# Orange County Schedule

# 2019 RoboPlay

# **Racing & Automotive**

MAY 18, 2019

### COASTLINE COLLEGE & UCDAVIS C-STEM CENTER c-stem.ucdavis.edu

### C-STEM is a UC approved Educational Preparation Program for Undergraduate Admission to all UC Campuses

### **Message From the Director**

Dear C-STEM Teachers and Students,

Welcome to the 2019 RoboPlay Challenge Competition!

As always, our C-STEM team has organized an extraordinary day for our C-STEM students. Our goal is for all our C-STEM students show off their teamwork, critical thinking, and problem solving skills in a fun environment. Today will be full of excitement as students overcome the racing and automotive challenges we have laid out. For the first time ever we are welcoming students from 5th and 6th grade into their own specialized division!

We are very proud to be a UC Approved Educational Preparation Program for undergraduate admission to all UC campuses. We are particularly proud of our C-STEM Math-ICT Curriculum which provides students with up to 13 years of computer science education through hands-on integrated learning of math and computer science.

As the program grows and expands, so does our wealth of curriculum and educational technologies. We are excited to announce our upcoming release of C-STEM Studio version 6.0 which overhauls the user experience to add more features for Linkbots with Arduino, Raspberry Pi, and RoboBlockly. In addition, this version will provide support for controlling hardware Linkbots from RoboBlockly and Chromebooks! As always, C-STEM Studio continues to be a freely available resource for all students and teachers.

We would like to extend a warm welcome to our new participants this year and welcome back those who are returning. We have an extraordinary group of students with us and are operating at maximum capacity of the UC Davis Pavilion. We have an impressive showing of over 150 teams between our two sites.

Excitement is also growing as we get closer to our Girls in Robotics Leadership (GIRL) and GIRL+ camps this summer where we will have more participants than ever before both in California and, for the first time, internationally.

We are proud of all of you. Good luck in the competition!

Dr. Harry H. Cheng C-STEM Center Director and Professor

### Organized by



# COASTLINE COLLEGE

### **RoboPlay Challenge Competition Schedule - May 18, 2019**

TIME	EVENT
7:30 - 8:30 AM	Registration and Setup for RoboPlay Challenge Competition
8:30 - 8:40 AM	Welcome and Introduction
8:40 - 9:00 AM	RoboPlay Challenge Competition Introduction
9:00 - 12:00 PM	RoboPlay Challenge Competition Problem Solving
12:00 - 12:45 PM	Lunch Break
12:45 - 3:45 PM	RoboPlay Challenge Competition
3:45 - 4:00 PM	Break Time
4:00 - 5:00 PM	Awards Ceremony:
	RoboPlay Video Competition Winners

• RoboPlay Challenge Competition Winners

### **Contact Information**

C-STEM Center Director:	Education Service Manager:	C-STEM Regional Organizer Orange County Site:
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Share photographs taken during the RoboPlay Competition with the UC Davis C-STEM Center at roboplay@c-stem.ucdavis.edu for a chance to be featured on the C-STEM website and social media!

### COMMITTEES

#### **RoboPlay Competition Volunteer Leadership**

RoboPlay Chief Judge: Rex Schrader RoboPlay Coordinator: Emma Kristovich RoboPlay Video Coordinator: Shane Ludwig

Davis, CA		Irvine, CA	
Regional Chair:	Daniel Ryan	Regional Chair:	Merry Kim,
Regional Coordinator:	Emma Kristovich		Coastline College
Head Judge: Division Lead Judges:	Rex Schrader Ted Pham Dan Hull	Regional Coordinators:	Andrea Gallyon, Coastline College
	Myron Hattig Chris Smith		Handrias Fujianto, Coastline College
MC:	Collette Adams Dean Bunn		Michael Franklin, Irvine Valley College
Challenge Development Team		Head Judge:	Ansel Teng

Emma Kristovich (Lead) Rex Schrader (Advisor) Daniel Ryan (Advisor) Steven Herman Tim Hulse Celine Liang Gabriella Quattrone

#### **Challenge Testing Team**

Emma Kristovich (Advisor) Ananye Agarwal Jimmy Hoang Jonathan Li Ryan Ramirez Diego Rojas Ching Yang

### Challenge Review Team

Bruce Feinstein

Ajith Gopinathan

Collette Adams Dan Adams Heidi Arnold Myron Hattig Matt Hauss Jennifer Ludwig Shane Ludwig Ted Pham Rex Schrader

Division Lead Judge:

### **General Information**

Each Division has 10 challenges to complete in any order. Challenges provide explicit instructions for receiving points. The goal is to get as many points as possible. Most challenges have partial points available, so teams may attempt portions of challenges as well.

The day is broken into two parts, unscored practice and scored competition. Each part is three hours long. Students may check their nametags or the schedule brochure for their practice and competition time slots. If they are late, they will not be allowed to make up any time.

#### **Unscored Practice Information**

- All teams have a designated practice area (pit) that gives them space to practice with their own 2019 RoboPlay practice mat.
- Each team receives two 17-minute practice periods to practice on their official 2019 RoboPlay Competition Board between 10am and noon that is located in the competition area.

#### **Scored Competition Information**

- Each team is assigned an official 2019 RoboPlay Competition Board in the Competition Area that is monitored by one or more RoboPlay Judges.
- Each team receives three 17-minute competition periods to compete on their official 2019 RoboPlay Competition Board between 12:45pm and 3:45pm.

### **General Rules**

- Teams may not share laptops or use more materials than are specified in the Equipment section at any time in any location.
- Use of electronics other than the allowed laptops is strictly prohibited. This includes other computers, calculators, cell phones, tablets, or any other computing device.
- There will be no internet access during the competition. Any team caught using the internet will be disqualified.
- Teams may not share the computer programs they create with any other team. This will be considered cheating and both teams will be disqualified.
- Teams may speak to the judges or the Support Team for clarification, but students may not solicit help with challenges or Linkbots from students outside their team, any teachers, or any parents or observers.
- Teams may only bring one laptop into the Competition Area at a time.
- Teams may not interact with their running program at their Competition Table unless explicitly allowed in the challenge text. Some challenges will require user interaction at startup.
- Teams are responsible for setting up the Competition Board for each run of each challenge as specified in the challenge text unless otherwise stated.

### **Scoring Rules**

- Any challenge that is ongoing when a team's 17-minute time slot ends will be immediately stopped and points will be calculated based on the rules for a partial call.
- Students may attempt each challenge as many times as they like within their allotted competition time. If a challenge is attempted multiple times, the points from the highest scoring run will be kept.
- Challenges may not be "chained together" meaning that a single program cannot receive points for more than one challenge at a time.
- Each challenge attempt, regardless of outcome, counts as a run. In the case of two teams with identical scores, the number of runs will be used as a tie-breaker, with the lowest number of attempts winning the tie.
- Teams abort a run at any time by touching a running Linkbot or calling "abort." Aborted runs still count as attempts and score zero points.
- While a program is still executing but no penalty points are possible, teams may ask the judge for a "partial call" in order to abort the run but still receive partial points. The judge must agree to the partial call before teams touch any Linkbots or the run will be scored as an abort.
- At the end of each run the judge will show teams their run number and run score prior to submission. If a team wishes to contest the score for a run, they must call for a Head or Lead Judge at that time.

### **Challenge Competition Awards**

#### **Regional Awards**

Regional awards are given to the first, second, and third place winners for each division at each of the RoboPlay Locations. Regional awards are not issued in divisions with fewer than 4 competing teams.

### **Statewide Awards**

Statewide awards are given to the first, second, and third place winners for each division across the state.

### Judges Awards

The judges decide three additional awards for each division at each RoboPlay Location:

- Perseverance Award This award goes to the team that improvises and overcomes a difficult situation while still maintaining a high level of performance.
- Spirit Award This award celebrates a team that displays extraordinary enthusiasm and spirit
- Teamwork Award This award recognizes a team that fluidly works together with strong communication, tasks delegation, and excellent time management.

### **SCHEDULE FOR ROBOPLAY COMPETITION - DIVISION A**

SCHOOL	TEACHER	TEAM NAME	BOARD & PIT	PRACTICE	COMP TIMES
Irvine High	Faten Sakallah	EngiNERDS	A/01	10:40 - 10:57 11:40 - 11:57	1:25 - 1:42 2:05 - 2:22 2:45 - 3:02
Northwood High School	Ibeth Ortiz Jaime	!false is so true	A/02	10:20 - 10:37 11:20 - 11:37	1:05 - 1:22 1:45 - 2:02 3:05 - 3:22
Northwood High School	Ibeth Ortiz Jaime	RoboSlay	A/03	10:00 - 10:17 11:00 - 11:17	12:45 - 1:02 2:25 - 2:42 3:25 - 3:42
Northwood High School	Jared Guiou	The Java Brewers	B/04	10:40 - 10:57 11:40 - 11:57	1:25 - 1:42 2:05 - 2:22 2:45 - 3:02
Serrano Intermediate	Darin Petzold	Serrano Alumni: 8-Bit Robotics	B/05	10:20 - 10:37 11:20 - 11:37	1:05 - 1:22 1:45 - 2:02 3:05 - 3:22
University High School	Tinh Tran	UNITE Team 1	B/06	10:00 - 10:17 11:00 - 11:17	12:45 - 1:02 2:25 - 2:42 3:25 - 3:42
University High School	Tinh Tran	UNITE Team 2	C/07	10:40 - 10:57 11:40 - 11:57	1:25 - 1:42 2:05 - 2:22 2:45 - 3:02
Westminster High School	Douglas Havard	Bot Lane	C/08	10:20 - 10:37 11:20 - 11:37	1:05 - 1:22 1:45 - 2:02 3:05 - 3:22
Westminster High School	Huy Pham	Botscouts	C/09	10:00 - 10:17 11:00 - 11:17	12:45 - 1:02 2:25 - 2:42 3:25 - 3:42
Westminster High School	Huy Pham	S'mores	D/10	10:40 - 10:57 11:40 - 11:57	1:25 - 1:42 2:05 - 2:22 2:45 - 3:02

### **SCHEDULE FOR ROBOPLAY COMPETITION - DIVISION B**

SCHOOL	TEACHER	TEAM NAME	Board & Pit	PRACTICE	COMP TIMES
Serrano Intermediate	Pamela Olaveson	Serrano Alumni: The Coders Who Say Ni!	E/11	10:20 - 10:37 11:20 - 11:37	1:05 - 1:22 1:45 - 2:02 3:05 - 3:22

### **SCHEDULE FOR ROBOPLAY COMPETITION - DIVISION C**

SCHOOL	TEACHER	TEAM NAME	BOARD & PIT	PRACTICE	COMP TIMES
Corona del Mar Middle School	Peter Selby	Corona del Mar C- Kings	F/12	10:40 - 10:57 11:40 - 11:57	1:25 - 1:42 2:05 - 2:22 2:45 - 3:02
Corona del Mar Middle School	Peter Selby	Corona del Mar Wifighters	F/13	10:20 - 10:37 11:20 - 11:37	1:05 - 1:22 1:45 - 2:02 3:05 - 3:22

### **SCHEDULE FOR ROBOPLAY COMPETITION - DIVISION C**

SCHOOL	TEACHER	TEAM NAME	BOARD & PIT	PRACTICE	COMP TIMES
Horace Ensign Intermediate	Todd Metcalf	7-Dimensional Ducks	F/14	10:00 - 10:17 11:00 - 11:17	12:45 - 1:02 2:25 - 2:42 3:25 - 3:42
Horace Ensign Intermediate	Todd Metcalf	Once-ler and the SeaBees	G/15	10:40 - 10:57 11:40 - 11:57	1:25 - 1:42 2:05 - 2:22 2:45 - 3:02
Los Alisos Intermediate	Dan Moreno	LOSA ProSteminites	G/16	10:20 - 10:37 11:20 - 11:37	1:05 - 1:22 1:45 - 2:02 3:05 - 3:22
Los Alisos Intermediate	Dan Moreno	LOSA Steminites	G/17	10:00 - 10:17 11:00 - 11:17	12:45 - 1:02 2:25 - 2:42 3:25 - 3:42
McPherson Magnet	Lauri Truong	Hoodie Clan	H/18	10:40 - 10:57 11:40 - 11:57	1:25 - 1:42 2:05 - 2:22 2:45 - 3:02
McPherson Magnet	Lauri Truong	MMSGA	H/19	10:20 - 10:37 11:20 - 11:37	1:05 - 1:22 1:45 - 2:02 3:05 - 3:22
Rancho Santa Margarita	Mark Bantle	RSM Roadrunners 1	H/20	10:00 - 10:17 11:00 - 11:17	12:45 - 1:02 2:25 - 2:42 3:25 - 3:42
Rancho Santa Margarita	Mark Bantle	RSM Roadrunners 2	I/21	10:40 - 10:57 11:40 - 11:57	1:25 - 1:42 2:05 - 2:22 2:45 - 3:02
Serrano Intermediate	Darin Petzold	Serrano sySTEMatics	I/22	10:20 - 10:37 11:20 - 11:37	1:05 - 1:22 1:45 - 2:02 3:05 - 3:22
Serrano Intermediate	Pamela Olaveson	Serrano Circuit Breakers	I/23	10:00 - 10:17 11:00 - 11:17	12:45 - 1:02 2:25 - 2:42 3:25 - 3:42
Sierra Vista Middle School	Dieter Kutz	Sierra Vista Middle School Team 1	J/24	10:40 - 10:57 11:40 - 11:57	1:25 - 1:42 2:05 - 2:22 2:45 - 3:02
Sierra Vista Middle School	Dieter Kutz	Sierra VIsta Middle School Team 2	J/25	10:20 - 10:37 11:20 - 11:37	1:05 - 1:22 1:45 - 2:02 3:05 - 3:22
Sierra Vista Middle School	J.P. Mathot	Fossilology	J/26	10:00 - 10:17 11:00 - 11:17	12:45 - 1:02 2:25 - 2:42 3:25 - 3:42
Sierra Vista Middle School	J.P. Mathot	Pua	K/27	10:40 - 10:57 11:40 - 11:57	1:25 - 1:42 2:05 - 2:22 2:45 - 3:02
South Lake Middle School	Nga Le	Shark Machine	K/28	10:20 - 10:37 11:20 - 11:37	1:05 - 1:22 1:45 - 2:02 3:05 - 3:22
South Lake Middle School	Nga Le	The Hobbiterds	K/29	10:00 - 10:17 11:00 - 11:17	12:45 - 1:02 2:25 - 2:42 3:25 - 3:42

### SCHEDULE FOR ROBOPLAY COMPETITION - DIVISION D

SCHOOL	TEACHER	TEAM NAME	BOARD & PIT	PRACTICE	COMP TIMES
McPherson Magnet	Patricia Marzolo	The Robo Dance Party	L/30	10:00 - 10:17 11:00 - 11:17	12:45 - 1:02 2:25 - 2:42 3:25 - 3:42
McPherson Magnet	Patricia Marzolo	The Robomaster	L/31	10:40 - 10:57 11:40 - 11:57	1:25 - 1:42 2:05 - 2:22 2:45 - 3:02
Plaza Vista	Shawn Gillespie	PV Boys Team	L/32	10:20 - 10:37 11:20 - 11:37	1:05 - 1:22 1:45 - 2:02 3:05 - 3:22
Plaza Vista	Shawn Gillespie	PV Girls Team	M/33	10:00 - 10:17 11:00 - 11:17	12:45 - 1:02 2:25 - 2:42 3:25 - 3:42
Wagon Wheel Elementary School	Dionne Petzold	Wagon Wheel BOTs (Boys Over the Top)	M/34	10:40 - 10:57 11:40 - 11:57	1:25 - 1:42 2:05 - 2:22 2:45 - 3:02
Wagon Wheel Elementary School	Dionne Petzold	Wagon Wheel GG COAT (Greatest Girl Coders of All Time)	M/35	10:20 - 10:37 11:20 - 11:37	1:05 - 1:22 1:45 - 2:02 3:05 - 3:22

### **Orange County C-STEM 2019**

(C-STEM = Computing, Science, Technology, Engineering & Math)

#### Participating Elementary, Middle, High School and ROP Instructors

Peter Selby (Physics) - Corona del Mar Middle School

Todd Metcalf (Math) - Horace Ensign Intermediate

Faten Sakallah (Engineering & CS) - Irvine High School

Dan Moreno – Los Alisos Intermediate

Patricia Marzolo - McPherson Magnet School

Lauri Truong – McPherson Magnet School

Jared Guiou – Northwood High School

Shawn Gillespie – Plaza Vista School

Ibeth Ortiz Jaime (Computer Science) - Northwood High School

Mark Bantle (S.T.E.M.) - Rancho Santa Margarita Intermediate

Pamela Olaveson – Serrano Intermediate

Darin Petzold (Engineering/PLTW) - Serrano Intermediate

Dieter Kutz – Sierra Vista Middle School

JP Mathot – Sierra Vista Middle School

Nga Le – South Lake Middle School

Tinh Tran (Engineering) – University High School

Dionne Petzold – Wagon Wheel Elementary

Huy Pham (Science) – Westminster High School

Douglas Havard (Science) – Westminster High School

### **Acknowledgements**

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#### Dr. Loretta Adrian, President Dr. Vince Rodriguez, VP of Instruction Dr. Nancy Jones, Dean of Business & CTE

for their support of the Orange County C-STEM Project and its success.

Our appreciation and recognition of the following individuals who believe in the importance of C-STEM and in the power of innovation and collaboration to create opportunities for students in Orange County:

- Ibeth Jaime Aguilar, Northwood HS
- Mark Bantle, SaddlebackValley USD
- Kathy Boyd, OCDE
- Gustavo Chamorro, LA/OC RC
- William Chang, INCOSE
- Christine Cherry, CTEp
- Andrea Gallyon, Coastline College
- Pamela Klister, SVEF
- Marilyn Cunneen, Huntington Beach USD
- Marie Christie Dam, Prop 39 Director
- Linda DiMario, Greater Irvine Chamber of Commerce
- Joe Erven, McPherson Magnet
- Debra Friedman
- Handrias Fujianto, Coastline College
- Ajith Gopinathan
- Chris Harrington, CSU Fullerton
- Carol Hume, Coastline ROP
- Don Isbell, Santa Ana USD
- Patsy Janda, Irvine USD
- Jillian Johnson-Sharp, CTEp
- Raja Khabbaz, IEEE
- Kris Kough, University High School
- Merry Kim, Coastline College
- Carolyn Larson, University HS
- Grant Litfin, Tustin USD

- Chan Loke, Irvine Valley College
- Carlos Macias, University HS
- Maria Madrigal, Digital Media Center
- Raul Manriquez & Staff, University HS
- Beverly Matsuda, Northwood HS
- Connie Mayhugh, Huntington Beach UHSD
- Alisa McCord, OCDE
- Laila Mertz, Coastline College
- Bruce Noble, DSN Energy
- Laura Ott, Saddleback Valley USD
- Connie Park, University HS
- Len Pettis
- Darin Petzold, Saddleback Valley USD
- Debra Richardson, UC Irvine
- Sarah Santoyo, Rancho Santiago CCCD
- Dejah Swingle, Mt. San Antonio College
- Ansel Teng
- Kim Thomason, Saddleback Valley USD
- Monique Trombley
- Laurie Truong, Orange USD
- Shirley Tseng, INCOSE
- Keith Tuominen, Irvine USD
- Michael Vossen, Newport-Mesa USD
- Peggy Webster, Newport-Mesa US

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#### **COASTLINE COLLEGE**

Coastline is one of the nation's most innovative institutions, providing classes with advanced distance learning options as well as neighborhood campuses. In addition, Coastline offers numerous options for degrees and certificates in several popular fields that are in demand by employers: Cybersecurity, Networking/IT, Business, Accounting, Digital Media Design, and more. Coastline's top-rated faculty and staff work hand-in-hand with business and industry to tailor these programs to meet today's business demands. Coastline offers a small-college feel with big-college benefits. Students can obtain a degree, certificate, or transfer to another institution of higher learning. Coastline offers students the most accessible, flexible, and affordable option. For information, please visit <a href="http://www.coastline.edu/">http://www.coastline.edu/</a> or for C-STEM OC, email <a href="http://www.coastline.edu/">mkim170@coastline.edu/</a>.

#### **COASTLINE COLLEGE - CYBERSECURITY PROGRAM - CYBERPATRIOT PROGRAM**

Coastline College is a leader in cybersecurity education and has received national designation as a Center of Academic Excellence in Cyber Defense Education. Coastline has been awarded National Science Foundation, National Security Agency, and other prestigious grants – in addition to the California Cybersecurity Apprenticeship Project grant from the California Community Colleges Chancellor's Office (<u>https://ccap-coastline.org</u>). In Spring 2019, Coastline hosted the Western Regional Collegiate Cyber Defense Competition, a highly regarded competition for 2 and 4-year post-secondary institutions: Stanford University team placed first, San Francisco Community College second, and UC Irvine third.

For the past four years, Coastline has initiated and scaled the CyberPatriot Program, the national youth cyber education program, created by the Air Force Association to inspire K-12 students toward careers in cybersecurity or other science, technology, engineering and mathematics (STEM) disciplines critical to our nation and economy. Awarded Strong Workforce Regional grant funds for the CyberPatriot Program, Coastline has led the project and partnered with Irvine Valley and Cypress Colleges to provide fun and hands -on cybersecurity educational opportunities for Orange County's middle and high school students.

#### DOING WHAT MATTERS FOR JOBS AND THE ECONOMY

Among the activities of the California Community Colleges Chancellor's Office, the programs of the Division of Workforce and Economic Development bridge the skills and jobs mismatch and prepare California's workforce for 21st century careers. The Division collaborates with employers, organized labor, local communities, and their community colleges

#### The **Opportunity**

The opportunity exists for community colleges to become essential catalysts in California's economic recovery and jobs creation at the local, regional and state levels.

#### The Strategy

Doing What MATTERS for jobs and the economy is a four-pronged framework to respond to the call of our nation, state, and regions to close the skills gap. The four prongs are:

- Give Priority for Jobs and the Economy »
- Make Room for Jobs and the Economy »
- Promote Student Success »
- Innovate for Jobs and the Economy »

#### Goals

The goals of Doing What Matters for Jobs and the Economy are to supply in-demand skills for employers, create relevant career pathways and stackable credentials, promote student success and get Californians into open jobs.

#### The Road Ahead

A focus on priority/emergent sectors and industry clusters; take effective practices to scale; integrate and leverage programming between funding streams; promote common metrics for student success; remove structural barriers to execution.

California's community colleges are vital to the economy

The California Community Colleges play an important role in boosting our state's economy by serving more than 2.6 million students a year. In fact, one out of four community college students in the U.S. is enrolled in a California community college, making it the nation's largest system of higher education.

Our 114 colleges provide students with the knowledge and background necessary in today's competitive job market. With a wide range of educational offerings, the colleges provide workforce training, basic skills courses in English and math, certificate and degree programs and preparation for transfer to four-year colleges and universities. In a difficult economy, a college education is critical. Our campuses also serve as a natural gateway for veterans seeking a degree or job skills to transition to civilian life.

#### **INFORMATION & COMMUNICATION TECHNOLOGY - DIGITAL MEDIA**

Information Communications Technologies (ICT) and Digital Media are now integrated into almost every technology, industry and job. Consequently, understanding ICT and Digital Media as a sector requires that we look at the producers of and the users of ICT and Digital Media.

#### IEEE - ORANGE COUNTY



Advancing Technology for Humanity

Institute of Electrical and Electronics Engineers (IEEE) is the world's largest technical professional organization dedicated to advancing technology for the benefit of humanity. <u>www.ieee.org</u>

#### **INCOSE-OC CHAPTER**

The International Council on Systems Engineering (INCOSE) is a not-for-profit membership organization founded to develop and disseminate the interdisciplinary principles and practices that enable the realization of successful systems. INCOSE is designed to connect SE professionals with educational, networking, and career-advancement opportunities in the interest of developing the global community of systems engineers and systems approaches to problems. We are also focused on producing state-of-the-art work products that support and enhance this discipline's visibility in the world. <a href="https://www.incose.org/about-incose">https://www.incose.org/about-incose</a>

#### **CREATIVITA INSTITUTE**

Creativita Institute is in the development of fun and inspiring activities for young people who are interested in becoming our future science and technology leaders. Creativita Institute works with different educational organizations, industry experts, and non-profit organizations on establishing hands-on environment to promote exciting mentor-based projects. <u>http://creativitainstitute.org/</u>

#### SADDLEBACK VALLEY EDUCATION FOUNDATION

The mission of the Saddleback Valley Educational Foundation (SVEF) is to provide support resources to all students in the Saddleback Valley by enhancing the educational opportunities and experiences through partnering with school, home and community. SVEF is dedicated to supporting the Saddleback Valley Unified School District in their efforts to maintain a high quality educational program with a priority to impact STEM access for all students. <u>https://sveffoundation.org/</u>

### **BE A PART OF C-STEM**

The UC Davis Center for Integrated Computing and STEM Education (C-STEM) aims to transform computing, science, technology, engineering, and mathematics (C-STEM) education through integrated learning, guided by two key objectives: To close the mathematics achievement gap that exists in K-12 education, and to develop students' 21st century problem solving skills in order to tackle real world concerns.

The C-STEM program has been implemented across various regions in California, and will soon be implemented in new areas across the United States. The program only works when everyone is involved to help students succeed: parents, teachers, school administration, and community.

We are looking forward to seeing you become part of C-STEM in any of the following ways:

#### Volunteer your time:

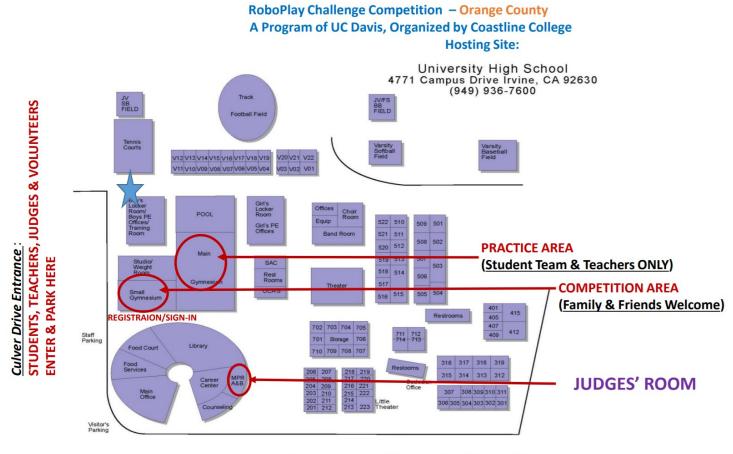
C-STEM events such as the RoboPlay Challenge Competition wouldn't be possible without volunteers. No experience required! In addition, if you are a C-STEM teacher, there are numerous ways you can help the C-STEM program, at your local district, at conferences, or at other events.

#### Make a donation:

The C-STEM Center is currently looking for individual, corporate, and foundation sponsors to help fund C-STEM scholarships, events, and programs. We can work with you to design a sponsorship package that meets your needs and helps provide C-STEM programming and educational opportunities to more students across the nation.

#### Talk to others about C-STEM:

Help bring C-STEM programming to your local school and district! If you liked what you saw at the RoboPlay Challenge Competition and would like to see it in your child's local school and district, contact Dr. Harry Cheng, C-STEM Center Director and Professor, (530) 752-5020, hhcheng@ucdavis.edu. It also helps to talk to your teachers and principals at your schools and help us connect with them!



<u>Campus Drive Entrance</u> – Friends, Families and Community Members Enter & PARK HERE







# COASTLINE COLLEGE





## Hewlett Packard Enterprise

