



UPDATED

2020 4-H FIELD DAY

VIRTUAL ROBOTICS COMPETITION

REVISED 3-30-2020

EVENT INFORMATION

- Date: Saturday, May 30, 2020
- Time: 11:00 am – 1:00 pm
- Meeting Place: Virtual via ZOOM link below.

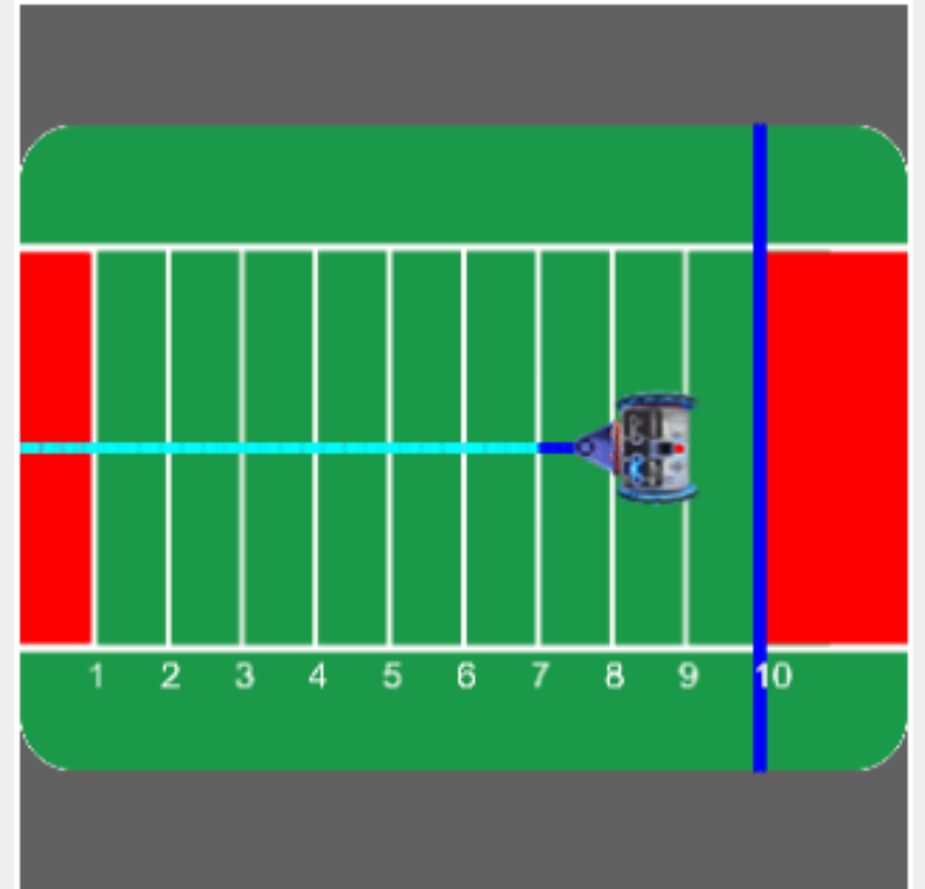
Join Zoom Meeting: <https://calpoly.zoom.us/j/476523887>

Dial by phone for audio: +1-669-900-6833 US

Meeting ID: 476 523 887

SCHEDULE OF EVENTS

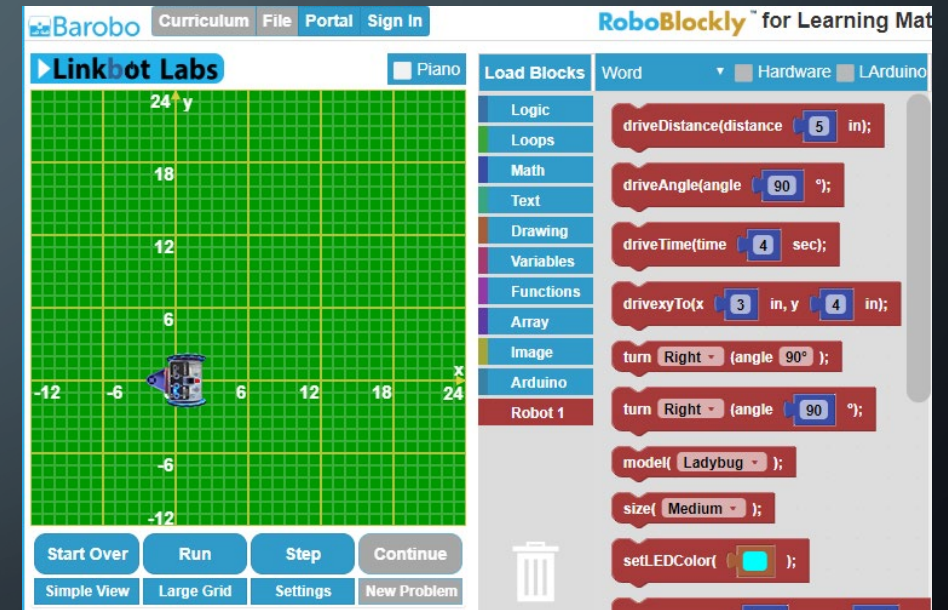
- 11:00 – 11:15 am: Check-in using the Zoom link <https://calpoly.zoom.us/j/476523887>
- 11:15 am – 1:00 pm: Each contestant will demonstrate their [RoboBlockly](#) code and virtual robot task.



RoboBlockly

ROBOBLOCKLY INFORMATION

- All participants will use RoboBlockly, a virtual robot, to complete the required task.
- RoboBlockly is a virtual environment which allows users manipulate a robot virtually.
- RoboBlockly can be accessed here:
<https://roboblockly.com/>
- RoboBlockly tutorials can be found here:
<https://www.roboblockly.org/tutorial.php>



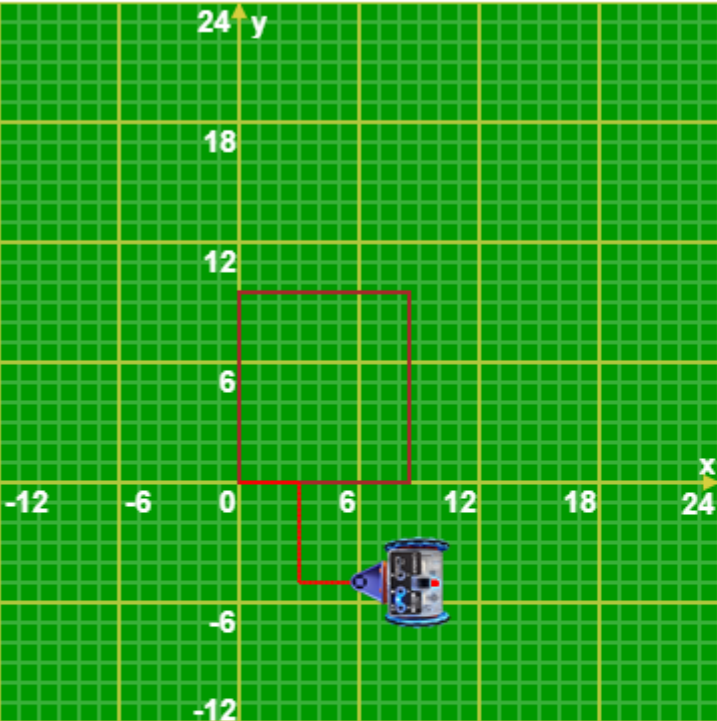
PLAYING FIELD

COMMAND MENU

YOUR GRAPHICAL CODE

Barobo Curriculum File Portal Sign In RoboBlockly™ for Learning Math and Coding Home S

▶ Linkbot Labs Piano



Start Over Reset Step Continue
Simple View Large Grid Settings New Problem

Labels: x-axis y-axis Show Grid
Grid: 12x12 inches 24x24 inches 36x36 inches
 72x72 inches 96x96 inches 192x192 inches
Quad: 4 Quadrants 1 Quadrant 1&4 Quadrants
Units: US Customary Metric

Load Blocks

- Logic
- Loops
- Math
- Text
- Drawing
- Variables
- Functions
- Array
- Image
- Arduino
- Robot 1

Time: 00:06:729

Load Board Edit Board Merge Board

Workspace

```
line style —
delay 0.03 seconds
grid On
label x axis text “ ”
line x1 0 y1 0 x2 6
point x 5 y 6
circle x 0 y 0 radius 1
rectangle x 0 y 0 width 8.5 height 9.5 round
triangle x1 -6 y1 0 x2 0
```

```
stroke width 2
stroke color
driveDistance(distance 3 in);
turn Right (angle 90 °);
driveDistance(distance 5 in);
turn Left (angle 90° );
driveDistance(distance 5 in);
rectangle x 0 y 0 width 8.5 height 9.5 round
```

COMPETITION INFORMATION

- Three Levels of Competition
 - Level 1 – Obstacle Course
 - Level 2 – The Clover Artist
 - Level 3 – Creative Challenge: Synchronized Robot Dance Routine
- You can do some or all of the three competitions. It's up to you!
- 4-Hers will receive certificate for each completed competition level.
- Only 4-Hers who complete all three levels will receive a pin.

LEVEL 2: THE CLOVER ARTIST

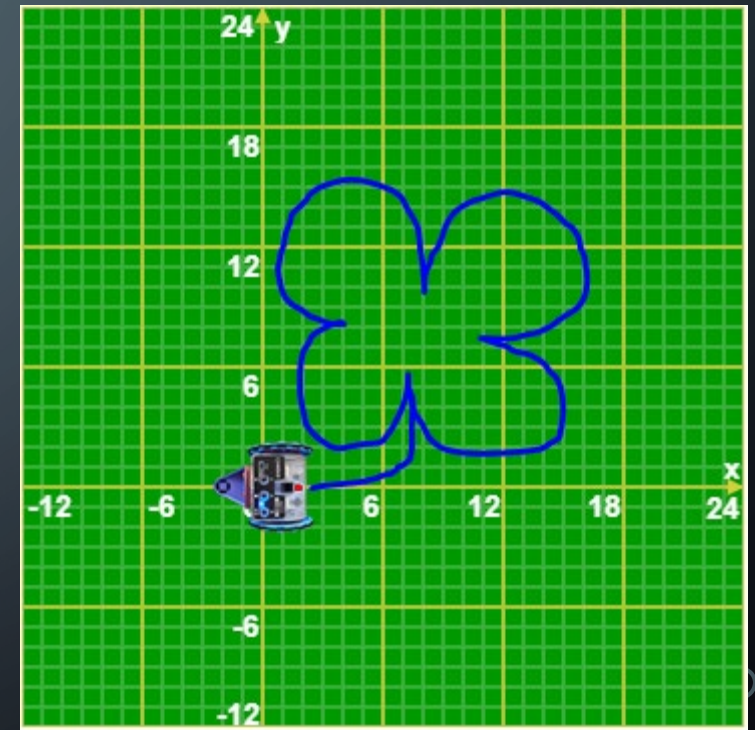


- **Instructions:**

- Draw a 4-H clover that fits inside a 18 inch by 18 inch square.
- Write the name of your county below the clover.

- **Judging Criteria:** (out of 100 pts)

- Keeping inside 18 inch X 18 inch square – **30 pts**
- The accuracy of the clover – **40 pts**
- Writing the name of your county – **30 pts**
- Bonus points! Put “H”s in your clover leaves – **2.5 pts per “H”**



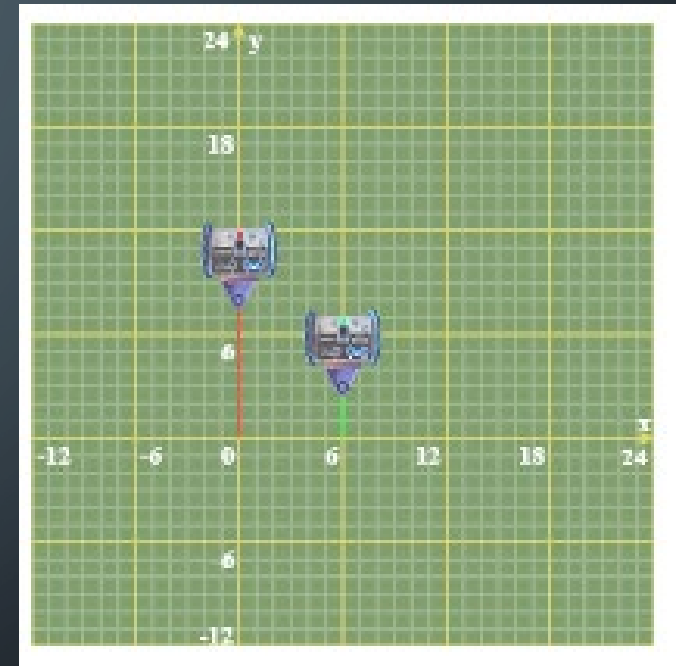
LEVEL 3: CREATIVE CHALLENGE – SYNCHRONIZED ROBOT DANCE ROUTINE

- **Instructions:**

- You can use as many virtual robots as you like.
- You can choose your background music and background decoration.
- Create a synchronized robot dance routine that will amaze and entertain the group.

- **Judging Criteria:** (out of 100 pts)

- The routine should last less than two minutes and use one of the resident music files. (yes/no) - **50 pts**
- Coordination of the music and the motion is a key judging element. – **40 pts** (from the judges)
- Audience reaction among the video conference participants will also be part of the judging – **10 pts** (from the audience)



QUESTIONS?

- Contact the competition organizers with any questions:
 - **Dagmar Derickson**
 - dagmar_derickson@yahoo.com
 - 805-712-9178
 - **Dennis Derickson**
 - ddericks@calpoly.edu
 - 805-712-9168

**MOST IMPORTANTLY - HAVE FUN!!!!
SEE YOU 5/30/2020**