

## FIRSTfare Seminar Schedule October 15th, 2011

Seminar	Presenter	Room	Time	Track
Public Relations, working with the press	Jodi-Walder-Biesanz (PR executive)	MS	9:00am	All
New Coach Essentials	Dale Yocum (1540 Head Coach)	Gerlinger	9:00AM	All
<b>WELCOME</b>	Deb Mumm-Hill FIRST Regional Director, Presenters	Cabell	10:00AM	All
College Admissions for FRC students	Jodi-Walder-Biesanz (College admissions coach)	Cabell	10:30AM	All
Autodesk Inventor for Rookies	Justin Hoey, Paul Normand, Autodesk	Gerlinger	10:30AM	Mech
Tool Design and Safety	Matt Driggers (2517 Mentor)	Library Classroom	10:30AM	Mech
Java Introduction	Andrew Merrill (1540 Software Mentor)	MS	10:30AM	SW
Fundraising	Deb Mumm-Hill (FIRST Regional Director)	Cabell	11:30AM	All
Autodesk Inventor – Special Techniques	Paul Normand, George Cook, Autodesk	Gerlinger	11:30AM	Mech
Project Management	Jason Marr and Jean Oh, Boeing	Library Classroom	11:30AM	Mgr
Java for FRC	Andrew Merrill (1540 Software Mentor)	MS	11:30AM	SW
<b>Lunch</b>	Bring your lunch or buy Pizza onsite. Girls should bring their lunch to Girl's Generation below.		12:30PM-12:50PM	All
BunnyBot Q&A	Dale Yocum (1540 Head Coach, BunnyBot event organizer)	Library Classroom	12:30PM	All
Girls Generation	Marina Dimitrov (1540 Girls Generation organizer)	MS	12:30PM	All
Pneumatics for FIRST Robots	Tim Bennington-Davis (1425 Mentor)	Cabell	1:00PM	Mech
People Management	Bob Hendel (1510 Head Coach)	Gerlinger	1:00PM	Mgr
LabVIEW Introduction	Dennis Erickson (1510 Mentor)	MS	1:00PM	SW
Chairman's Award	1510 (winners of 2011 Chairman's)	Gerlinger	2:00PM	All
Manipulators for FIRST Robots	Bruce Whitefield (2471 design mentor)	Cabell	2:00PM	Mech
LabVIEW for FRC	Dennis Erickson (1510 Mentor)	MS	2:00PM	SW
Website User Interfaces	Bob Goetz (OregonFirst webmaster)	Library Classroom	2:00PM	Web
Competitive Intelligence & Modern Technologies	Sara Ashback (Student 2811)	Gerlinger	3:00PM	All
Control Systems for FRC	Tim Bennington-Davis (1425 Mentor)	MS	3:00PM	Elec
Drive Trains for FIRST Robots	Dale Yocum (1540 Head Coach)	Cabell	3:00PM	Mech
Websites using Wordpress	Bob Goetz (OregonFirst webmaster)	Library Classroom	3:00PM	Web

## **Autodesk Inventor for Rookies**

See what all this Inventor fuss is all about. This breezy introduction will give you a sense for what the program can do and, hopefully, inspire you to try it for designing parts of your robot. Presenters: Paul Normand & George Cook from Autodesk.

## **Autodesk Inventor – Special Techniques**

Special techniques in Inventor of particular interest to FRC teams. Presenters Paul Normand, George Cook from Autodesk.

## **BunnyBot Q&A**

Those taking part in the Dec 17th BunnyBot event can meet, share ideas, and get questions answered about this friendly competition. The various field pieces will be on display. See what those Bunnies look like. See a Nerf Swarmfire! How is an Island built? Dale Yocum, Head Coach of Team 1540 and organizer will shed the light.

## **Chairman's Award**

The Chairman's Award is the highest award bestowed to a FIRST Robotics team at the Regional and Championship competitions. It is based off of how a team demonstrates FIRST's ideals through community service, recruitment, mentoring, and gracious professionalism, along with other great team attributes. Discussion will include an introduction to the award, activities teams do to win the award, essay writing style, presentation tips, and sample questions. Presenters: Team 1510, winners of the 2011 Chairman's Award at the Autodesk Oregon Regional.

## **College Admission for FRC Students**

Select Colleges and Universities around the country are providing scholarships and admission preference to students with a FIRST robotics background. This session will help you leverage your FIRST experience to get into the best school for you. Presenter: Jodi Walder-Biesanz, College Admission Coach.

## **Competitive Intelligence & Modern Technologies**

See how team 2811, Stormbots does competitive analysis at the competitions. This system consists HTML SQL and Excel parts. The HTML is an actual website displayed on the galaxy pads, SQL sorts the data, and the Excel displayed it so informed decisions can be made. Presenter: Sara Ashback of team 2811.

## **Control Systems for FIRST Robotics**

An introduction to the control system both from a hardware and conceptual standpoint. Learn what the Input and Output capabilities of the cRIO are. Learn how all this stuff is wired and best practices. Presenter: Tim Bennington-Davis Mentor of Team 1425 and Woodie Flowers winner 2011.

## **Drive Trains for FIRST Robots**

The drive train is the most important part of your robot yet many teams make some basic mistakes in their design and construction. This session compares 2 wheel, 4 wheel, 6 wheel, Mecanums, treads, and some of the unusual ones. We'll look at the various transmissions and motors available to FIRST Teams. Vendors such as IFI, Skyway, and AndyMark will be discussed and audience members will share their experiences. Presenter: Dale Yocum. Robotics Program Director, Catlin Gabel School Team 1540.

## **Fundraising**

Learn how to create your team image and story so that your fundraising efforts are successful. Included will be tips on how to partner with industry, tactics for getting students in front of an audience plus giving an effective presentation. Topics will include messaging, marketing materials, elevator pitch, budget clarity and how to find sponsors as well as grants. Deb Mumm-Hill, FIRST Regional Director

## **Girls Generation**

Team 1540 will be hosting the second annual Girls' Generation scrimmage on Oct. 29, where teams will play last year's game (Logomotion), but with a major change - only girls form the drive team and pit crew. Join this session to get the latest details about the event and meet the other girls who will be involved. If there aren't enough girls on your team for a full drive team and pit crew, you can connect with girls from other FRC teams and make cooperation arrangements. Marina Dimitrov, co-captain of Team 1540, will be leading the presentation and discussion.

## Java - Introduction

If you've never programmed in Java before or need a refresher, this session will give you a high level idea of what the language looks like and what this object orientation stuff is all about. Andrew Merrill, Computer Science Instructor at Catlin Gabel School and software mentor for team 1540.

## Java for FRC

Assuming you know the basics of Java, how does it apply to FRC? Find out from Andrew Merrill, Computer Science Instructor at Catlin Gabel School and software mentor for team 1540.

## LabVIEW Introduction

For those who want to know more about the programming language LabVIEW, this presentation offers an overview. It will discuss the salient features of the language which includes its being a graphical interface, its ability to create virtual world that can surround code to test that code, and that it is self-documenting. Also discussed is the fact that it is one of the very few "dataflow" languages which significantly aids in preventing ambiguous instruction paths which leads to efficient and rapid programming. By Dennis Erickson, 1510 Mentor.

## LabVIEW for FRC

Building on the introductory session, this seminar explores how LabVIEW is used for FRC robots. By Dennis Erickson, 1510 Mentor.

## Manipulators for FIRST Robots

Compilation of approaches used for FIRST robotics game piece manipulating systems. Will briefly discuss pro's, con's and design trade offs for a number of different manipulator designs. Presented by Bruce Whitefield, shop and design mentor for Team 2471, Team Mean Machine. Director of Manufacturing Quality at ON Semiconductor.

## New Coach Essentials

This pre-session is designed for coaches and student leaders new to FRC though anyone is welcome. We'll cover team organization, logistics, mentor roles, sample build schedules, budgets, facilities, tools, strategy, and much more. Presenter: Dale Yocum, Head Coach Team 1540, Oregon regional volunteer of the Year 2011. FIRSTForce Metro coordinator.

## People Management

There's little more important than effective management and leadership of your team and its departments. This talk focuses on how to get the most from people, have them feel their time was well spent, and make it fun being involved. For student leaders and mentors. Bob Hendel, 1510 Head Coach and Woodie Flowers award winner in 2010.

## Pneumatics for FIRST Robots

An introduction to the pneumatic parts used on FRC robots, engineering challenges and possible solutions. Calculations related to pressure, cylinder, compressor and force and torque needs will be introduced. Presenter: Tim Bennington-Davis, 1425 mentor and Woodie Flowers winner in 2011.

## Project Management

A discussion of basic tools that mentors and team leaders can use to establish a proper project scope, manage resources, track progress, and deliver results on time. Tools discussed include: Skills Matrix, Resource Loading Diagram, Design Review, Work Breakdown Structure, Functional Efficiency Technique, Failure Modes and Effects Analysis, Gantt Chart. Presenter: Jason Marr and Jean Oh, Boeing Corporation.

## Tool Design and Safety

Faster, easier and better quality work is done by using the right tool for the right job. It also significantly reduces the amount of blood and skin needed to be cleaned off of your robot parts. This presentation is focused on WHY tools are designed the way they are and HOW this affects safety. Although this presentation is intended for everyone with less than 20 years of experience using tools; Safety Captains, mentors and parent volunteers supervising students, and newer team members, will especially get value from attending. Presenter: Matt Driggers, Mechanical Engineer and mentor for team 2517, the Green Wrenches. Matt has been known to demonstrate his topic in gory, noisy or messy ways so beware.

## **Website User Interfaces**

Get the word out about your team in a high impact way. This session s looks at the way website design affects the user experience. Teams planning on creating award winning websites, no matter their technology, will want to pay close attention. See what website judges are looking for. Presenter: Bob Goetz, webmaster for [www.oregonfirst.org](http://www.oregonfirst.org).

## **Websites Using Wordpress**

An overview of the Wordpress Content Management System and its application for creating full blown websites for FRC teams. Presenter: Bob Goetz, webmaster for [www.oregonfirst.org](http://www.oregonfirst.org).