts, we drive knowledge and expertise across a broad spectrum of industries.

We act on two priorities: encouraging a lifetime of learning for mobility engineering professionals and setting the standards for industry engineering. We strive for a better world through the work of our philanthropic SAE Foundation, including programs like A World in Motion ® and the Collegiate Design Series™.

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