

Hack Festa 2023

For Students

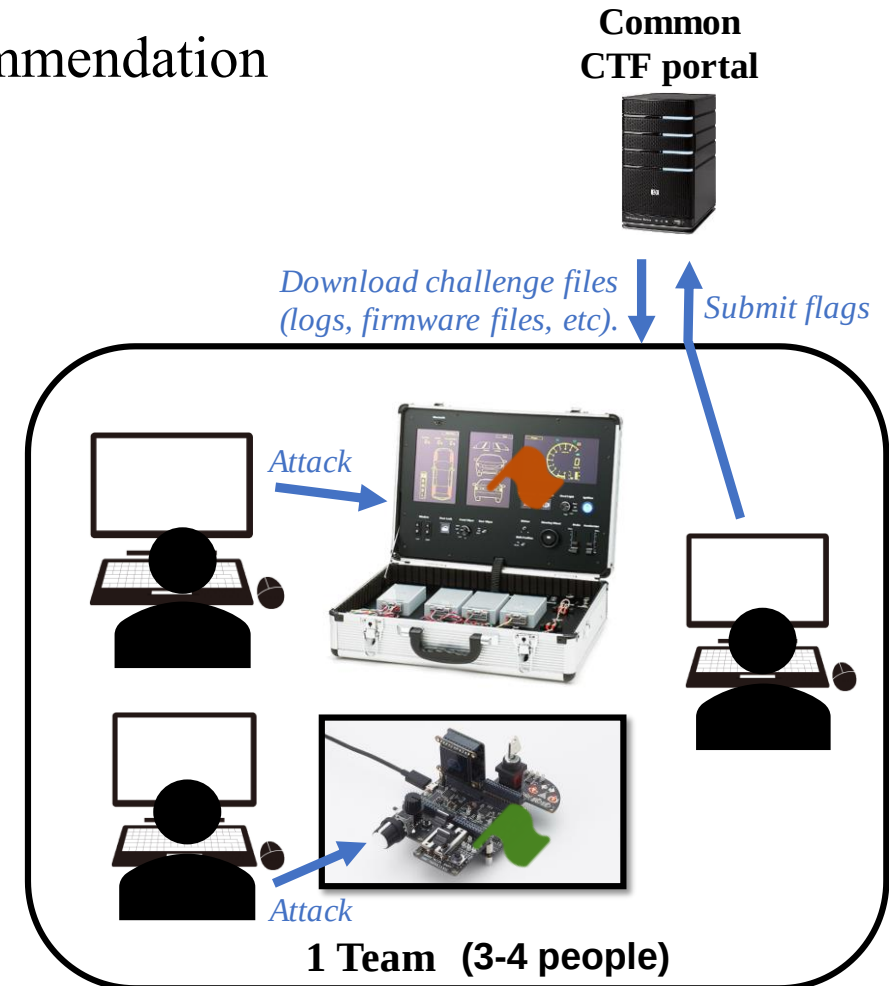
08.15.2023

TOYOTA MOTOR CORPORATION
TOYOTA MOTOR NORTH AMERICA
TOYOTA TSUSHO SYSTEMS US

What is Hack Festa?



- Motivation
 - Establish a good relationship between hacking communities & automotive industries
- Participants
 - Graduate / Undergraduates students with a professor's recommendation
 - 3-4 students per team
 - 4 teams from JP & 7 teams from US
- What to do
 - “Capture the flags” by solving tasks called “Challenges”
 - Recover “flags” by
 - Interacting with Software/Hardware
 - Analyzing firmware files/logs
- Platform
 - PASTA & RAMN: embed multiple challenges at different levels in each platform
 - Provide the platforms to each team



What is Capture the Flag?



Capture the Flag (CTF) competitions are events where teams (or individuals) compete to solve challenges (submit flags) in topics of cybersecurity. The events have an interesting history, have been 'ported' to many topics in cybersecurity and are a favorite of ours. The CTF format also has a history as a component of cybersecurity trainings and in this talk we will convince you that there are very good reasons for this. We will cover some CTF history, a handful of subjectively excellent CTFs, characteristics of a great CTF, and of a bad CTF. Anecdotes from personal and public context will be shared throughout to keep the material concrete. The concept of the increasingly popular hackathon will be covered in contrast and tied-into training experience with recent undergraduates. Attendees will leave with the ability to apply CTFs to their own ongoing training in cybersecurity as well as how to integrate CTFs into training for their teams.

Join us at TI Auditorium on Wednesday, September 6th 4pm to hear more about the History of CTF!

Our Goals and Objectives



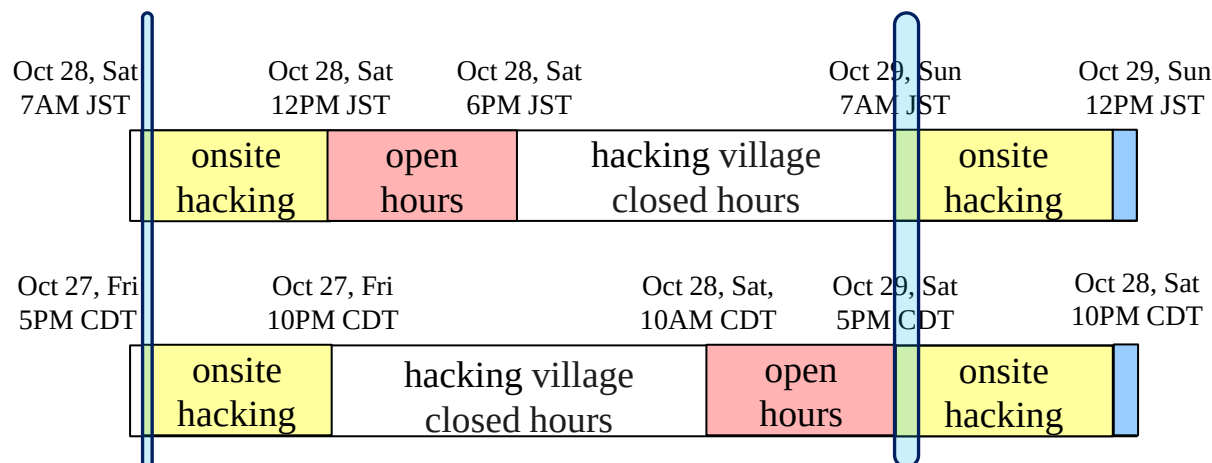
- Through HackFesta 2023, we discover talented students who would be interested in joining Toyota or our trusted suppliers as Cybersecurity engineers
- Introducing CS and EE students to Vehicle Cybersecurity
- Expose students to ethical hacking and responsible disclosure process (*Instruction about when they find the problems/vulnerabilities during the workshops)

Schedule



Time schedule – Friday, October 27th and Saturday October 28th

- 5 hours “onsite hacking” at each conference room: online working hours simultaneously
 - JST→7:00~12:00 CDT→17:00~22:00
- 6 hours “hacking village open hours” at each conference room: offline working hours
 - Available hours will depend on the decision by each location secretariat
- 12 hours “hacking village closed hours” at each accommodation: offline working hours including sleeping, eating, & private activities
- 1 hour “debriefing” at each location: catching up comments



- Day 1st: Onsite hacking hours
 - Opening remark & team introduction: 7:00AM~7:10AM(JST), 5:00PM~5:10PM(CDT)
 - Onsite hacking: 7:10AM~12:00PM(JST), 5:10PM~10:00PM(CDT)
- Hacking village opening hours: 6 hours (decided by each location)
- Hacking village closing hours: 12 hours (decided by each location)
- Day 2nd: Onsite hacking hours
 - Self introduction: 7:00AM~7:30AM(JST), 5:00PM~5:30PM(CDT)
 - Onsite hacking: 7:30AM~11:40AM(JST), 5:30PM~9:40PM(CDT)
 - Closing remark: 11:40AM~12:00PM(JST), 9:40PM~10:00PM(CDT)

Activities



- Onsite hacking
 - About 6 hours
 - Gather everyone for hacking in the conference room
- Hacking village open hours
 - 6 hours: the time slot is decided by each location relevant to secretariat convenience
 - Gather everyone for hacking in the conference room
 - NO connection for both locations & NO need to compete simultaneously
- Hacking village closed hours
 - 12 hours
 - Close the conference room
 - Hacking continuously in their private rooms
 - Participants may take testbeds to their own room
 - Eating, sleeping, sightseeing,..., as they like it

Preparation



- Workshop 1: week of September 25th (held remotely on each region)
 - Reading manuals together to get used to hardware operation
- Workshop 2: week of Oct 16th (held remotely on each region)
 - Solving one or a few challenges together to get used to our portal site
 - Q&A
- Social event: 9/20(Wednesday)10AM JST=9/19(Tuesday)8PM CDT (remotely)
 - Participation recommended
 - Greeting, short conversation, discussion about some topics (e.g. PASTA、RAMN、Hack Festa、TOYOTA)
- Hack Festa 2023: Oct 28, Sat., 7AM JST == Oct 27, Fri., 5PM CDT

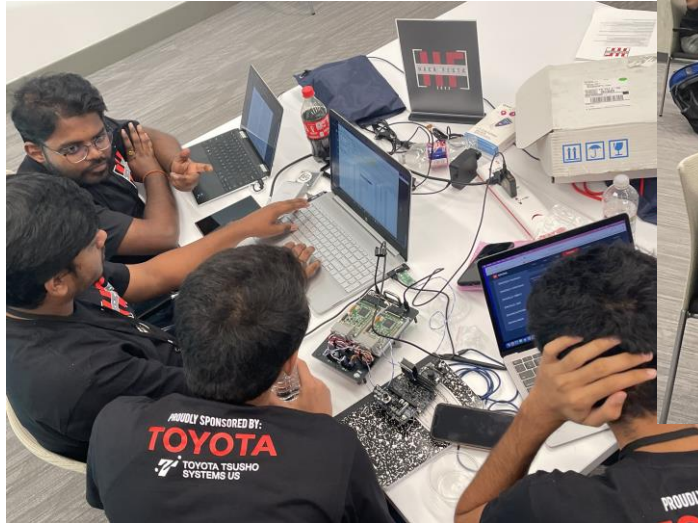
Interested?



If you are interested in participating HackFesta 2023, please ask your teachers to get further information. You need your teacher's recommendation. Your teachers are going to inform Toyota team. Thank you!



Appendix: Photos from HackFesta 2022



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