2006
Technology Enrichment Sessions

hosted by: FIRST Team 1002
Georgia Tech RoboJackets and Wheeler High School CircuitRunners

Mechanical Topic	Programming Topics	Description	Date
Basic Training Session		An all-day session that will serve as an introduction to the principles of FIRST and robot building using Vex kits.	09/17/05
Introduction & Physical Concepts	Intro to Programming	3 hour workshop on physics concepts of robot building, and essential principles of programming	09/26/05
Frames, Chassis, Drive trains 1	Programming basics	3 hour workshop on understanding stable and strong robot frame/chassis buidling, drive trains, and programming using pseudocode.	10/03/05
Drive Trains 2, Gearboxes	Introduction to C Programming	3 hour workshop on more advanced drive train design, gearboxes, and an introduction to programming with C.	10/10/05
Manipulators: Arms and Conveyors	Compiling, Uploading, and IDE's	3 hour workshop on building mechanical arm and conveyor systems to be reliable, and programming concepts of compiling and uploading programs, and programming software.	10/17/05
Design Tools	More C Programming	3 hour workshop on how to design a robot using concepts previously taught, and more advanced C programming(structures, arrays, etc).	10/24/05
Fluid Power: Pneumatics	Flow Control	3 hour workshop designing using pneumatic systems, and programming state machines, loops, and timers.	11/01/05
System Demo & Competition Bot Build	Input and Output	3 hour workshop where the final competition is introduced, and a sample robot assembly is made to demonstrate design principles, Also, how to handle joysticks and sensors inputs in programming.	11/07/05
System Demo & Competition Bot Build	Commonly used Algorithms using Vex	Continuing to prepare for the final competition, schools will be helped to build a robot for the compeition, and shown how to program for it.	11/14/05
Final Competition		To be determined. may included head-to-head competition as well as an autonomous component.	12/05/05

Location: To be announced.