



Bot'oberfest will be held at Atlanta Girls School on September 28, 2008. It is a **FREE** event offered by many volunteers from GA who value the FLL program and what it offers our students. Our only request is that you attend with a cooperative spirit and that all attendees help with clean up after their classes. A huge thanks goes to our sponsors that help make this event possible: Atlanta Girls School, CEISMIC - GA Tech, Jim Kelly from the NXTstep Blog, Kristie Brown from LEGO Education and YES! Youth Engaged in Science.

There are two portions for the day. You will register to attend either the morning portion or the afternoon portion. Both portions will offer the same classes. A description of the classes are below. We recommend that you divide your team members into different classes for the best coverage of materials. Priority is given to registered teams so please be sure to include all team details in your registration. Out of state teams are welcome but must follow the same registration guidelines. We do have a capacity limitation so do not delay in registering your team. Once we have met the capacity for our classes all other registrants will be offered an open forum discussion time as an alternative.

Generally, the schedule will be:

Morning Portion 9a-1p

Afternoon Portion 2p-6p

Doors will open at 8:30 am and 1:30 pm for the respective sessions

Morning and Afternoon - Agenda item

9:00 and 2:00 - Welcome and Opening Remarks

9:15 and 2:15 - Keynote Address

10:00 and 3:00 - Session 1 (select from classes below)

11:30 and 4:30 - Session 2 (select from classes below)

1:00 and 6:00 - Clean-up and Close

Directions

The Atlanta Girls' School is very easy to drive to and find. Use the link to Google Maps below to assist you.

3254 Northside Parkway, NW Atlanta, GA 30327

<http://maps.google.com/maps?q=3254+Northside+Pkwy+NW,+Atlanta,+GA+30327,+USA&ie=UTF8&z=16&iwloc=addr&om=1>

Overview of Class Content for the day

Programming:

Introduction to NXT Software and Functionality

- a) Differences between common pallet, complete pallet, and custom pallet
- b) Opening and saving programs
- c) Tools menu
- d) Download menu
- e) NXT window
- f) Basic Programming with the common pallet icons
- g) Troubleshooting and downloading firmware (Handout)
- h) Using the feedback block

Intermediate NXT Programming Class

- a) Overview of common pallet icons
- b) My Blocks
- c) Nested Loops & Switches
- d) Parallel processing
- e) Creating Profiles

Advanced NXT Programming Class

- a) Overview of complete pallet icons
- b) Decision Making: logic and compare blocks
- c) Variable Block
- d) Wiring and Data hubs
- e) Q&A session

RCX & ROBO LAB Programming class

This will be an open forum Q&A session for those using ROBO LAB 2.5.4 with the RCX Brick.

Building:

Robot Design: An overview: This will be a Q&A session and technique demonstration for robot design. This session is an overview that will help answer the question "Where do we start?" and will contain discussion of specific design ideas that can be incorporated into a competition robot. Physical examples will be displayed and their design concepts explained. New teams will find this discussion extremely helpful and numerous resources will be provided as a handout.

Reliable Robot Design: Learn to build your robot for predictable results in FLL. Do you want your robot to be sturdy, reliable and well designed? Some topics we will cover include:

- Building a sturdy robot
- Adding bumpers and wall huggers
- Good positioning of sensors
- Build your robot for predictability

We will also talk about "best practices" for teams in getting ready for competitions.

Chassis Design: This discussion will cover the area of Chassis Design. Robot chassis design can be a critical component of a competition robot and numerous tips and examples will be provided and discussed. The chassis is the central component of a competition robot and a well-designed chassis will allow for the use of many specialized attachments.

FLL Project & Judging:

Topics that will be covered in the Project portion of this session

- Picking a topic
- Researching
- Types of sources
- "Field trips" related to the topic
- Contacting experts
- Compiling information
- Creating sample (if applicable)
- Developing your project presentation
- Presenting your presentation and research to other audiences to inform them (School, church, scouts)
- Logistics and time limits of the presentation before judges
- Sample projects and links to more sample projects
- Copies of information and rubrics about projects from Coaches' Handbook
- Question period

FLL Missions:

Coverage and Q&A for the "Climate Connections" rules, including strategy discussion. Competition tables will be setup for teams to test and experiment if time permits. Bring your own kits and laptop (and power chargers).

Meet and Discuss:

Coffee and Soda Shop: A special area has been designated for a come-and-go, open discussion area. Share your resources, ask questions, meet other teachers and coaches. Snacks provided.

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