



Cyber “X” Challenges

Talent Development
Recruitment
Community

ESCAR USA

May 22-23, 2025

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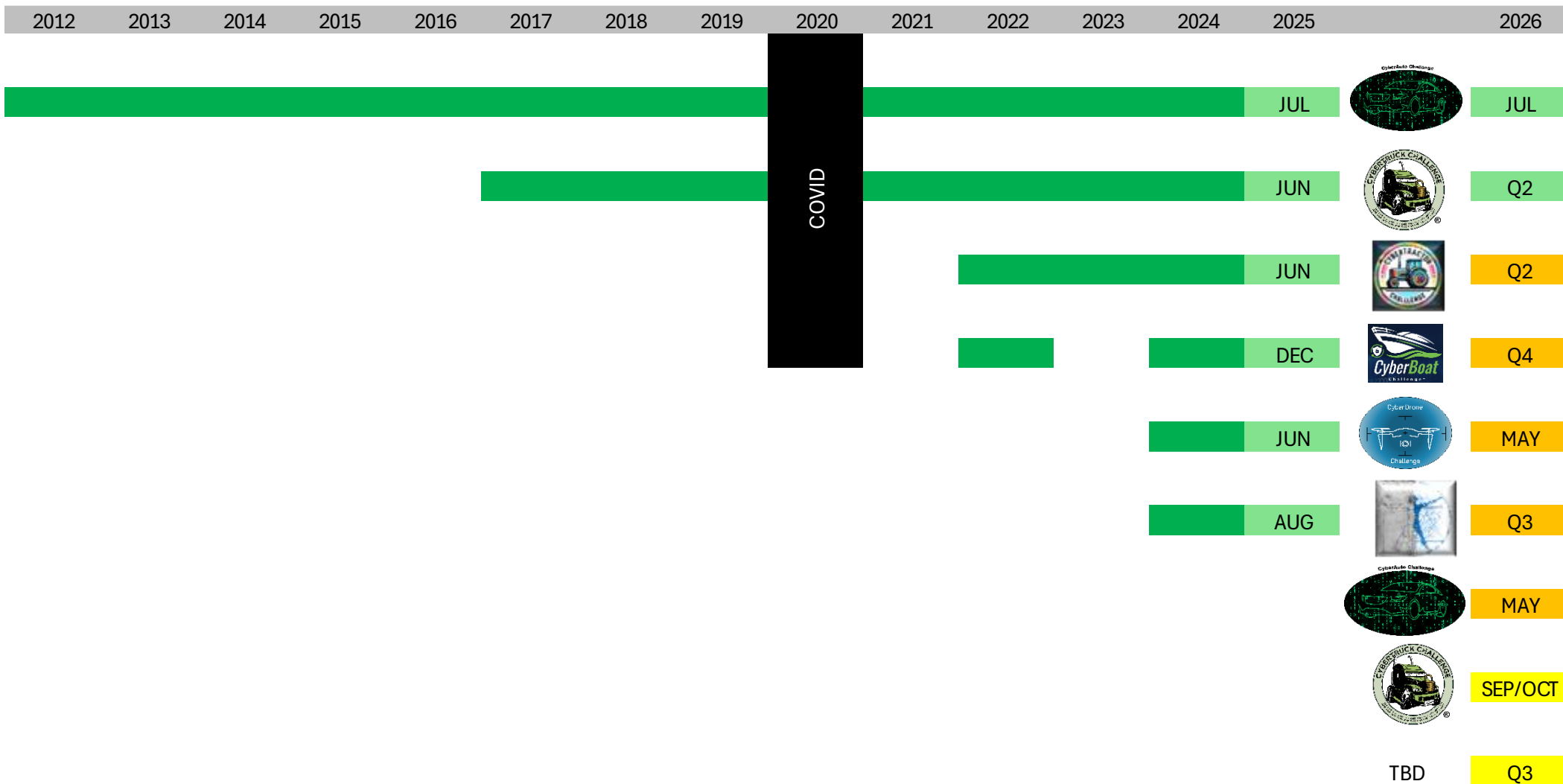
Mission & Purpose

- Help **develop the next generation workforce** by bringing awareness, excitement, professional involvement, and practicum-based training to the automotive & heavy vehicle cyber domain.
- Help **establish community of interest for automotive cybersecurity** that transcends individual companies or departments and reaches across disciplines and organizations to make a more universal and experienced base of engineers and managers.





Family of Events





Training/Schedule: 2-2-1 model

CyberTruck Challenge 2025 Schedule							Version: 20250422									
	Sunday, 8 June	Monday, 9 June		Tuesday, 10 June		Wednesday, 11 June	Thursday, 12 June	Friday, 13 June	Time							
		Group A	Group B	Group A	Group B											
Before 0700	Site Closed	Site Closed							Before 0700							
0700-0730		Breakfast		Breakfast		Breakfast	Breakfast	Breakfast	0700-0730							
0730-0800		Welcome // NDA		Diagnostics		Safety & Legal Briefing Ethics Discussion	Assessment	Awards	0730-0800							
0800-0830		Vehicle Orientation		<u>Hardware Reverse Engineering</u>				Assessment	Student Team Briefs (30 minutes each group)	0800-0830						
0830-0900		Heavy Vehicle Systems		Break		Assessment				Site Closed	0830-0900					
0900-0930		<u>Wireless</u>		<u>Hardware Reverse Engineering</u>				Assessment			Site Closed	0900-0930				
0930-1000		Command Line		Diagnostics		Assessment						Site Closed	0930-1000			
1000-1030		Lunch		Lunch				Assessment					Site Closed	1000-1030		
1030-1100		<u>OSINT</u>		Command Line		Assessment								Site Closed	1030-1100	
1100-1130		In Vehicle Networking		<u>Firmware Reversing</u>				Assessment							Site Closed	1100-1130
1130-1200		<u>Heavy Vehicle Systems</u>		Automotive Ethernet		Assessment										Site Closed
1200-1230		Break		Break				Assessment								
1230-1300		Automotive Ethernet		<u>Firmware Reversing</u>		Assessment	Site Closed									
1300-1330		Lunch		Lunch				Assessment	Site Closed							
1330-1400		<u>Wireless</u>		In Vehicle Networking		Assessment				Site Closed						
1400-1430		Keynote Address		Keynote Address				Assessment			Site Closed					
1430-1500		Dinner		Dinner		Assessment						Site Closed				
1500-1530		Trucking Industry Impact		Assessment Preparation				Assessment					Site Closed			
1530-1600		Free		Free		Assessment								Site Closed		
1600-1630		Site Closed		Site Closed				Assessment							Site Closed	
1630-1700		Site Closed		Site Closed		Assessment										Site Closed
1700-1730		Site Closed		Site Closed				Assessment								
1730-1800		Site Closed		Site Closed		Assessment	Site Closed									
1800-1830	Site Closed		Site Closed		Assessment			Site Closed	1800-1830							
1830-1900	Site Closed		Site Closed			Assessment			Site Closed	1830-1900						
1900-1930	Site Closed		Site Closed		Assessment					Site Closed	1900-1930					
1930-2000	Site Closed		Site Closed			Assessment					Site Closed	1930-2000				
2000-2030	Site Closed		Site Closed		Assessment							Site Closed	2000-2030			
2030-2100	Site Closed		Site Closed			Assessment							Site Closed	2030-2100		
2100-2130	Site Closed		Site Closed		Assessment									Site Closed	2100-2130	
2130-2200	Site Closed		Site Closed			Assessment									Site Closed	2130-2200
After 2200	Site Closed		Site Closed		Assessment											Site Closed



Training/Schedule: 3-1-1 model

CyberAuto Challenge 2025 Schedule

v.20250417

	Training Days						Assessment Day	Report & Release	
	Sunday 13 July 2025	Monday 14 July 2025 *A*	Monday 14 July 2025 *B*	Tuesday 15 July 2025 *A*	Tuesday 15 July 2025 *B*	Wednesday 16 July 2025 *A*	Wednesday 16 July 2025 *B*	Thursday 17 July 2025	Friday 18 July 2025
24-hour	Site Opens & Breakfast							ASSESSMENT	Sleep / Recover / Clear Hotel
0700-0730	Welcome		Electrical Infrastructure for Vehicles	Cellular	Cellular	Electrical Infrastructure for Vehicles	ASSESSMENT		Hearty Brunch
0730-0800	Lab Orientation								
0800-0830	Legal								
0830-0900	Team Intros / Integration		CAN & Networks	SDR / Wireless	Electrical Vehicles	Phone App Attacks	Phone App Attacks	Electrical Vehicles	ASSESSMENT
0900-0930	CAN & Networks								
0930-1000	SDR / Wireless		Diagnostic Tools / DOIP	SDR / Wireless	Electrical Vehicles	Forensics	Forensics	Electrical Vehicles	ASSESSMENT
1000-1030	CAN & Networks								
1030-1100	SDR / Wireless		Lunch						Review of NDA
1100-1130	Diagnostic Tools / DOIP		Dinner						RELEASE
1130-1200	SDR / Wireless		E-CTF		Forensics		E-CTF		ASSESSMENT
1200-1230	Diagnostic Tools / DOIP		Assessment ROE and Mission Planning						
1230-1300	Informal Social								
1300-1330	Student Talks (optional)		Keynote						
1330-1400									
1400-1430									
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2030-2100									
2100-2130									
2130-2200									
2200-2230									
2230-2400									
00-0630 next day									



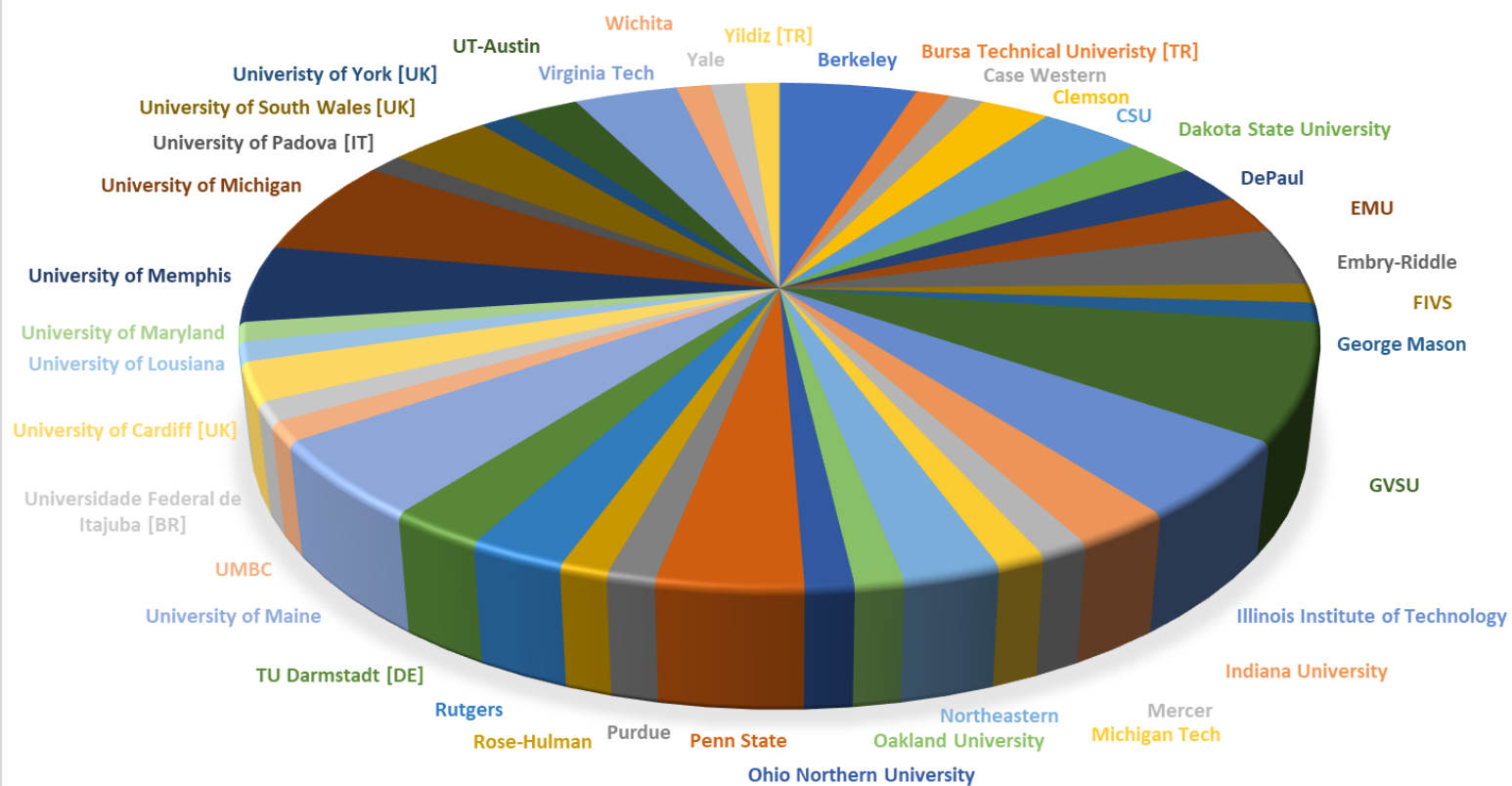
Keynotes

- Len Lapadula (co-founder of cybersecurity – Bell/Lapadula Model)
- John J Strauchs (former CIA / former tech consultant to “Sneakers” movie)
- Jim Christy (Chief of Defense Cyber Crimes Center)
- Bruce Schneier (crypto saint)
- Mudge (storied hacker and former DARPA PM)
- David Strickland (NHTSA Administrator)
- Faye Francy (Executive Director for Auto-ISAC)
- David Columbo (car hacker wunderkind)
- David Brumley (CMU Professor & CEO of ForAllSecure)



Student Data

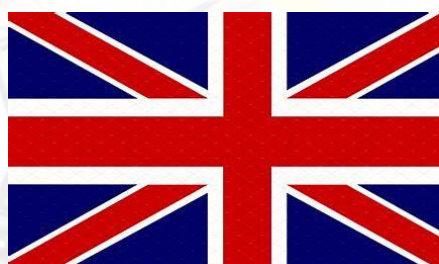
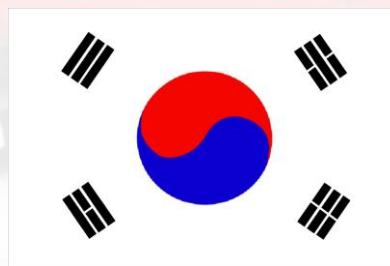
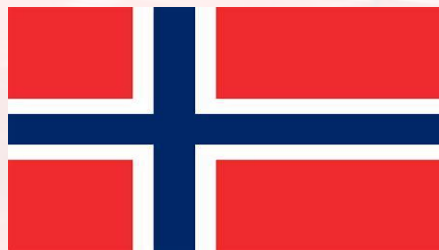
CAC-25-APPLICANT-SCHOOLS



- Berkeley
- Case Western
- Clemson
- DSU
- DePaul
- EMU
- Embry-Riddle
- Mercer
- Northeastern
- Oakland Univeristy
- Ohio Northern University
- Penn State
- Purdue
- TU Darmstadt [DE]
- University of Maine
- University of Memphis
- University of Michigan
- University of South Wales [UK]
- University of York [UK]
- Virginia Tech
- Yale
- Yildiz [TR]



Participation is International

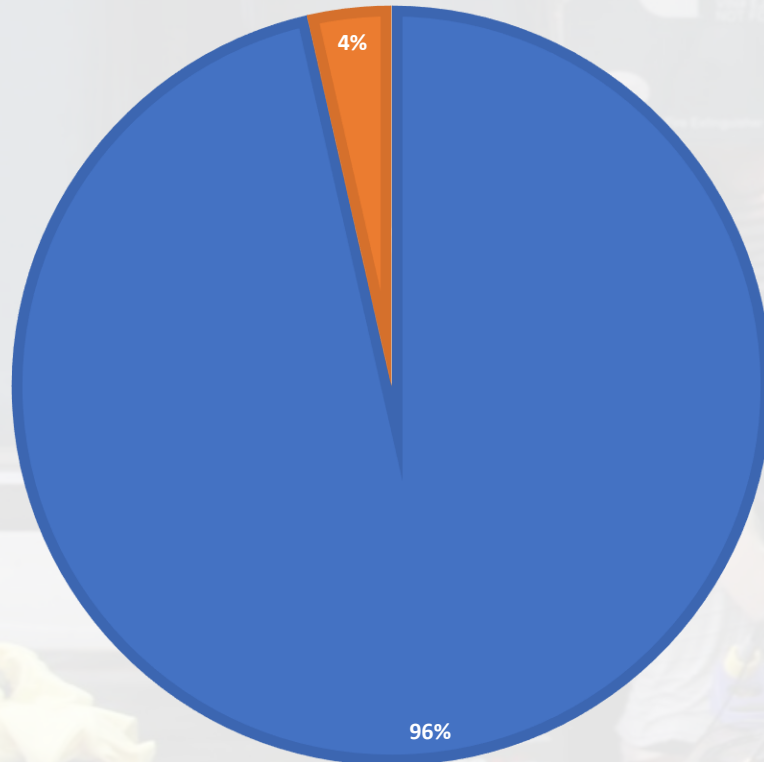




Outcomes – Student Intent & Connections

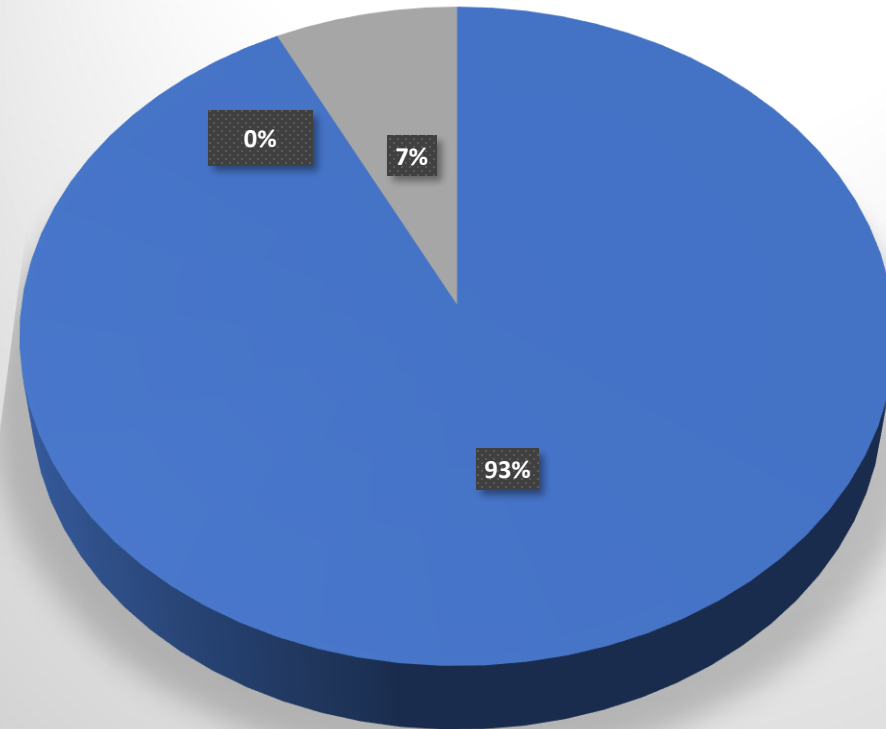
HAVE YOU FOUND A MENTOR?

■ [student] mentor yes ■ [student] mentor no



Has attending this event made you more likely to select this career?

■ [student] career more likely
■ [student] career less likely
■ [student] career no change





Outcomes – Comments

“The biggest benefit for me was talking with all the professionals in industry affirmed that I want to work in the same field.”
-- John Maag, Class of 2019 (EE)

“I definitely have found a future life path, thank you. That five days of the CyberAuto Challenge changed my life”
-- Vanya Gorbachev, Class of 2021

“In one short week I came together with a range of professionals, students, and hobbyists. We spent two days getting a broad crash course in reverse engineering. Then with teams and a mentor, we chose a project or two from a range of levels that make up the various truck systems. It was intense; I was totally engaged; it was one of the most fantastic weeks of my life.”
-- Zach Aubin, Graduate Student in Computer Science, Class of 2022.



“An incredibly rare instance where you get the chance to speak with experts in the industry and get them to help you break their cars.”
-- Levant Celik, Graduate Student, Class of 2026

“Having a neutral playing ground for these groups to meet, collaborate, and learn from each other has been an invaluable resource for Ford. Not only does it build bridges between OEMs, but it is also providing a unique team building experience and is an excellent recruiting ground to find the Cyberauto engineers of tomorrow.”
-- Tim Geiger, Manager, Vehicle and Mobility CyberSecurity at Ford Motor Company (Auto-ISAC Annual Report)



What it's Like: CyberAuto Challenge

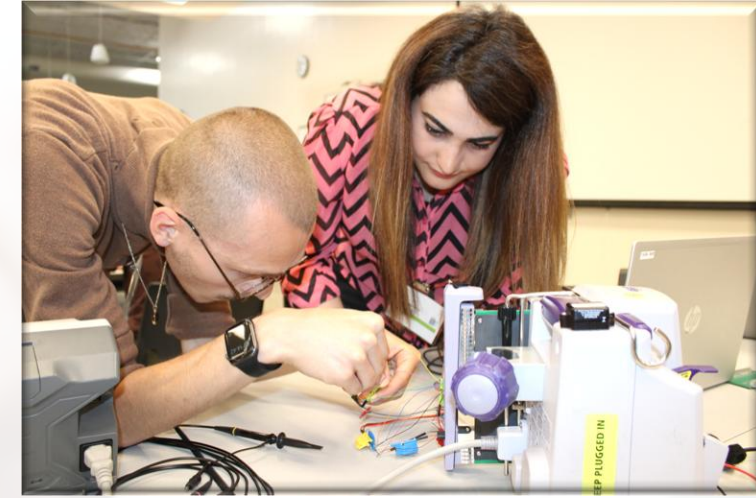


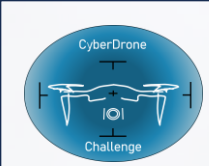


What it's Like: CyberTruck Challenge

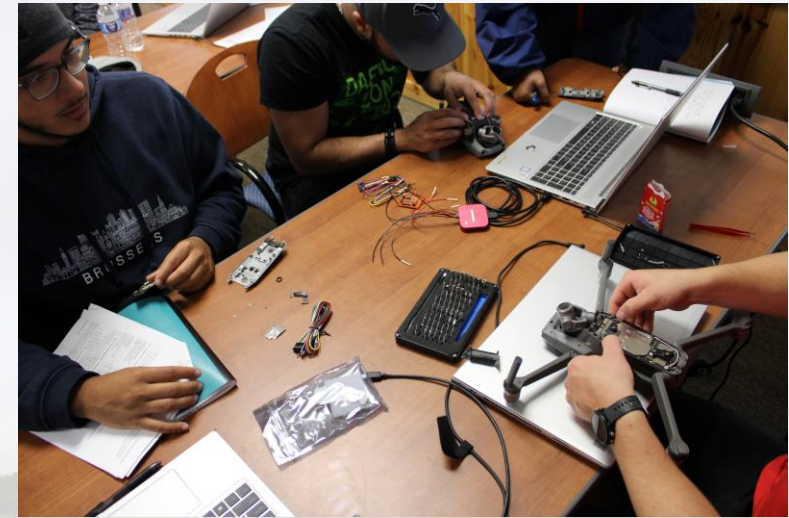


What it's Like – Boat / Tractor / Medical





What It's Like – CyberDrone Challenge



Cyber “X” Links:



www.CyberAuto-Challenge.org



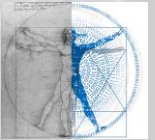
www.CyberTruckChallenge.org



www.CyberTractorChallenge.org



www.CyberBoatChallenge.net



www.CyberMedicalChallenge.org



www.CyberDrone-Challenge.org

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