



# www.ortop.org

 \* 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*



### **FIRSTLEGO League – FLL** *Students 9 – 14 years old / Registration opens in May 2010*

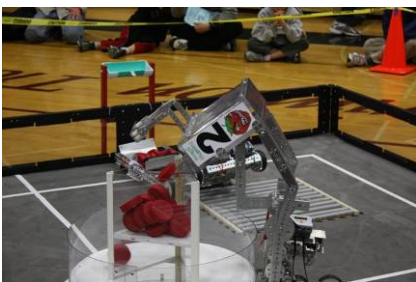
**Season: September – January**

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. 2010 challenge 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. In conjunction, teams create a "Show Me" poster that depicts the teams' experience 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**

**High School students and 8<sup>th</sup> graders ready for a high school program**

**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 and gain insights in the possibility of a technical career. Team members will be involved in the design, implementation, and programming of a Tetrix robot to participate in a well defined challenge in competition and cooperation with robots from other teams. Teams participate

in qualifying and Championship events in February. ORTOP offers FTC fest workshops for team members, coaches and mentors throughout the season. **More information at: [www.ortop.org/ftc](http://www.ortop.org/ftc)**

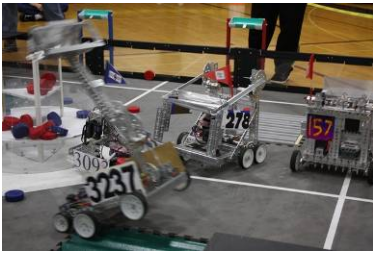
Title Sponsor  
for  
ORTOP FLL

#### **2009/2010 ORTOP Season Sponsors**



*Presenting Sponsor for FLL and FTC* ▶ ROCKWELL COLLINS / *Presenting Sponsor for Jr.FLL* ▶ OMSI  
*Platinum* ▶ RadiSys, TechAmerica  
*Gold* ▶ Bonneville Power Administration, PhTech  
*Silver* ▶ ESCO, IBM, Oregon University System, Vernier Software & Technology  
*Supporting* ▶ Electro Scientific Industries, Portland Community Media, Vista Masonic Lodge#215

In 2010 over 3,000 students across Oregon will participate.



### HOW YOU CAN BE INVOLVED\*

- ▶ **Start a team and coach or mentor**
- ▶ **Encourage your child (students) to join a team!**
- ▶ **Free FLL and FTC Workshops available to coaches and mentors**

*Coaches/Mentors are teachers, parents, community organization staff or volunteers.  
ORTOP FLL/FTC Scholarships available to help teams.*

- ▶ **Be a judge, referee or volunteer at a tournament !!!**
- ▶ **Be an ORTOP Sponsor**

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** ◀

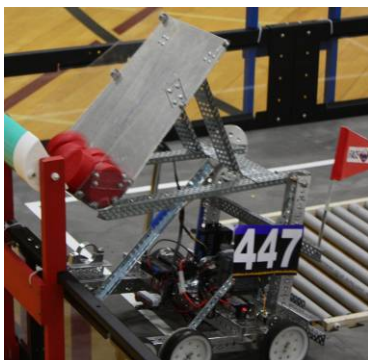
18+- FLL Qualifying tournaments in Oregon

#### ▶ **January** ◀

Intel Oregon *FIRST* LEGO League  
Championship Tournament  
& Oregon Jr.FLL Expo (January 2011)

#### ▶ **February** ◀

Oregon *FIRST* Tech Challenge  
Qualifying and Championship events



### *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



2001-2010  
Celebrating 10 years of opening  
the doors to the worlds of  
science and technology for  
Oregon's Youth