



2018 RoboParade Theme: **We Are Ohana**

Announcing Hawai'i RoboParade's second season at the 11<sup>th</sup> annual Hawai'i Robofest Regional Tournament on Saturday, April 7<sup>th</sup>, 2018, at Pearl City High School!

RoboParade is a great STEAM (i.e. science, technology, engineering, art and math) learning opportunity for students. The 3<sup>rd</sup> Annual Hawai'i RoboParade features robot floats, designed, built and programmed by students. Attendees will be able to see fully autonomous robot floats that are programmed to follow a parade route without human assistance.

**WHAT:** 3<sup>rd</sup> Annual Hawai'i RoboParade

**WHEN:** Saturday, April 7, 2018 (Pearl City High School Cafeteria)

**TIME:** 9:00 a.m.-12:00 p.m.

RoboTest: 9:00 a.m.-10:15 a.m. (Upon qualification, one student will report back at 10:25 a.m. to their assigned robot on the parade track)

Official Parade begins at 10:30 a.m.

#### PURPOSE:

- To provide opportunities for students to express creativity, innovation and build high interest and engagement for STEAM. Basically-Have FUN! FUN! FUN! This is a NON-COMPETITIVE activity. Thus, each qualified team will receive a Certificate of Participation
- Promote positive sportsmanship as an individual, team and school

#### TEAM REGISTRATION & QUALIFICATION:

- There is no limit on the number of RoboFloats schools may enter. The entries will be on a first-come, first-to-complete-forms basis. There will be a maximum of 40 RoboFloat entries allowed in this activity, so please register early!
- School registration is in two phases:
  - Phase I: Schools must send information and payment to HI FUSIONED
  - Phase II: Schools must post team information, students' names, volunteers' names on the national website online at [www.robofest.net](http://www.robofest.net). (Please refer to Team Info sheets for details.)
- A school may have a minimum of 2 and up to 5 team members per RoboFloat (entry)
- Students in grades 4-12 may participate
- The registration fee is \$50.00 (\$30.00 national and \$20.00 local fees) per RoboFloat. Each coach must submit all signed Robofest Consent and Release Forms for all team members at the Registration Desk at the Regional (April 7<sup>th</sup>)
- Each team must qualify in the TEST PARADE (RoboTest) to ensure that all robots vehicles meet the specifications and functional requirements on the actual parade route. RoboTest date/time: Saturday, April 7, 2018 from 9:00 a.m.-10:15 a.m.
- If the team's robot qualifies, a team member will be given a flag. The team member will place the ID flag on the robot, which allows the robot to participate in the official parade
- Once the flag is secured, one selected STUDENT on each qualified team will be issued a special name tag/number and may place their RoboFloat (entry) on the parade track.
- Once the robot is secured on the track, the robot will remain in place until the parade begins. There will be no removal to recharge batteries, fix floats, etc.

- Student will be responsible to place the robot in the off position until the parade begins
- At the assigned time (10:25 a.m.), an announcement will be made and the selected team member will return to the parade track
- At 10:30 a.m., the Emcee will say, “Turn on your robots (wait 5 seconds),” then, “On your mark, get set, go.” All assigned students will press the “go” button on their robots
- The RoboFloats will parade around the track for approximately 20 minutes
- Once the parade ends, all robots will be placed back on the track for voting purposes
  - People’s Choice Award (public popularity vote, ballots available at Registration Desk)
  - One ballot will be provided per a person
  - Voting will take place from 10:30 a.m.-11:30 a.m.
- NOTE: If a RoboFloat hits/runs into another RoboFloat, the float that initiated the hit will be pulled from the track. All other robots impacted will re-align and place their floats back on the track
- After the parade has ended, all concerns shall be brought up to the RoboParade Chairperson.
  - At no time shall the parents, coaches, and/or students approach any of the RoboParade members/volunteers with issues or concerns
  - RoboParade Chair will take the appropriate and necessary action thereafter.

## **ROBOT TECHNICAL REQUIREMENTS**

You may access the 2018 RoboParade rules on the national website: [www.robofest.net](http://www.robofest.net) (click on the RoboParade logo on the left even though it says “closed”)

- Platform (robot type): Any – as long as it is fully autonomous (no remote controls allowed)
- Number of robot controllers, sensors, or motors: unlimited
- Each robot may have its own sponsor logos
- Each robot is required to carry the small numbered flag given upon RoboTest qualification
- There is no limitation on the height and weight of each RoboFloat
  - Width: Should be no larger than 35 cm
  - Length: If longer than 35 cm, it must have train like flexible bending structures
- The rear of the RoboFloat must have a flat bumper at least 2.5 inches tall and 5 inches wide and be 1 inch off the ground to allow the robot behind to sense your RoboFloat

PROGRAMMING Requirements:

- Robots must have a reliable program that can follow a black line on a bright surface
- Robots must have the ability to detect the vehicle in front of it and stop, then automatically re-start when the vehicle in front has cleared
- Wireless interaction between the robot and the team players using sound, ultrasonic, or light sensors are encouraged
- Robot speed must be between 9cm/second and 18 cm/second. The robot must display the current speed. Recommended display interval is 1 second

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