# UC DAVIS SCHEDULE

RoboPa Challenc

search and rescue



# Message From the Director

Dear C-STEM Teachers and Students,

Welcome to C-STEM Day 2017!

We have planned an exciting day for our C-STEM students to show off their teamwork and problemsolving skills! As the UC Davis C-STEM Center continues to expand and grow with new team members, we continue to celebrate the achievements of our teachers and their students with support from parents and volunteers on C-STEM Day with the RoboPlay Competition.

We are proud to be a UC Approved Educational Preparation Program for Undergraduate Admission to all UC campuses. The C-STEM integrated mathematics, computing and robotics curriculum is implemented in over 200 schools across California. This year, we are expanding the C-STEM program in other states in the nation.

The C-STEM program is continuously striving to innovate our curriculum with more resources. We believe that it is important to provide students with a C-STEM pathway of UC A-G approved courses that schools can readily and easily integrate. Our C-STEM Math-ICT Curriculum provides K-12 students with up to 12 years of computer science education through hands-on integrated learning of math and computer science, starting in the first grade.

As we continue to develop C-STEM curriculum, we also develop educational computing and robotics technologies that allow teachers and students to access our content quickly and easily. Many of you have already experienced C-STEM Studio, a freely available tool that provides teachers and students a centralized resource platform to work with. Usage of RoboBlockly, another freely available tool, that allows for web-based robotic simulation using a drag and drop puzzle-piece like interface continues to soar. We are excited that all C-STEM software now can run in ultra-low-cost Raspberry Pi computers. Our professional development and curriculum provide teachers and students with the skills and knowledge necessary to be creative with physical computing and join the maker revolution.

We are so pleased to see familiar and new faces at this year's competition. Some of you have been participating in C-STEM Day since it began 7 years ago and we celebrate your commitment to academic excellence! We have 130 RoboPlay Challenge teams, 82 teams in Davis and 48 teams in Orange County. In addition, we have about 40 video competition submissions. I would like to thank all of our participants for their hard work, including the C-STEM teachers and students, volunteers, sponsors, and C-STEM staff.

Best of luck during the competition!

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

# Organized by





# C-STEM Day Schedule - May 20, 2017

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	<ul> <li>Awards Ceremony:</li> <li>C-STEM Awards of Achievement</li> <li>GIRL's Leadership Award</li> <li>C-STEM Awards of Excellence</li> <li>C-STEM Scholarship</li> <li>RoboPlay Video Competition Winners</li> <li>RoboPlay Challenge Competition Winners</li> </ul>

# **Contact Information**

C-STEM Center Director:	C-STEM Program Manager UC Davis Site:	C-STEM Regional Coordinator Orange County Site:
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# COMMITTEES

## **C-STEM Day Volunteer Leadership**

RoboPlay Chief Judge: **Rex Schrader** Assistant Coordinator for C-STEM Day: **Stephanie Thai** Assistant to RoboPlay Chief Judge: **Emma Kristovich** 

## Davis, CA

Regional Chair: Jennifer Mullin Regional Co-Chair: Zane Miller Head Judge: Rex Schrader Deputy Head Judge: Roger Nattkemper

#### C-STEM Challenge Task Development Team

Sean Comick June Gill Frank Guan Emma Kristovich Tomonobu Nagaoka Naomi Okiddy Peyton Strait Stephanie Thai

## Advisors for C-STEM Challenge Task Creation Team

Rex Schrader Roger Nattkemper Dan Hull Zane Miller

## Irvine, CA

Regional Chair: Merry Kim Regional Co-Chair: Tiffany Nguyen Head Judge: Chris Harrington Deputy Head Judge: Len Pettis

## C-STEM Challenge Task Testing Team

Yage Hu Felix Le Kaelan Mikowicz Chandni Nagda Michele Shi Adam Zufall

# **OVERVIEW**

## **General Rules**

- 1. You have 10 challenges to do in any order you like. Successful completion of each challenge earns your team points. The goal is to get as many points as possible.
- 2. Teams may bring as many laptops as they have students to the competition and keep them in their practice area (pit).
- 3. Only one laptop may be used at the competition table.
- 4. Use of other electronics during the competition, including other computers, calculators, cell phones, and other computing devices is not allowed.
- 5. Teams cannot use custom-made parts.
- 6. All challenge tasks must be completed using a computer program (no TiltDrive or CopyCat). Programs for controlling the robots must be written in Ch running in ChIDE from SoftIntegration, Inc.
- 7. There will be no internet access during the competition. If a team is caught using the internet during the competition, the team will be disqualified.
- 8. Once the competition has begun, the teams may speak to the Judges or support team for clarification on problems, but should not talk to anyone else outside of their team.

# **Competition Zone Rules**

## Competition Information

- 1. You are given three 17-minute competition periods to compete on the official board between 12:45pm and 3:45pm. (17 minute periods can be found on the RoboPlay Competition schedule page.)
- 2. In between each team's run, there will be a 3 minute passing period.
- 3. No robots may be run on the competition board during the 3 minute passing period.
- 4. Any challenge that is on-going when your 17 minute period ends will be immediately stopped and points will be calculated.
- 5. You are allowed to attempt each challenge as many times as you like within the allotted competition time.
- 6. If you attempt a challenge multiple times, only the points from the highest scoring run will be kept.
- 7. Challenges may not be "chained together" meaning you cannot do two challenges simultaneously with the same program.
- 8. Teams are responsible for setting up the board for each run of each challenge.
- 9. Teams may not use more than 4 I-bots and 1 L-bot simultaneously. Plus a LinkBot-I, LinkBot-L or dongle for wireless connectivity.

## Practice Information

- 1. All teams will be provided a designated practice area (pit) to place their practice board.
- 2. You are given two 17-minute practice periods to practice on the official board between 10am and noon. (17 minute periods can be found on the RoboPlay Competition schedule.)
- 3. Each 17 minute period starts and ends when specified in the schedule. You will not be given 17 minutes from when you arrive. Please be prompt.

## Challenge Scoring

- 1. You are allowed to attempt each challenge as many times as you like within the allotted competition time. All scores will be recorded, but only the highest is used.
- 2. Only one challenge may be run on the challenge board at a given time.
- 3. Challenges may not be "chained together" meaning you cannot be scored for two challenges at the same time.
- 4. 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 tiebreaker, with the lowest number of attempts winning the tie.
- 5. Any challenge that is on-going when your 17 minute period ends will be immediately stopped and points will be calculated.
- 6. You may abort a run at any time by touching a robot or calling "abort". Aborted runs still count as attempts, and score zero points.
- 7. If your program is still executing but no penalty points are possible you may ask the judge for a "partial call" in order to abort the run and still receive partial points. The judge must agree to the "partial call" before touching any robots or the run will be scored as an "abort".
- 8. At the end of each run your judge will show you your run number and run score prior to submission. If you wish to contest the score for that run, you must call for a Head Judge at that time.
- 9. You are encouraged to keep a record of your challenge scores in the space provided at the bottom of each challenge.
- 10. Once you start your program then enter any random numbers, you may not interact with your computer. Interacting with your computer will count as an "abort".

## **Reminders for Students**

General

- Measure everything with a measuring tape. Don't trust the given dimensions to be completely accurate.
- Read how assignments are scored to figure out the best strategy to get points.
- Ask questions if you are unclear about something.

## Assigned Boards

- These will be the boards you will practice on and compete on.
- Make sure you know where your assigned board is at all times.
- Refer to diagram given or ask someone.

## Practice/Competition Times

- 17 minute practice/competition times will be marked by a whistle being blown.
- Arrive 5 minutes early for your allotted practice/competition time and stand in the designated waiting area.
- Refer to the schedule brochure or nametag if you don't know when your practice/competition times are.
- Keep your nametag on at all times. You will need it to gain access to the board during your 17 minute period as well as to your pit area.

## Random Numbers

- Many challenges have random numbers you will need to input into your program at the start of each run.
- You must use the scanf() function to read random numbers into your program.
- Random numbers will change at the start of every run. Your Table Judge will hold up and say the relevant numbers for each run.
- You may enter your random numbers only after pressing Run. Step away from the computer after entering your numbers.
- You may not strategically abort your challenge to get "better" random numbers. If your judge feels that you are aborting to get better numbers, you may be banned from attempting that challenge for the remainder of the current competition period.

## **Definitions and Common Terms**

## Location

Point ("at/on point N"):

Single Bot - Bot covers the dot

Bot Configuration - Bot Configuration covers the dot

House ("at/on house X"):

Single Bot - Bot covers the dot on the house

Bot Configuration - Bot Configuration covers the dot on the house

Road ("on a road/street"):

Single Bot - Wheels do not cross the centerline of the road except for turns

Bot Configuration - Center of Bot Configuration remains inside boundary of road Near a House:

An object or Bot is near a house if a block placed between the object and the house graphic touches the Bot and the house graphic.

Time:

Immediately/Same Time:

An action happens "immediately" after or "at the same time" as another action if their difference in finishing time is less than or equal to 1 second.

## **Tips and Tricks**

- Illustrations don't necessarily show the best configuration or path for a robot to complete a challenge.
- Use accessories or create multi-bot configurations unless specifically limited by the challenge text.
- Don't be afraid to try something "crazy". If it's crazy and it works ... it's not crazy.
- If the whole challenge is too hard, go for partial points.

## Sample scanf() code

 Read a single integer into a variable Example Code:

int distance; scanf("%d", &distance); Example Input: 10 

SCHOOL	TEACHER	TEAM NAME	BOARD & PIT	PRACTICE TIMES	COMP TIMES
Albert Einstein Middle	Kimberly Stowell	TEAM NAME	D1- A/19	10:00 - 10:17 11:00 - 11:17	12:45 – 1:02 2:25 – 2:42 3:25 – 3:42
Albert Einstein Middle	Kimberly Stowell	Einstein	D1- A/16	10:20 – 10:37 11:20 – 11:37	1:05 – 1:22 1:45 – 2:02 3:05 – 3:22
Albert Einstein Middle	Mark Lyon	Toaster Bots	D1- A/17	10:40 – 10:57 11:40 – 11:57	1:25 - 1:42 2:05 - 2:22 2:45 - 3:02
Albert Einstein Middle	Mark Lyon	BELTS	D1- B/18	10:00 - 10:17 11:00 - 11:17	12:45 – 1:02 2:25 – 2:42 3:25 – 3:42
American Canyon Middle	Tammy Lee	yahboi.ch	D1- B/47	10:20 – 10:37 11:20 – 11:37	1:05 – 1:22 1:45 – 2:02 3:05 – 3:22
American Canyon Middle	Tammy Lee	DATA DAMES	D1- B/48	10:40 – 10:57 11:40 – 11:57	1:25 - 1:42 2:05 - 2:22 2:45 - 3:02
American Canyon Middle	Tammy Lee	WIGGLES 2.0	D1- C/49	10:00 - 10:17 11:00 - 11:17	12:45 - 1:02 2:25 - 2:42 3:25 - 3:42
American Canyon Middle	Sabrina Lui	THE SPINNERS	D1- C/50	10:20 - 10:37 11:20 - 11:37	1:05 – 1:22 1:45 – 2:02 3:05 – 3:22
American Canyon Middle	Sabrina Lui	JACK IN THE BOTS	D1- C/51	10:40 – 10:57 11:40 – 11:57	1:25 - 1:42 2:05 - 2:22 2:45 - 3:02
American Canyon Middle	Ana Castro	PROGRAMMING PEGASI	D1- D/52	10:00 - 10:17 11:00 - 11:17	12:45 – 1:02 2:25 – 2:42 3:25 – 3:42
American Canyon Middle	Ana Castro	Syntax errors	D1- D/55	10:20 – 10:37 11:20 – 11:37	1:05 – 1:22 1:45 – 2:02 3:05 – 3:22
Bridgeway Island Elementary	Megan Schoellhamer	Schoellhamer 1	D1- D/13	10:40 – 10:57 11:40 – 11:57	1:25 - 1:42 2:05 - 2:22 2:45 - 3:02
Bridgeway Island Elementary	Megan Schoellhamer	Schoellhamer 2	D1- E/14	10:00 - 10:17 11:00 - 11:17	12:45 – 1:02 2:25 – 2:42 3:25 – 3:42

SCHOOL	TEACHER	TEAM NAME	BOARD & PIT	PRACTICE TIMES	COMP TIMES
Bridgeway Island Elementary	Jason Clyma	Clyma 1	D1- E/10	10:20 – 10:37 11:20 - 11:37	1:05 - 1:22 1:45 - 2:02 3:05 - 3:22
Bridgeway Island Elementary	Jason Clyma	Clyma 2	D1- E/11	10:40 – 10:57 11:40 – 11:57	1:25 - 1:42 2:05 - 2:22 2:45 - 3:02
California Middle	Maria Aguilar	Jasper A	D1- F/56	10:00 - 10:17 11:00 - 11:17	12:45 – 1:02 2:25 – 2:42 3:25 – 3:42
California Middle	Maria Aguilar	Jasper B	D1- F/57	10:20 – 10:37 11:20 - 11:37	1:05 – 1:22 1:45 – 2:02 3:05 – 3:22
California Middle	Sandia Gilliam	Jasper C	D1- F/58	10:40 – 10:57 11:40 – 11:57	1:25 – 1:42 2:05 – 2:22 2:45 – 3:02
Cambridge Elementary	Sandra Alarcon-Soto	Cougars Rock!	D1- G/59	10:00 - 10:17 11:00 - 11:17	12:45 – 1:02 2:25 – 2:42 3:25 – 3:42
Cambridge Elementary	Sandra Alarcon-Soto	Cambridge Warriors	D1- G/60	10:20 – 10:37 11:20 - 11:37	1:05 – 1:22 1:45 – 2:02 3:05 – 3:22
Cambridge Elementary	Sandra Alarcon-Soto	Cambridge Coders	D1- G/61	10:40 – 10:57 11:40 – 11:57	1:25 – 1:42 2:05 – 2:22 2:45 – 3:02
Cave Language Academy	Lorena Hernandez	Aparecium	D1- H/53	10:00 - 10:17 11:00 - 11:17	12:45 – 1:02 2:25 – 2:42 3:25 – 3:42
Cave Language Academy	Lorena Hernandez	Cookie Coders	D1- H/54	10:20 – 10:37 11:20 - 11:37	1:05 – 1:22 1:45 – 2:02 3:05 – 3:22
Esparto K-8	Spencer Krautkraemer	Esparto Middle School 7th Grade	D1- H/15	10:40 – 10:57 11:40 – 11:57	1:25 – 1:42 2:05 – 2:22 2:45 – 3:02
Esparto K-8	Spencer Krautkraemer	Esparto Middle School 8th Grade	D1- I/12	10:00 - 10:17 11:00 - 11:17	12:45 – 1:02 2:25 – 2:42 3:25 – 3:42
Foothill Middle	Margaret Elliott	Two Horned Unicorns	D1- I/7	10:20 - 10:37 11:20 - 11:37	1:05 – 1:22 1:45 – 2:02 3:05 – 3:22

SCHOOL	TEACHER	TEAM NAME	BOARD & PIT	PRACTICE TIMES	COMP TIMES
Foothill Middle	Margaret Elliott	The Missing Chromosomes	D1- I/8	10:40 – 10:57 11:40 – 11:57	1:25 – 1:42 2:05 – 2:22 2:45 – 3:02
Foothill Middle	Dalila Neves	Parental Guidance Recommended	D1- J/9	10:00 - 10:17 11:00 - 11:17	12:45 – 1:02 2:25 – 2:42 3:25 – 3:42
Foothill Middle	Dalila Neves	4TW	D1- J/4	10:20 - 10:37 11:20 - 11:37	1:05 - 1:22 1:45 - 2:02 3:05 - 3:22
Pine Grove Elementary STEM Magnet	Timothy Keys	Pine Grove STEM Robot Crew	D1- J/3	10:40 – 10:57 11:40 – 11:57	1:25 - 1:42 2:05 - 2:22 2:45 - 3:02
George A. Buljan Middle	Lisa Seals	BMS Bot Smashers	D1- K/62	10:00 - 10:17 11:00 - 11:17	12:45 – 1:02 2:25 – 2:42 3:25 – 3:42
George A. Buljan Middle	Lisa Seals	BMS DedSec	D1- K/63	10:20 - 10:37 11:20 - 11:37	1:05 – 1:22 1:45 – 2:02 3:05 – 3:22
Glen Cove	Imelda Enos	Glen Cove Coders	D1- K/6	10:40 – 10:57 11:40 – 11:57	1:25 - 1:42 2:05 - 2:22 2:45 - 3:02
Golden West Middle	Jennifer Pirondini	Robo Cows	D1- L/64	10:00 - 10:17 11:00 - 11:17	12:45 – 1:02 2:25 – 2:42 3:25 – 3:42
Golden West Middle	Jennifer Pirondini	skrt^2	D1- L/65	10:20 – 10:37 11:20 – 11:37	1:05 – 1:22 1:45 – 2:02 3:05 – 3:22
Golden West Middle	Ricki Carpenter	TH3 PROTOTYP3 PROD1GY HACK3R5	D1- L/66	10:40 – 10:57 11:40 – 11:57	1:25 - 1:42 2:05 - 2:22 2:45 - 3:02
Golden West Middle	Ricki Carpenter	All Of The Above	D1- M/67	10:00 - 10:17 11:00 - 11:17	12:45 – 1:02 2:25 – 2:42 3:25 – 3:42
Green Valley Middle	Tom Vohs	Team Robo	D1- M/1	10:20 – 10:37 11:20 – 11:37	1:05 - 1:22 1:45 - 2:02 3:05 - 3:22
Green Valley Middle	Tom Vohs	Team Linkbot	D1- M/2	10:40 - 10:57 11:40 - 11:57	1:25 - 1:42 2:05 - 2:22 2:45 - 3:02

SCHOOL	TEACHER	TEAM NAME	BOARD & PIT	PRACTICE TIMES	COMP TIMES
Hogan Middle School	Eric Andal	RoboSpartans	D1- N/75	10:00 - 10:17 11:00 - 11:17	12:45 – 1:02 2:25 – 2:42 3:25 – 3:42
Hogan Middle School	Eric Andal	Spartan Robotics	D1- N/74	10:20 – 10:37 11:20 – 11:37	1:05 – 1:22 1:45 – 2:02 3:05 – 3:22
Hogan Middle School	Eric Andal	Franklin Middle School Illuminating Panthers	D1- N/76	10:40 – 10:57 11:40 – 11:57	1:25 - 1:42 2:05 - 2:22 2:45 - 3:02
Hogan Middle School	Greg Murray	NeoSpartans	D1- 0/71	10:00 - 10:17 11:00 - 11:17	12:45 – 1:02 2:25 – 2:42 3:25 – 3:42
Mountain Vista Middle	Cheryl Mostin	MVMS Robuddies	D1- O/82	10:20 – 10:37 11:20 – 11:37	1:05 – 1:22 1:45 – 2:02 3:05 – 3:22
Mountain Vista Middle	Cheryl Mostin	MVMS Robos	D1- O/81	10:40 – 10:57 11:40 – 11:57	1:25 - 1:42 2:05 - 2:22 2:45 - 3:02
Roosevelt Middle	Zelda Allison	Roosevelt Bulldogs	D1- P/79	10:00 - 10:17 11:00 - 11:17	12:45 – 1:02 2:25 – 2:42 3:25 – 3:42
Seven Hills Intermediate	Paul Gross	Raider Robotics	D1- P/78	10:20 – 10:37 11:20 – 11:37	1:05 – 1:22 1:45 – 2:02 3:05 – 3:22
Solano Middle School	Amanda Gunnell	Mighty Teen Titans	D1- P/77	10:40 – 10:57 11:40 – 11:57	1:25 - 1:42 2:05 - 2:22 2:45 - 3:02
St. Catherine of Siena	Anne Healy	Stars	D1- Q/80	10:00 - 10:17 11:00 - 11:17	12:45 – 1:02 2:25 – 2:42 3:25 – 3:42
T. R. Smedberg Middle	Francesca Reinhard	Wolverine Pack	D1- Q/5	10:20 – 10:37 11:20 – 11:37	1:05 – 1:22 1:45 – 2:02 3:05 – 3:22
Travis Elementary	Shawna O'Hara	Code-Blooded	D1- Q/73	10:40 – 10:57 11:40 – 11:57	1:25 - 1:42 2:05 - 2:22 2:45 - 3:02
Travis Elementary	Shawna O'Hara	Oh Gee Coders	D1- R/72	10:00 - 10:17 11:00 - 11:17	12:45 – 1:02 2:25 – 2:42 3:25 – 3:42

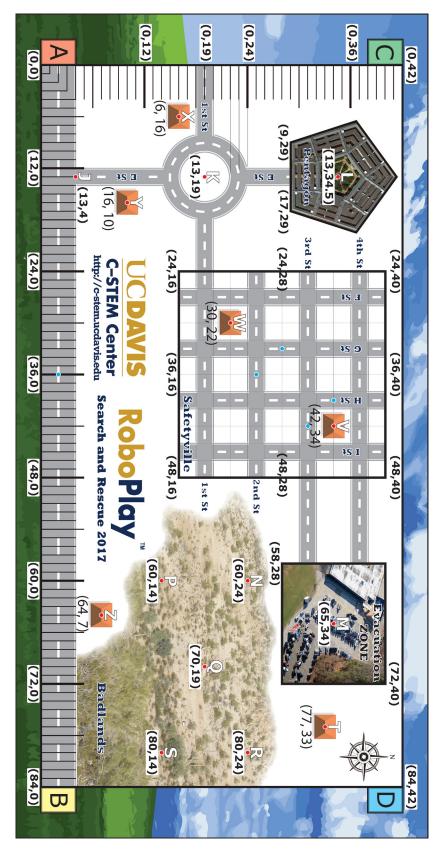
SCHOOL	TEACHER	TEAM NAME	BOARD & PIT	PRACTICE TIMES	COMP TIMES
Valley View Middle	Tim Finnegan	Valley View Challengers	D1- R/68	10:20 – 10:37 11:20 – 11:37	1:05 – 1:22 1:45 – 2:02 3:05 – 3:22
Valley View Middle	Tim Finnegan	Valley View Jaguars	D1- R/69	10:40 - 10:57 11:40 - 11:57	1:25 – 1:42 2:05 – 2:22 2:45 – 3:02
Wardlaw Elementary	Mikey Ramot	Wardlaw Wednesday Coders	D1- S/70	10:00 - 10:17 11:00 - 11:17	12:45 – 1:02 2:25 – 2:42 3:25 – 3:42

SCHOOL	TEACHER	TEAM NAME	BOARD & PIT	PRACTICE TIMES	COMP TIMES
American Canyon High	Alma Gonzalez	Take an L "Bot"	D2- A/41	10:00 - 10:17 11:00 - 11:17	12:45 – 1:02 2:25 – 2:42 3:25 – 3:42
Angelo Rodriguez High	Jennylyn Sterling	Raviolioli	D2- A/22	10:20 – 10:37 11:20 – 11:37	1:05 – 1:22 1:45 – 2:02 3:05 – 3:22
Franklin High	Paul Akuna	Dongle	D2- A/33	10:40 – 10:57 11:40 – 11:57	1:25 – 1:42 2:05 – 2:22 2:45 – 3:02
Luther Burbank High	Clay Dagler	Yo Code	D2- B/20	10:00 - 10:17 11:00 - 11:17	12:45 – 1:02 2:25 – 2:42 3:25 – 3:42
Manteca High	Doug Obrigawitch	Insert Team Name Here	D2- B/26	10:20 – 10:37 11:20 – 11:37	1:05 – 1:22 1:45 – 2:02 3:05 – 3:22
Piner High	Zachary Alexander	Robo Prospectors	D2- B/27	10:40 - 10:57 11:40 - 11:57	1:25 – 1:42 2:05 – 2:22 2:45 – 3:02

SCHOOL	TEACHER	TEAM NAME	BOARD & PIT	PRACTICE TIMES	COMP TIMES
American Canyon High	Scott Marsden	Coding State Warriors	D3- A/42	10:00 - 10:17 11:00 - 11:17	12:45 – 1:02 2:25 – 2:42 3:25 – 3:42
American Canyon High	Scott Marsden	Pseudo-Code Squad	D3- A/43	10:20 – 10:37 11:20 – 11:37	1:05 - 1:22 1:45 - 2:02 3:05 - 3:22
American Canyon High	Stefani Williams	Girls Can Too	D3- A/46	10:40 – 10:57 11:40 – 11:57	1:25 – 1:42 2:05 – 2:22 2:45 – 3:02
American Canyon High	Ronald Eick	ZHEN BANG	D3- B/45	10:00 - 10:17 11:00 - 11:17	12:45 – 1:02 2:25 – 2:42 3:25 – 3:42
American Canyon High	Alma Gonzalez	WOLV35	D3- B/44	10:20 – 10:37 11:20 – 11:37	1:05 – 1:22 1:45 – 2:02 3:05 – 3:22
Angelo Rodriguez High	Sarah Melanephy	Top-Ramen	D3- B/23	10:40 – 10:57 11:40 – 11:57	1:25 - 1:42 2:05 - 2:22 2:45 - 3:02
Angelo Rodriguez High	Sarah Melanephy	Cup-A-Noodles	D3- C/24	10:00 - 10:17 11:00 - 11:17	12:45 – 1:02 2:25 – 2:42 3:25 – 3:42
College Park HS	Shawna Kubiak	EWA1 - College Park High School Robotics	D3- C/35	10:20 - 10:37 11:20 - 11:37	1:05 – 1:22 1:45 – 2:02 3:05 – 3:22
College Park HS	Shawna Kubiak	EWA2 - College Park High School Robotics	D3- C/36	10:40 – 10:57 11:40 – 11:57	1:25 – 1:42 2:05 – 2:22 2:45 – 3:02
Dinuba High	Terry Bese	Blue Screens	D3- D/32	10:00 - 10:17 11:00 - 11:17	12:45 – 1:02 2:25 – 2:42 3:25 – 3:42
Dinuba High	Terry Bese	ATOM	D3- D/31	10:20 – 10:37 11:20 – 11:37	1:05 – 1:22 1:45 – 2:02 3:05 – 3:22
Franklin High	Paul Akuna	akuna matata	D3- D/34	10:40 – 10:57 11:40 – 11:57	1:25 – 1:42 2:05 – 2:22 2:45 – 3:02
Franklin High	Paul Akuna	We're In	D3- E/37	10:00 - 10:17 11:00 - 11:17	12:45 – 1:02 2:25 – 2:42 3:25 – 3:42

SCHOOL	TEACHER	TEAM NAME	BOARD & PIT	PRACTICE TIMES	COMP TIMES
Livermore High	Susan Johnston	Robozos	D3- E/30	10:20 – 10:37 11:20 – 11:37	1:05 – 1:22 1:45 – 2:02 3:05 – 3:22
Livermore High	Susan Johnston	Cowboy Code Academy	D3- E/29	10:40 - 10:57 11:40 - 11:57	1:25 – 1:42 2:05 – 2:22 2:45 – 3:02
Luther Burbank High	Clay Dagler	Code Laggers	D3- F/21	10:00 - 10:17 11:00 - 11:17	12:45 – 1:02 2:25 – 2:42 3:25 – 3:42
Manteca High	Doug Obrigawitch	Tek No Logic	D3- F/25	10:20 – 10:37 11:20 – 11:37	1:05 – 1:22 1:45 – 2:02 3:05 – 3:22
Piner High	Zachary Alexander	Pi-Nerds	D3- F/28	10:40 - 10:57 11:40 - 11:57	1:25 - 1:42 2:05 - 2:22 2:45 - 3:02
River City High	Judy Tan	2 Little LAM	D3- G/38	10:00 - 10:17 11:00 - 11:17	12:45 – 1:02 2:25 – 2:42 3:25 – 3:42
River City High	Judy Tan	Kill-A-Bytes	D3- G/39	10:20 - 10:37 11:20 - 11:37	1:05 – 1:22 1:45 – 2:02 3:05 – 3:22
River City High	Dubarrie Fagout	Tech-No-Logic	D3- G/40	10:40 - 10:57 11:40 - 11:57	1:25 – 1:42 2:05 – 2:22 2:45 – 3:02

# **CHALLENGE BOARD**



# **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 C-STEM Day 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.

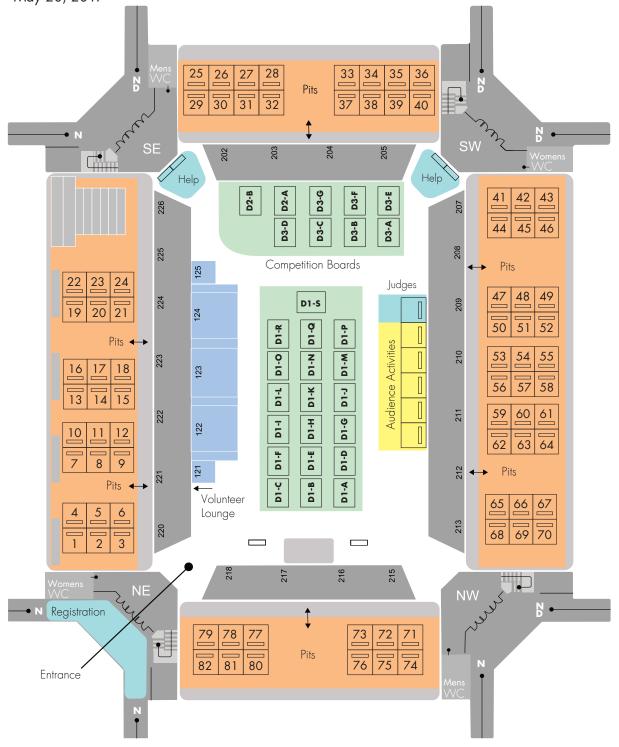
## Talk to others about C-STEM:

Help bring C-STEM programming to your local school and district! If you liked what you saw at C-STEM Day, and would like to see it in your child's local school and district, contact Harry Cheng, C-STEM Center Director, (530) 752-9082, hhcheng@ucdavis.edu. It also helps to talk to your teachers and principals at your schools and help us connect with them!

# FLOOR PLAN

#### **Pavilion - Upper Level**

**C-STEM Day** May 20, 2017







Information Communications Technologies & Digital Media Sector Navigation Team

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