



FIRST TECH CHALLENGE

WORLD CHAMPIONSHIP INFORMATION

For Inspiration and Recognition of Science & Technology

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<http://www.usfirst.org>

FIRST TECH CHALLENGE 'HOT SHOT!' WORLD CHAMPIONSHIP EVENT

Dear Team,

Congratulations!

Your team has earned a spot at the *FIRST Tech Challenge* (FTC) World Championship. The FTC World Championship will take place on April 14 - 17, 2010 at the Georgia Dome and Georgia World Conference Center in Atlanta, Georgia. During this three day event, your team will compete against teams from across the United States, Mexico, Canada, Holland, China and Norway.

At the same time, the *FIRST* LEGO League World Festival and the *FIRST* Robotics Competition Championship will take place. More than 500 teams representing over 25 countries will be competing. There will be sponsors, suppliers, college representatives and a host of invited guests to share the fun.

As a reminder, teams need to check-in at the FTC pits at 3 pm on Wednesday, April 14th. Software inspections and judging will begin shortly after check-in. If you are not bringing your entire team on Wednesday, be sure to at least send a few students and the robot in working order.

Enclosed, you will find useful information for preparing to attend the World Championship. We've also enclosed information that will help you plan your trip.

The *FIRST Tech Challenge* staff, our Affiliate Partners, and all the event volunteers look forward to seeing you at this event. If you have any questions or need additional information, please e-mail our FTC staff at ftcteams@usfirst.org.

Sincerely,

Ken Johnson

Director, *FIRST* Tech Challenge

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Emergency Contact Information

Name of Child: _____

Name of Parent/Guardian: _____

Parent/Guardian phone numbers: _____
Business Residence

In case parent/guardian cannot be reached, please contact: _____

Relationship: _____ Telephone: _____

Physician's Name: _____ Telephone: _____

Insurance Company Name: _____

Insurance Company Address: _____

Insurance Company Telephone: _____ Policy #: _____

My child has the following medical problem: _____

My child takes the following medications regularly: _____

My child has the following allergies: _____

I AUTHORIZE MEDICAL TREATMENT FOR MY CHILD IN CASE OF ACCIDENT OR ILLNESS WHILE ON THE TRIP.

Parent/Guardian Signature: _____ Date: _____

FIRST does not require this information. This form is provided as a guideline only.

It is strongly suggested that the team coach keep a copy of this information in the event of an emergency.

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EQUIPMENT LISTS

Teams will use their own notebook computer to control their robots during matches.

MANDATORY EQUIPMENT LIST:

- *A Notebook computer with a battery that can power the notebook for at least 20 minutes between charges.*
- *The most current FTC version of the Field Control System (FCS), loaded onto the notebook computer (see <http://www.usfirst.org/roboticsprograms/ftc/content.aspx?id=15924>)*
- *Logitech Dual Action Controllers*
- *USB A-B cable to connect your computer to the NXT*
- *Safety Glasses*
- *Closed toed shoes*

RECOMMENDED EQUIPMENT LIST

- *Spare NXT batteries (disposable or rechargeable)*
- *Spare fuses for external battery pack*
- *Robot cart to transport robot, computer and tools between the pit area and the competition field on the Georgia Dome floor.*
- *Written or Electronic Checklists:*
 - *Pre-match robot check*
 - *Robot match setup*
 - *Post-match robot check*
- *Power cable to your notebook computer*

Teams are expected to arrive at the competition prepared to control their robot with the FTC FCS running on their own computer. Please take the time to practice using the FCS and the FCS Troubleshooting program at home.

ROBOT MATCH PROCEDURE

Monitor match progress on the playing fields. Match times are estimates. We will progress through the matches as quickly as we can. If we are ahead of schedule, we will not wait for the scheduled start time. We will start as soon as the teams and robots are ready.

IN THE PIT AREA

Make the Bluetooth connection between your robot and computer. Do not turn off the NXT – turning off the NXT will break the connection. Report to the queuing area on time, even if you're having technical problems or are unable to make the Bluetooth pairing. Technical help will be available to you on the dome floor for teams having pairing problems.

QUEUING AREA IN DOME

- *Arrive in the queuing area of your assigned playing field 10 minutes before the start of the match before your match.*
- *We are running 2 fields per division. Odd numbered matches are played on field 1, and even numbered matches are played on field 2.*
- *Pay attention to the action on your assigned playing field. Move to the alliance station at the playing field as soon as teams from the previous match clear the playing field.*

ON THE PLAYING FIELD

- *Place your laptop computer on the table at the alliance station. There will be a power strip available.*
- *Place the Logitech controllers on the table until the end of the autonomous portion of the match.*
- *Red Alliance Robots are placed on the field first.*
- *Blue Alliance Robots are placed on the field after the red alliance robots are on the field.*
- *Perform the following checks (at a minimum) every time your robot is placed on the playing field:*
 - *Pre-load Stee-Rike 3 Balls*
 - *Turn on the switch for the external battery*
 - *Select and execute the autonomous program on the NXT.*
- *Pay attention to instructions from the Referees and Game Announcer. Delays in responding to their instructions will contribute to schedule delays.*
- *The team coach will operate each team's FCS.*
- *The game announcer will start the autonomous and tele-op portions of the match with a countdown: 3-2-1 Go! Team coaches will click on the FCS start/resume match button on "Go!"*
- *Drivers will pick up their Logitech controllers at the end of the autonomous period.*
- *Pay attention to the Referees and Game Announcer so that the tele-op portion of the match can begin without delay.*
- *Referees will announce when teams may remove their robots from the playing field. Clear the area as quickly as possible so that teams for the next match can setup.*
- *Return the alliance flag to the queuing area.*

TROUBLESHOOTING TIPS DURING MATCHES

If your robot stops responding to commands from either of your Logitech controllers;

- *Verify that the Bluetooth Connection is active by looking at the Green "connected" button in the FCS display "Game Mode" tab. If the Red "disconnected" button is visible, press the Green "Connect" button to re-establish the Bluetooth connection.*
- *Verify that your Logitech Controller(s) is being recognized by the FCS. The Logitech Controller indicator in the FCS will flash Green when buttons on the Controller are pressed.*
- *Verify that the red "mode" light on the Logitech Controller is turned off.*
- *Ask the Field Tech Advisor (FTA) for help if these troubleshooting steps do not correct the problem. Don't wait until the end of the match to alert the FTA to a problem with your robot.*

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CHAMPIONSHIP ESSENTIAL INFORMATION

ACCIDENTS

Emergency Medical Technicians are located by the FRC Pit Administration Area.

Please notify *FIRST* staff of any unexpected medical problems or injuries.

Please do not move a seriously injured person unless it is dangerous for them to remain where they are. The Emergency Medical Technicians will evaluate the injury and move the person in an appropriate manner.

FIRST will file an accident report – We request your assistance to ensure that this happens in a timely fashion.

Coaches should carry Emergency Contact Information (form included) for each team member, especially those who are traveling without parents or guardians.

SAFETY

Safety glasses are **required** in the *FIRST* Tech Challenge and *FIRST* Robotics Competition pit area for ALL participants, volunteers, and guests at ALL times.

- Eyeglasses do NOT count as safety glasses unless they are made of impact resistant material AND have side shields attached.

Students should not run in the pits.

Students entering the *FIRST* Robotics Competition and *FIRST* Tech Challenge pit area should be aware that the robots can be dangerous and proper safety precautions should be followed.

CITY SAFETY

FIRST has worked closely with local officials to secure the safety of all event participants. We encourage team leaders to help keep everyone safe by asking your team to adhere to a buddy system when moving about downtown Atlanta. Please do not venture out into the city on your own. Look to the local police and Ambassadors, as well as your hotel, for assistance in locating a destination in the city. It is important that you remain on the defined path of Andrew Young International Boulevard. For a walking map of the downtown area that lists the hotels and their proximity to the Dome and GWCC, go to www.gwcc.com.

Please provide your team with key contact information for your designated Team Leader(s). Provide each with personal contact cell phone numbers, hotel and room number(s), and the Pit Emergency Number that will be given out shortly before the event.

We also recommend having pre-determined meeting points in case anyone gets lost. It is a good idea to have a daily meeting with your team to emphasize the importance of all around safety.

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CHECKLIST

Forms to bring

- Emergency Contact Form/Medical Permission form for each student
- Signed Consent and Release Form

Things to bring to the Championships

- GRACIOUS PROFESSIONALISM**
- A signed Consent and Release Form for every team member
- Robot – and all necessary equipment (i.e. batteries, sensors, etc)
- Engineering Notebook
- Safety Glasses for every team member
- A container to carry your robot, parts, notebook, and tools
 - Accidents can happen in crowded walkways!
- Power strip
- Laptop computer with power cable, programming software and programming cable
- Don't forget the Laptop power cord!
- Simple hand tools for robot repair and modifications
- Extra batteries for your robot
- A backup of your programs on CD or memory stick
- Extra Tetrix parts and expanded tool kit
- Note paper and pencil/pen
- A printout of your programs

OPTIONAL THINGS TO BRING:

- Things to promote FTC and your team
- Your plan to spread the word about FTC in your community
- Camera
- Trinkets to share with other teams (buttons, stickers, etc)
- Pit decorations (each team will have one 6' table for pit space)

What NOT to Bring:

Please Note: **FIRST is not responsible for lost or stolen items!**

- Please don't bring items of value (jewelry, video games, iPods, etc.)
- No outside food and drink is allowed at the event

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EVENT DO'S AND DON'TS

Do

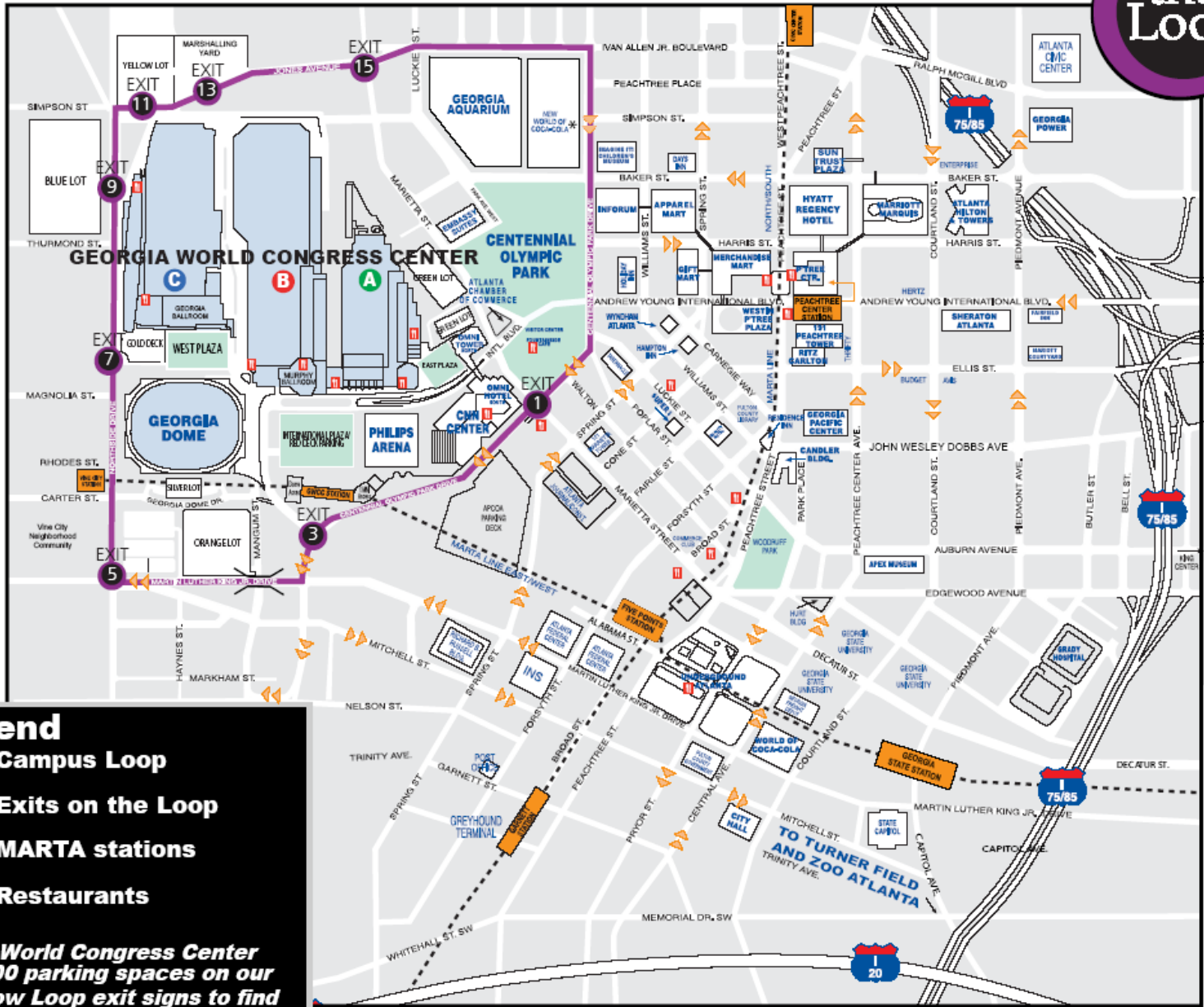
- Do demonstrate Gracious Professionalism
- Do operate in a safe manner
- Do wear safety glasses in the pits and while competing
- Do use tether cable to control your robot when not on the field
- Do cheer for your team and show team spirit
- Do cheer for other teams
- Do decorate your pit area
- Do look at other robots in the pits
- Do be prepared to show off your robot to visitors
- Do be prepared to have hordes of younger robonauts come to your pit

Don't

- Don't save blocks of seats in the bleachers
- Don't tape anything to the walls of the arena
- Don't run in the arena
- Don't block aisle-ways with toolboxes, carts, supplies, etc.
- Don't BOO other teams – they worked hard building and programming their robot also
- Don't bang sticks or other noise makers on the bleachers or railings
- Don't bring flammable liquids into the arena (cleaning fluids, etc.)
- Don't have food in the pits or around the robot fields
- Don't give away or sell food items



Georgia World Congress Center Authority Loop Map



Map Legend

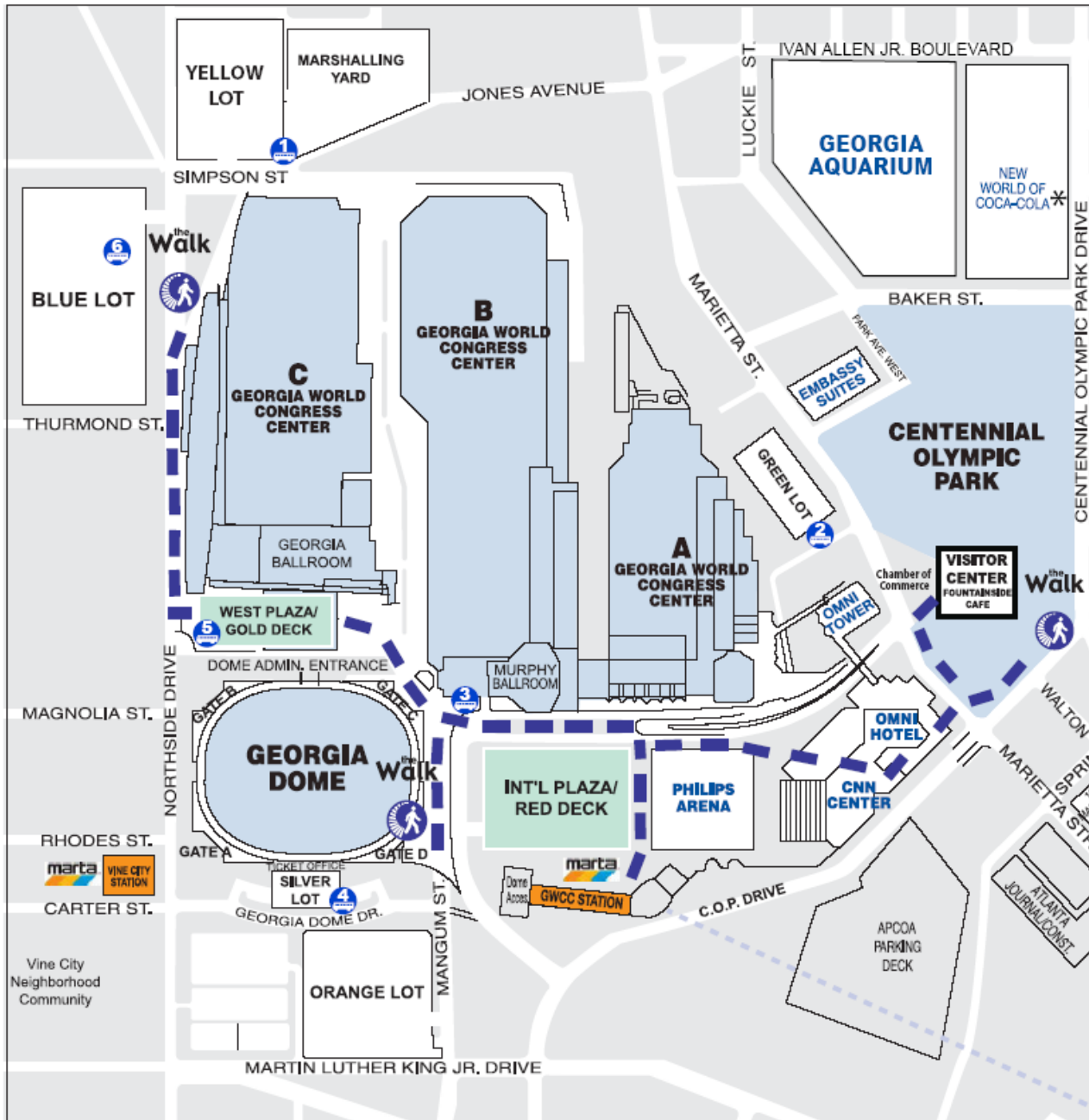
- Campus Loop
- Exits on the Loop
- MARTA stations
- Restaurants

The Georgia World Congress Center operates 5,000 parking spaces on our campus. Follow Loop exit signs to find the closest parking to your event.

*2007 completion date

Atlanta, Georgia

Georgia World Congress Center Authority Campus Map



For more information on the MARTA Transportation System, please visit <http://www.itsmarta.com>.

*2007 completion date

Campus Shuttle Stop

