



# www.ortop.org <sup>\*</sup>MORE THAN A WEBSITE



## \* IT'S A FUN WAY TO GET KIDS INVOLVED IN ENGINEERING

*"Up until now there have been few opportunities to experience what it is like to be part of an engineering team. Participating in FIRST\*\* team programs gives students just that opportunity."*

*-Bruce Schafer, Director, Industry Affairs, Oregon University System*

*\*\*For Inspiration and Recognition of Science and Technology, an international non-profit educational organization - www.usfirst.org*



### FIRST® LEGO® League – FLL Students 9 – 14 years old

*Registration open from May to late September*

*Season: September – January*

Working in teams of 4 to 10, students use inexpensive LEGO kits to construct a working robot. With the help of coaches and mentors, the team members follow basic engineering principles to create and program their robots to solve the FIRSTLEGO League Challenge and create an annual themed research project. This is a great way to get GIRLS and BOYS interested in science and math, while at the same time they learn teamwork and creative problem solving. This is ORTOP's largest program with 320 teams participating. The 2010 theme is "Body Forward: Engineering Meets Medicine."

**More information at: [www.ortop.org/fll](http://www.ortop.org/fll)**

### JUNIOR FIRSTLEGO League – Jr.FLL

*Body Forward - Team Access Pass available August 2010 at [www.usfirst.org](http://www.usfirst.org)*

*Students 6 – 9 years old / OMSI Jr.FLL Expo in early 2011.*

Junior FIRSTLEGO League (Jr.FLL) is geared to children aged 6 to 9 years old and utilizes a modified FIRSTLEGO League (FLL) framework. Teams of up to 6 children and an adult mentor receive a mini challenge, based on the annual FLL research project. Using an open-ended LEGO building set, they will design a model depicting an aspect of this year's "Body Forward" Challenge. Children will spend approximately one month exploring, investigating, designing and building a model made with LEGO bricks. Teams also create a "Show Me" poster that depicts their experiences with drawings and words. Some teams choose to participate in the **OMSI Jr.FLL Expo** to share their work or hold their own Expo. **More information at: [www.ortop.org/jfll](http://www.ortop.org/jfll)**

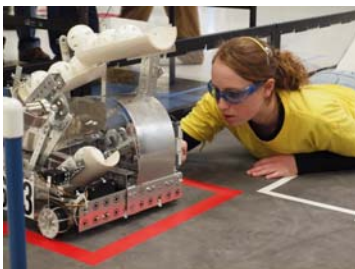


### FIRST® Tech Challenge – FTC Registration opens in May 2010

*Students 14 – 18 years old / Season: Sept. - February*

The FIRST Tech Challenge (FTC) program is a mid-level robotics competition designed to provide an opportunity for high-school students. FTC is an excellent way to experience the power, excitement, and fun of science, technology, engineering, and math at the same time they gain insights on the possibility of a technical career. Team members design, build, and program a Tetrix robot to participate in a well defined challenge – both competing and cooperating with other teams. They participate in qualifying and championship events in February. ORTOP offers FTC workshops for team members, coaches and mentors throughout the season.

**More information at: [www.ortop.org/ftc](http://www.ortop.org/ftc)**



2010/2011 ORTOP Sponsors (as of 6/1/10)



In 2010 over 3000 students across Oregon will participate.



### HOW YOU CAN BE INVOLVED

- ▶ **Start a team and coach or mentor.**
- ▶ **Encourage young people to join a team!**
- ▶ **Attend a free FLL or FTC Workshop for prospective coaches and mentors.**  
*Coaches/Mentors are teachers, parents, community organization staff or volunteers.*
- ▶ **Apply for an FLL/FTC team scholarship if needed.**
- ▶ **Be a judge, referee or volunteer at a tournament!!!**
- ▶ **Be an ORTOP Sponsor.**

### *What Teachers and Students have to say about the Oregon Robotics Tournament and Outreach Program and FIRST programs*

“This is what I kind of wanted to be when I grew up. So this gave me the chance to do it. And you can’t really watch engineers do what they do. You have to do it yourself.”  
– ORTOP Team Member

“The most important thing I learned today was really how to work with my teammates, that everyone’s views on something are really important and everyone’s ideas are valuable.”  
– ORTOP Team Member

FLL and FTC robotics is getting kids to think and learn in “3D”...it’s applied science, hands-on math and an amazing way to connect the classroom with real-world problem solving through teamwork. Plus, the yearly reuse of components makes this an affordable way to energize and engage students with engineering.”  
– Craig Hudson, Engineer, FTC Coach and Amity School Board Member

“All of us at Intel are thrilled to be part of the exciting Oregon Robotics Tournament and Outreach Program and are honored to ...witness the brilliant work of our talented home-state students. One of the most special aspects of the ORTOP program is its effectiveness in reaching out to a broad and diverse group of kids from all regions of Oregon.”  
– Nancy Cox, IT Manager, Intel Corporation

More info at  
[www.ortop.org](http://www.ortop.org)  
▶ **COACHES/MENTORS**  
▶ **VOLUNTEERS**  
▶ **SPONSORS**

### ORTOP / **FIRST**® Calendar

#### ▶ **Spring** ◀

Free FLL/FTC workshops /Registration begins

#### ▶ **Fall** ◀

Teams begin meeting for Jr.FLL, FLL & FTC

#### ▶ **December** ◀

18+- FLL Qualifying tournaments in Oregon

#### ▶ **January** ◀

Intel Oregon *FIRST* LEGO League Championship Tournament & Oregon JFLL Expo

#### ▶ **February** ◀

Oregon *FIRST* Tech Challenge Qualifying and Championship events



Celebrating 10 years of opening doors to the worlds of science and technology for Oregon’s Youth.