

Internship Opportunity (UTSA x SAMSAT – Fall 2025)

Project Sponsor: San Antonio Museum of Science and Technology (SAMSAT)

Project Title: STEMphones

Project Description: A team of x5 students will create a museum exhibit that emulates an Iphone using a touchscreen display. Each student will be given a stipend to complete the project within a 10-week schedule working at a rate of 10 hours/week. The main objectives of the project are to:

1. Improve the 3D printed frame/car mount clamp design that connects to a touch screen display so that it resembles an Iphone.
2. Upgrade and modify the power distribution box that powers the LED strings.
3. Upgrade and modify the method for connecting the LEDs from the STEMphone to the power distribution box.
4. Install/repair new LED strings.
5. Remove “escape” feature from STEMphone apps.
6. Lock device within the STEMphone environment.
7. Develop a “calling” app that can make calls between STEMphones.
8. Consider development of additional apps.
9. Build 1-2 new STEMphones exhibits.
10. Integrate all components and deliver a complete and operational system.

Roles and Requirements: Priority candidates will have one or more of the following sets of skills.

- Member 1- 3D printing, CAD design, structural analysis, metal fabrication (machine shop exp.).
- Member 2 and 3- Experience with Arduino/RaspberryPi/ESP32, hardware interfacing and electronic circuits.
- Member 4 and 5- Java, HTML, WEX/WordPress (or other web app development environment).

Students working on this internship project will work directly under Prof. Allo and Prof. Votion throughout the Fall 2025 semester upgrading a current exhibit at SAMSAT. Students should reach out to the instructors before applying to perform an early interview. Students who are admitted will need to conduct at least x3 meetings per week, visit the SAMSAT AREA 21 site, and attend kick-off and closing events.

Next Steps: If you are interested in applying for this project, please email your resume/CV to the email addresses provided in the contact information below with “*SAMSAT student application*” in the subject line. We will review the resume and provide further information.

August Allo

August.Allo@utsa.edu

Associate Professor of Instruction

Electrical and Computer Engineering Dept.

Johnathan Votion

Johnathan.Votion@utsa.edu

Assistant Professor of Instruction

Electrical and Computer Engineering Dept.