IoT STUDENTS CLUB

IoT Students Club at the University of Florida Host:

IoT Design Competition 2023

Sponsored By:

UF Warren B. Nelms Institute for the Connected World UNIVERSITY of FLORIDA

Texas Instruments

Microsoft

2023 IoT Design Competition

About Us

IoT Students Club, an affiliated organization with the Warren B. Nelms Institute for the Connected World, promotes the advancement of the Internet of Things (IoT) among the undergraduate and graduate populations at the University of Florida. Our organization encompasses all areas of the Internet of Things addressing many of the world's problems, including but not limited to public health, energy, education, and transportation. In this way, our student members can contribute towards creating secure, efficient, and connected communities. We hosted national IoT Design Competitions to showcase the IoT technology from student participants and their impact on our world. In addition, our organization provides workshops and training to students by partnering with IoT faculty and industry experts. Through our activities, the IoT Students Club seeks to encourage student participation in applying IoT technology to solve real-life problems and create further awareness about the enormous prospect of what IoT technology brings to our world.

2023 IoT Design Competition

About the Competition

This is the 3rd annual IoT Design Competition hosted by the IoT Students Club at the University of Florida. Texas Instruments, Microsoft, and the Warren B. Nelms Institute for the Connected World are proud sponsors of this competition. In this competition, teams of 1-4 members create their own IoT Project in either the hardware or software category.

This competition promotes the participation of undergraduate and graduate students in the application of IoT technology to solve real-life problems. The goal of the competition is to enhance understanding of IoT technology and applications and create awareness about the emerging field of IoT. We expect the competition to stimulate student interest in IoT and contribute towards creating a well-trained future workforce.

Eligibility: Current undergraduate and graduate students worldwide

Starter Kits: Hardware prototyping kits will be provided if needed. All hardware parts do not have to be utilized. Each kit will contain at least the following items:

- TI MSP432 P401R LaunchPad
- TI BOOSTXL-SENSORS Module
- ESP32-DevKitC Board
- USB Battery Pack

Note: Additional hardware can be incorporated but will not be provide by IoT Club.

2023 IoT Design Competition

Problem Statement

"Develop a cutting-edge hardware base IoT solution that showcases creativity and technical prowess in solving a significant real-world problem."

Problem Identification: Participants will propose their own IoT-related challenge. They will research and analyze the problem to deeply understand its implications and solutions.

Conceptualization: Participants will brainstorm and develop creative ideas for IoT solutions that can effectively address the chosen problem.

Design and Prototyping: Students will transform their concepts into tangible designs and create physical prototypes of their IoT solutions.

Testing and Optimization: Participants will thoroughly test their prototypes to identify and address any technical issues.

Submission & Presentation: Each team or participant will present their IoT solution to a panel of judges and potentially to an audience. Presentations will cover the problem, solution, technical details, potential impact, and any lessons learned during the process. Along with video presentations, teams must submit a 1-page architecture report with graphs and figures explaining your hardware prototype.

Judging and Evaluation: A panel of judges will assess each IoT solution based on criteria such as innovation, technical complexity, functionality, usability, scalability, and potential real-world impact.

2023 IoT Design Competition

Competition Timeline

Registration Phase	Competition Phase	Judgment Phase
Deadline: September 15th 2023 • A team of 1- 4 people will register for the competition using the sign-up form. • The project summary will include the design category and what topic/problem your IoT system will address • There is no registration fee for this competition	**Begins: December 8th 2023** **Ends: March 8th 2024** • Qualified teams will receive further details via email and will be invited to attend the Competition Kickoff Meeting • Teams will receive the Starter Kit at their given address and should start working on their project.	**Winner Announcement: March 27th 2024** • Teams will present final projects and demos during the judging event • Winners will be announced after the evaluation of the presentation/project demo by the judging panel

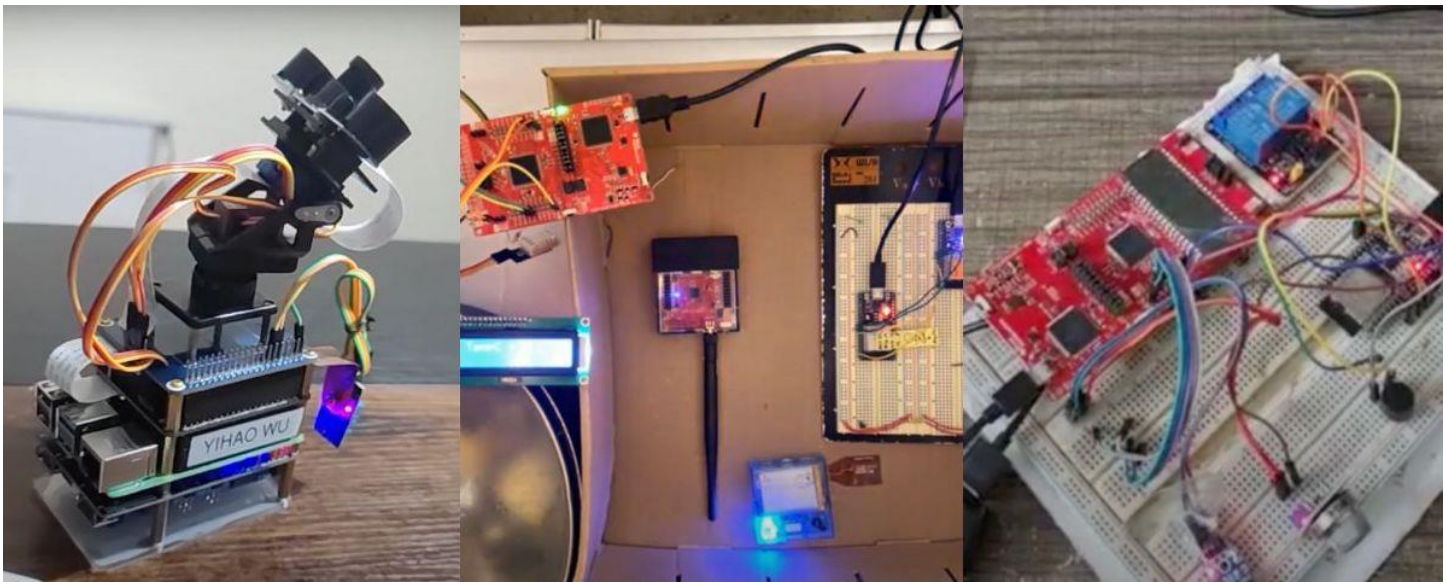
2023 IoT Design Competition

Previous Competition Submissions

Fridgigators

IoT-Based Fire Control and Notification System: A Smart Solution for Improved Safety

Low-cost human behavior monitoring system based on infrared array sensor



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Prizes and Awards

Cash prizes up to $8000 for 1st, 2nd, and 3rd place winners

Runner – up awards giving to the following categories:

Most Popular Choice

Most Novel Invention

Best Video Presentation

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Contact information:

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MS Teams Channel

Free IoT Student Club Membership Signup form

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