

STEM Summer Camp @ USMSM for Future Problem Solvers

The A. James Clark School of Engineering of the University of Maryland at College Park is hosting a free summer camp program at the University System of Maryland at Southern Maryland (USMSM). The program is designed for high-school students who are interested in the STEM (science, technology, engineering, and mathematics) fields of study. It will combine classroom and experiential work in mechanical and electrical engineering, electronics, and coding. It will teach engineering and math skills, as well as collaboration and teamwork, and will aim at developing these diverse skills to solve problems and encourage innovation.



Photos from UMCP Robotics Center

Summary of program activities:

- Creating your imagination with 3D printing
- Fun with Arduino (electronics, sensors, IoT, robotics)
- Learning autonomy with the TI-RSLK (Robotic System Learning Kit)

When: August 8-12, 2022

Where: Southern Maryland Autonomous Research and Technology (SMART) Building

University System of Maryland at Southern Maryland

44219 Airport Road, California, Maryland 20619

Admission fee: Free

Application deadline: August 2, 2022

Send application to: Dr. Danilo Romero (dbromero@umd.edu)

Summer Camp Agenda

Day 1: 3D Printing

10:00 – 11:00	Welcome
11:00 – 12:00	3D Printing
12:00 – 1:00	Lunch
1:00 – 3:00	3D Printing

Day 2: Arduino

10:00 – 12:00	Programming Concepts, Basic Electronics, & Blink Program
12:00 – 1:00	Lunch
1:00 – 3:00	Analog and Digital Concepts

Day 2: Arduino

10:00 – 12:00	Sensors and Displays
12:00 – 1:00	Lunch
1:00 – 3:00	Final Project

Day 4: Arduino Car

10:00 – 11:00	Chassis Construction
11:00 – 12:00	Hardware Attachments & Electronics
12:00 – 1:00	Lunch
1:00 – 2:00	Programming and Debugging (App Development)
2:00 – 3:00	Syncing the System

Day 5: TI-RSLK

10:00 – 11:00	Chassis Construction & Introduction
11:00 – 12:00	Hardware Attachments & Electronics
12:00 – 1:00	Lunch
1:00 – 2:00	Debugging & Testing
2:00 – 3:00	Conclusion

Consent / Authorizations

1. I give my consent for my child to take part in all activities that are arranged for the program participants including riding in provided van transportation. I further certify the he/she is in good health and is capable of fully participating in all activities, that persons who use the facilities of the University System of Maryland at Southern Maryland (USMSM) do so at their own risk, and that the employees and agencies of USMSM and University of Maryland are not responsible for the loss of personal property, injury, or loss of life.

Parent/Guardian Signature:

Date:

2. I understand that throughout the program, pictures and/or video may be taken and may be used to promote the programs and these photos and/or videos will become the property of the program sponsors. If you do not wish your child photographed or videoed, please inform the organizer of the program.

Parent/Guardian Signature:

Date:

3. I hereby give my consent for an authorized representative from the USMSM to call an ambulance for my child, (*Student Name*) _____ for medical care in an emergency situation. I understand that conscientious effort will be made to notify the parents/guardians prior to such action. Any expense incurred will be borne by the parent/guardian and treatment may take place at any medical facility.

Parent/Guardian Signature:

Date: