

MILILANI HIGH SCHOOL FIRST ROBOTICS

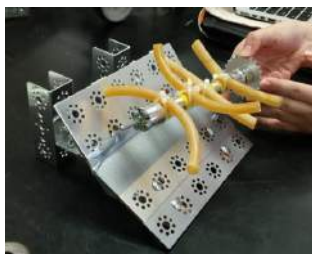
A SCIENCE LEARNING CENTER PROGRAM



FIRST Tech Challenge Begins!

It has been three years since Hawaii has held its first FIRST Tech Challenge tournament and Mililani has been participating in FTC since its inception. We continue to compete in FTC as it offers a good training grounds for the FIRST Robotics Competition build season. The FTC build season began with the game reveal on Saturday, September 12, 2015 at Punahou School, where we got to find out what this year's game would be and also get a look at the playing field. Following the game reveal is a twelve week long building period where the team will work together to brainstorm, prototype, and build a robot that will accomplish their strategy.

After a thorough reading of the game manual, we decided to go with the strategy of placing climbers in the shelter and parking in the floor goal during autonomous, scoring on the floor goal by retrieving debris and releasing the low zone zip line climber during driver control, and parking on the mountain mid-zone during the end game. Currently we are in the prototyping phase of the design and there is two different types of retrieval designs that are being made to test. The Angled Box Retrieval makes use of a box set at an angle to hold debris while using a roller intake to retrieve and release the debris into the floor goal. The Scoop and Poop design makes use of a conveyor belt to gather the debris and a servo which will direct the debris to the designated side.



Res-Q is modeled after actual rescue situations faced by mountain explorers all over the globe. Played by two Alliances of two robots each, robots will score points by: "resetting" Rescue beacons; delivering Rescue Climbers to a shelter; parking on the mountain; and parking in the Rescue beacon repair zone or floor goal. Robots may also score points by retrieving debris from the playing field and placing them in mountain or floor goals, and also by hanging from a pull-up bar during the last 30-seconds of a match.

Students Start FRC Training

Along with FTC as a training grounds for FRC, we also have trainings with our mentors to help us to prepare for the rigors of FRC. These training are important because during the six week FRC build season, the time we have is limited so we must spend it towards the completion of the robot and cannot be learning how to do something during this time. From September to December members from each perspective subteam will meet each week to learn the skills we will need in the new year. Electrical/Programming, Business, and Graphics/PR have been meeting on Sundays and Mechanical has been meeting on Mondays.



TroboBots Take to the Airport

For the next few months, our 2014 FRC Robot can be seen at the Honolulu International Airport, Interisland terminal.

Our Generous Sponsors



Upcoming Events

- **Fall STEM Camp**
Monday-Friday, October 5-9 at Mililani High
- **Make a Difference Day**
Saturday, October 24 at Mililani High
- **FLL District Tournament**
Saturday, October 31 at Mililani High
- **FTC League Tournament**
Saturday, November 14 at Punahou School
- **FTC League Tournament**
Friday, November 27 at Mililani High School
- **FTC State Tournament**
Saturday, December 5 at Neil Blaisdell Center
- **FRC Kickoff**
Saturday, January 9 at McKinley High School

For more information, visit us on Facebook and Youtube at Mililani High School FIRST Robotics