



## PTC Creo Basics Session



TIME	DESCRIPTION	NOTES
8:30am – 9:00am	Registration, Welcome, & Demonstration FTC8620 & FTC8943	Donuts! & PTC Creo model demo from FRC4931
9:00am – 9:15am	Introduction and Welcome Dr. Jay Hunt, PTC	Instructor & attendee introduction: Name, Team, #Years, Experience with CAD
9:15am -10:15	<a href="#">HOW TO MODEL ALMOST ANYTHING</a> Exercise 1 – Solid Modeling	Exercise 1 makes you familiar with all the mouse and keyboard inputs that you will need later in the workshop.
10:15am – 10:30am	Break	
10:30am – 11:30am	<a href="#">HOW TO MODEL ALMOST ANYTHING</a> Exercise 3 – Model Analysis Exercise 4 – Assembly Constraints (Just the peg and block assembly – Steps 1 through 23)	Exercise 3 and Exercise 4 shows you some of the analysis features. This is where we will see the basics of how to assemble.
11:30am – 12:30pm	LUNCH	
12:30pm – 1:45pm	<a href="#">HOW TO MODEL ALMOST ANYTHING</a> Exercise 6 – Assembling Mechanisms	Exercise 6 show you how to use an FTC kit of parts to assemble a robot.
1:45pm – 2:00pm	BREAK	
2:00pm – 3:15pm	<a href="#">HOW TO MODEL ALMOST ANYTHING</a> Exercise 7 – Custom Part Creation Exercise 9 – Creating Part & Assemblies	Exercise 7 covers the basics of extrusions. Exercise 9 teaches you how to create parts for assemblies.
3:15pm – 4:00pm	<a href="#">3D PRINTING WITH PTC CREO</a>	We'll break out the 3D printers and show you how to have some fun with CAD!

In the full-day basics course, you will get very close to the point of having a fully mechanized drive train assembly with moving wheels, and will have created your own custom parts from drawings.



September 26, 2015



# PTC Creo CAD Workshop



## PTC Creo Advanced Sessions



TIME	DESCRIPTION	NOTES
8:30am – 9:00am	Registration, Welcome, & Demonstration FTC7129 & FRC4931	Donuts! & PTC Creo model demo from FTC7129
9:00am – 9:15am	Introduction and Welcome	Instructor & attendee introduction: Name, Team, Years of Participation, Experience with CAD
9:15am -10:15	<a href="#">ADVANCED MECHANISMS</a> Scott Cushman, FTC7129	Scott will show you how to use the Mechanism features of PTC Creo to really make your robot move!
10:15am – 10:30am	Break	
10:30am – 11:30am	<a href="#">PART FAMILIES</a> Rande Johnson, FRC4931/FTC8620	Rande will show you how to create Family tables in Creo to make using related parts (fasteners, bearings, extrusions, etc.) much easier to manage.
11:30am – 12:30pm	LUNCH	
12:30pm – 1:45pm	<a href="#">IMPORTING/EXPORTING PARTS</a> Scott Cushman, FTC 7129	Scott will show you how to download parts from the Internet (like the standard Actobotics kit of parts); to convert them to Creo format, then to export them as various types of files. (.stl for printing, .step, .zip)
1:45pm – 2:00pm	BREAK	
2:00pm – 3:15pm	<a href="#">USING WINDCHILL TO MANAGE CAD</a> Rande Johnson, FRC49231/FTC82620	Rande will show you how to set up PTC's Windchill CAD data manager to make sharing files among team members much easier.
3:15pm – 4:00pm	<a href="#">SPECIAL TOPICS / GO-BACKS / Q&amp;A</a>	We will use the remaining hour to go where the attendees want to take us!

In the full-day advanced course, you will get tips and techniques to make CAD development much easier - for both your robot and your team!



September 26, 2015

