

Welcome to the **GEARS Summer Newsletter...**

The School year is over and graduations are complete. It's exciting to realize that all the seniors from Robotics Team 1629 are heading off to college, several with sizable scholarships and incentives. Meanwhile, the rest of us can look forward to a range of fun technology camps over the summer.

Later in this newsletter I'll recap some of the exciting events that occurred earlier in the year, but for now I want to talk about some new activities we have coming up at GEARS.

The SeaPerch Underwater Experience.

Ever since I started GEARS I've wanted to run an underwater robotics camp. Well, it's finally here, and it's called SeaPerch!



During the week of June 23-27, we're inviting a group of youngsters and their parents to experience underwater technology first-hand through the SeaPerch program. SeaPerch was created at MIT (future home of Emily Rosser), and is being promoted by the Society of Naval Architects and Marine Engineers (SNAME), and the Office of Naval Research (ONR). SNAME and ONR both want to encourage our youth to take an interest in marine technology, so they've created a kit-of-parts which camp participants will use to assemble their own underwater robot.

Participants will explore math, science and technology related concepts while building their own robot. They will then customize their robot to perform underwater missions, and work in teams to solve underwater challenges.

Since we can't depend on GC weather, Garrett Container Systems has designed, and is building GEARS a large water tank with transparent sides to enable the robots to be built and tested indoors at our facility.

These are wonderful donations of time and materials and I want to thank Don Morin (GCS), SNAME, ONR and the MIT Sea Grant for making the camp possible.

The student age range for the camp is 13-16 years, but we also wanted to get parents involved, so we are running the camp from 5:50pm- 9:00 pm. We will consider younger children for the camp if a parent will be attending all the sessions. The fee for the camp is \$95 (\$85 for GEARS members) per student, and each participant will leave with his or her own robot.

If you are interested in the camp, you can download the registration form from www.GEARSinc.org or call 301.387.2331

Tech Camps

Chuck Trautwein and Arlene Lantz will be running their excellent Tech Camps at GEARS again this summer. This is a great opportunity to get young kids interested in inventing and building things. The Primary grade camps start off easy with basic LEGO machines, and then they work up to the Elementary grade camps where experienced campers can build and program sophisticated machines like a LEGO elevator or LEGO assembly line with automated color block sorter.

Here is the camp schedule. For more information and to register, go to the GEARS website and click on the **Tech Camps** tab.



Date	Camp	Times
July 2-3	FLL Seminar	9:00 am -3:00 pm (returning FLL teams)
July 7-10	Primary Tech Camp	9:00 am -12:00 pm
July 14-17	Grades 3-5 Tech Camp	9:00 am -12:00 pm
July 21-25	Grades 3-5 Tech Camp	9:00 am -12:00 pm (Yough Glades School)
July 28-31	Grades 3-5 Tech Camp	9:00 am -12:00 pm

Activity Recap.

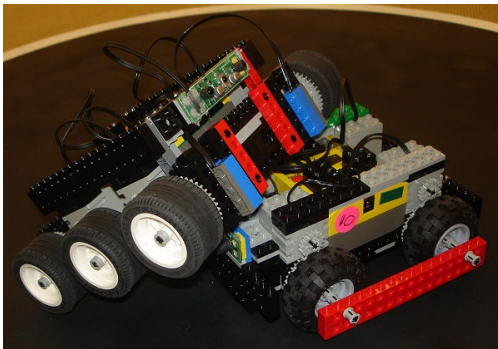
So much cool stuff has happened since the last newsletter, it's hard to know where to start.

We had five FIRST LEGO League teams compete in the 2007/8 season. All five teams brought home trophies from their competitions, including the Rookie team from Accident Elementary. The highlight of the FLL season was team **NeXTGEN** representing MD in Atlanta, and winning the first place Research Quality award. Garrett FLL ROCKS!

FIRST Robotics Competition **Team 1629** also had a great season, playing for the first time in Cleveland. The team brought home trophies from both of its competitions, including the Engineering Inspiration Award. This enabled them to travel to Atlanta to compete in the National Championship. It was a great experience having two county teams at the national at the same time. [A HUGE thanks to all our supporters who made the trip to Atlanta possible for BOTH teams.](#)

Unfortunately, Team 1629 is losing many of its veteran members this year, so we really need to find the next generation of robotics tinkerers to build up the team's ranks. If you know of any high school students that are looking for an outlet for their creative abilities, please contact Chuck Trautwein at ctroutwein@GA.K12.MD.US

SuGO Sunday competitions are becoming quite popular, and we're obviously on several kid's regular calendar. We even had a "Super SuGO" day where teams could build larger and stronger robots to compete in the ring. It was a HIT!



To celebrate the 4th of July weekend, Sunday July 6th will also be a **Super SuGO** day. (These are Super SuGO 'bots in this picture)

GEARS recently had the opportunity to bring SuGO into two schools this semester. We ran four mini-SuGO events as part of Accident Elementary's Enrichment cluster program. Students formed 4 teams to see who could adapt their pre-built SuGO bots to perform the best. It was a great way to expose students to robots & machines. We also used the same robots at Swan Meadow School in a non-competitive science experiment during the last weeks of school.

GEARS also hosted several 4-H After-School programs. Students from Loch Lynn and Accident had the opportunity to build LEGO robots and then learn how to program them to follow a path and interact with their environment. Thanks to Tammy Humberson for helping us expose even more kids to the fun side of science and engineering.

Thanks again, and see you soon at GEARS.
Phil Malone.

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