

# The Highlanders... on Vacation?

## The Highlanders The Cyber Cycle



The Highlanders took the summer off from school, but not from robotics! It was a busy, fun filled time—lots of time for friends, fun, teaching, learning and generally spending time with robots. Official practices slowed down to once per week, but we spent time showing off the robot, teaching robotics to kids of all ages, hitting the July 4th parade. We did, of course, get a few things done in the shop, too.

We started off the summer with Magnetar visiting Liberty High School during their Liberty Eagle days—kind of like a field day.

We also had the opportunity visit the IMAGINANTES Youth Workshop, a unique week-long program offered during the summer that specifically reaches out to minorities, ages 13 to 17 and it's offered free of charge.



We attended a scouting showcase in nearby Loveland, giving local Boy Scouts some exposure to FIRST and robotics.

For the second year in a row, we marched with the Fort Collins 4th of July parade. Great weather and great fun. Magnetar didn't make it that far—a broken chain left him waiting on a corner for us. Quasar, our robot from 3 years ago, still proved to be a workhorse and a crowd pleaser. Tossing that big exercise ball in the air got oohs and ahs from the folks lining the one-mile parade route. We handed out information about FIRST Robotics, the Highlanders and our summer camps along the way.





# Robotics Summer Camps

The Cyber Cycle - Summer, 2016

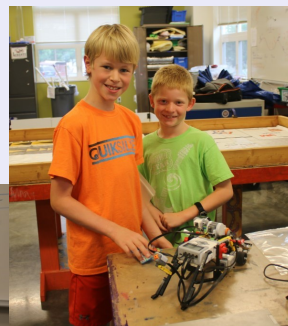


We ran three robotics camps this summer—a two-day Jr. LEGO Robotics camp for grades K-2, a five-day LEGO Robotics camp for grades 3-6 and a five day Water-Botics camp for grades 3-10. Our team members taught the students at an appropriate level—some learned basic building techniques while others learned gear ratios and programming models. We had a great time with all of the camps, learned a lot and also raised money to help fund our season.



Our Jr LEGO robotics camp focused on the main principles of FIRST LEGO League Jr. for 2016—animal habitats, simple machines and building with LEGOs. We even took the opportunity to read our book from last year, Rocky Learns Emotions, to the students.

## LEGO ROBOTICS SUMMER CAMP



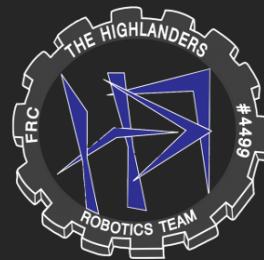
LEGO robotics camp had the students trying to solve challenges from previous years—using building techniques, gearing motors up and down and programming methods. Most of the groups even used sensors to implement line-following programs.



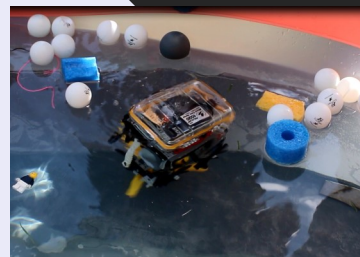
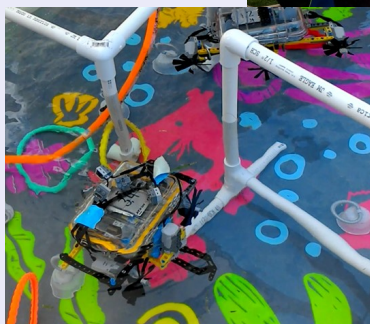


# Robotics Summer Camps

The Cyber Cycle - Summer 2016



We ran a Water Botics summer camp this year, as well. The camp gave students a chance to explore different ways to manipulate remote-controlled robots in (and under) the water. Teams of 4 were given a series of challenges to solve. The different challenges required very different approaches—they ranged from collecting ping-pong balls floating on the water to diving deep to get rings off of the floor of the pool. They had the most fun, though, with an obstacle course, competing to complete the course in the best time.



We invited an FTC team and brought both Quasar and Magnetar to the camp on its last day to show the kids what they could do if they just stick with robotics.

