

Southern Robotics Stretch

NJ FTC at Bridgeton

(September 28, 2013)

- **First and foremost, we thank our gracious hosts, Sandee Rodriguez and team members and parents of South Jersey Robotics**
- **We'd like to thank our volunteers and our mentoring teams who are coming to share the benefit of their knowledge and experience with our newest FTC teams and interested guests.**
- **Last but not least, THANKS to our new teams and guests. It is great to have you join us at "Southern Robotics Stretch". You are demonstrating your interest in having a solid team this year, by investing your valuable time. We are delighted to have you with us.**

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**Ashley McCormick Center
40 E. Commerce Street
Bridgeton, NJ 08302**

Event Start 9:00 am

Event End 3:00 pm

SCHEDULE FOR THE DAY

8:30		Welcome		Coffee, Juices, Doughnuts as folks arrive, mingle and get settled.
9:00		Orientation		Introductions Overview of the Day
9:15		Game Discussion		Description of this year's official FIRST Game as well as the special Game at the Driving Zone
9:30		Robot Build Time		Team Members work with their bots and/or Jersey Bot
9:45		Brainstorming		Discussion of Brainstorming and the New Game for those interested
10:30		Break Time		
10:45		More Robot Build, Debug and Test Time		
11:00		Coaches Forum		20-30 minute discussion new and veteran coaches
12:00		Lunch		
12:15		Forum on Judging		20 minute discussion during Lunch for interested parties
12:35		Forum on Competiton Day		20 minute discussion during Lunch for interested parties
1:00		Driving Zone Demos		Team demonstrate their creations for the Driving Zone Game
1:30		Scrimmaging		Pick-Up Matches at both Fields "Block Party" "Blocks, Bins & Bonuses"
2:45		Closing		
3:00		Event Complete		

VENUE & GENERAL INFORMATION

Supplies: Hopefully, you are bringing your robot, even your partially built robot, even your Kit of Parts. Remember, there will be building and working together in the morning. While two fields are available for use then, it is understood that many teams are still working on their bots. Additionally, please be sure to bring a Utility Strip. Safety Glasses, Battery Chargers (marked with Team Number) and spare parts.

Arrival: Please try to arrive between 8:30 and 9:00am and report to the check-in table immediately upon arrival. Please call 862-432-1526 if you are going to be late or if something unforeseen happens.

Pit Area: The Pits / Build Area will be located near the Fields on the second floor of the building. There is an elevator that can be used for transporting your carts and bots up to the second floor.

FIRST AID

Please go to the Check-In table for basic First Aid Supplies. Please alert the event organizers if more involved care is required.

GENERAL CONDUCT

Participants and volunteers are expected to behave with Gracious Professionalism at all times. Any unruly behavior or actions which create safety concerns may result in warnings or ejection from the site at the discretion of the organizers.

Ungracious or threatening behavior directed at referees or event volunteers will not be tolerated and will be grounds for disqualification and ejection from the event.

GENERAL SAFETY COMMUNICATIONS

Please notify an Event Crew member if you have any safety issues or concerns. Please report any illness or injuries to the Pit Administration table or event organizers.

FOOD: Our hosts, South Jersey Robotics, will have snacks available for arriving teams and guests.

Breakfast foods available for purchase will include donuts, pastries and fruit as well as coffee, tea, hot chocolate and OJ.

Lunch preorders will be taken for pizza and/or hot dogs. Snack bags of chips and such, baked goods, sodas and bottled water will be available for purchase most of the day.

Please bring some pocket money for food. All prices will be very reasonable. More about food prices on the final page of this Info Packet.

DETAILED EVENT INFORMATION

Official FIRST Game: One field will contain the “Block Party” game and can be used to fit-check your robot and get it ready for some afternoon scrimmaging, and for the season.

Driving Zone & Jersey Bots: Since we have invited non-teams to this event, including school admin from the area and prospective team members, there will be Driving Zone and some Jersey-Bot (loaner bots) for them to drive. These loaner robots can also be used by YOUR team to get more hands-on build experience during the day.

Blocks, Bins, & Bonuses: Those that watch NJ FTC on Facebook know that a special Game has been created for the September 28th event. It will allow our teams to work with the loaner bots and LEGO parts to gain more experience at scoring this year’s game pieces. So, while some of our team is working with your tournament bot on the official field. Others can be trying various block-lifting and block depositing end-effector approaches on the Driving Zone field.

Coaches Forum: At 11am, there will be forum at which we’d like coaches to gather and share their experiences, views and best practices. A representative of NJ FTC will also be present to share information.

Lunchtime Presentations: Lunch is from 12:00 – 1pm. For those who are interested, there will be two ~20 minutes training sessions during the lunch period. One covers Judged Awards and the other covers what to expect on Competition Day (inspection, pits, scouting, ...)

Afternoon Matches: For those who are ready, we hope to have some “Block Party” scrimmaging occurring on Field #1 and also some “Blocks, Bins & Bonuses” scrimmaging on Field #2.

Gracious Professionalism: Please act in accordance with the guidelines of Gracious Professionalism. Ungracious behavior directed at referees or event volunteers will not be tolerated and will be grounds for disqualification from the event. Be kind to your referees, fellow teams, and help them as needed.



Official Game

Field #1



The Game:

FTC BLOCK PARTY!™ is played on a 12'x12' square field with approximately 1'-high walls and a soft foam mat playing surface. Two randomly selected teams are paired together as an Alliance to play one match against a second Alliance. Alliances are designated as either "Red" or "Blue."

Scoring Elements are 100, 2", 2oz. plastic blocks. These blocks are yellow and can be used by all robots. At the center of the field is an assembly that includes a center bridge, pull-up bar, and two pendulums – each with four "pendulum goal baskets." Below the pendulums are floor scoring areas. An Infrared (IR) Beacon is randomly placed under one of the four goals on each pendulum after robots are placed on the field, but before the Autonomous period starts. The field includes tape to aid robot navigation and to mark protected areas. Each Alliance also has their own flagpole in opposite corners of the field.

At the start of a match, blocks are located in the two corners at the front and back of the playing field and are distributed evenly with approximately 48 per corner at the start of the match. Each robot starts with one block which teams can pre-load onto their robot. Robots may not possess or control more than four blocks at any time. Each Alliance starts with their robots touching the outer field perimeter wall on their side of the playing field.

Matches have two distinct periods of play: a 30-second Autonomous period followed by a two-minute Driver-Controlled period, which includes a 30-second End Game.

Autonomous Period:

The Game starts with a 30-second Autonomous period where robots are operated via pre-programmed instructions only. Prior to the start of the match, an IR Beacon navigation aid is placed randomly on one of four pendulum goals. Autonomous blocks placed in the goal designated by the IR Beacon receive bonus points. Robots gain points in Autonomous by: driving to the bridge and parking partially or fully upon it, placing blocks in the floor-scoring area below the balance, or placing blocks in the pendulum goals.

Driver-Controlled Period:

During the Driver-Controlled period, teams retrieve up to four blocks at a time from one of two block zones and place them in pendulum or floor goals. Blocks may not be de-scored from the pendulum goals, but may be de-scored from the floor goals. Alliances may score blocks into their opponent's pendulum goals, except during the End Game period.

End Game:

The final 30 seconds of the Driver-Controlled period is called the End Game. In addition to placing blocks in the scoring areas, robots earn points in the End Game by: raising their Alliance flag up a flagpole, raising themselves off of the ground using the bridge pull-up bar, and ending the match with a balanced pendulum.

Autonomous Period Scoring:

Autonomous block in the IR Beacon designated goal	40 points
Autonomous block in a regular pendulum goal	20 points
Autonomous block in a floor goal	5 points
Robot completely supported by the bridge	20 points
Robot on the bridge and touching the Field floor	10 points

Driver-Controlled Scoring:

Block scored in the floor goal	1 point
Block scored in the inner pendulum goal	2 points
Block scored in the outer pendulum goal	3 points

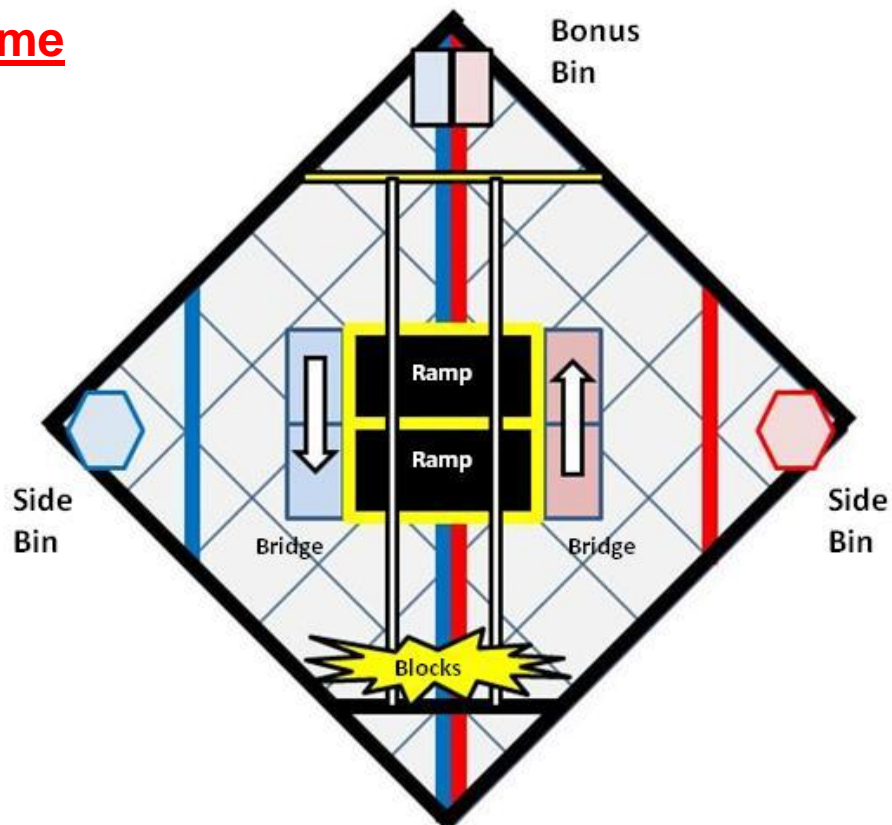
End Game Scoring:

Raised Alliance flag high level	35 points
Raised Alliance flag low level	20 points
Robot hangs from pull-up bar	50 points
Balanced pendulum goal bonus	50% of block score



Driving Zone Game

Field #2



BLOCKS, BINS & BONUSES

Object

- Move Blocks from Starting Zone (shown with sunburst near front corner of the field) to the Bins in the Scoring Zones
- Collect Bonus Points by parking on the Black Ramp during Autonomous Mode and/or parking on the Bridge during End Game.

Starting

- Robots must be in contact with the wall on their half of the Field.

Scoring Block Points:

- Each Block on the Field Floor of the Scoring Zone = 5 Points
- Each Block lifted into the 3" high Red or Blue Side-Bin = 20 Points
- Each Block lifted into the 6" high Red/Blue Bonus-Bin = 50 Points.

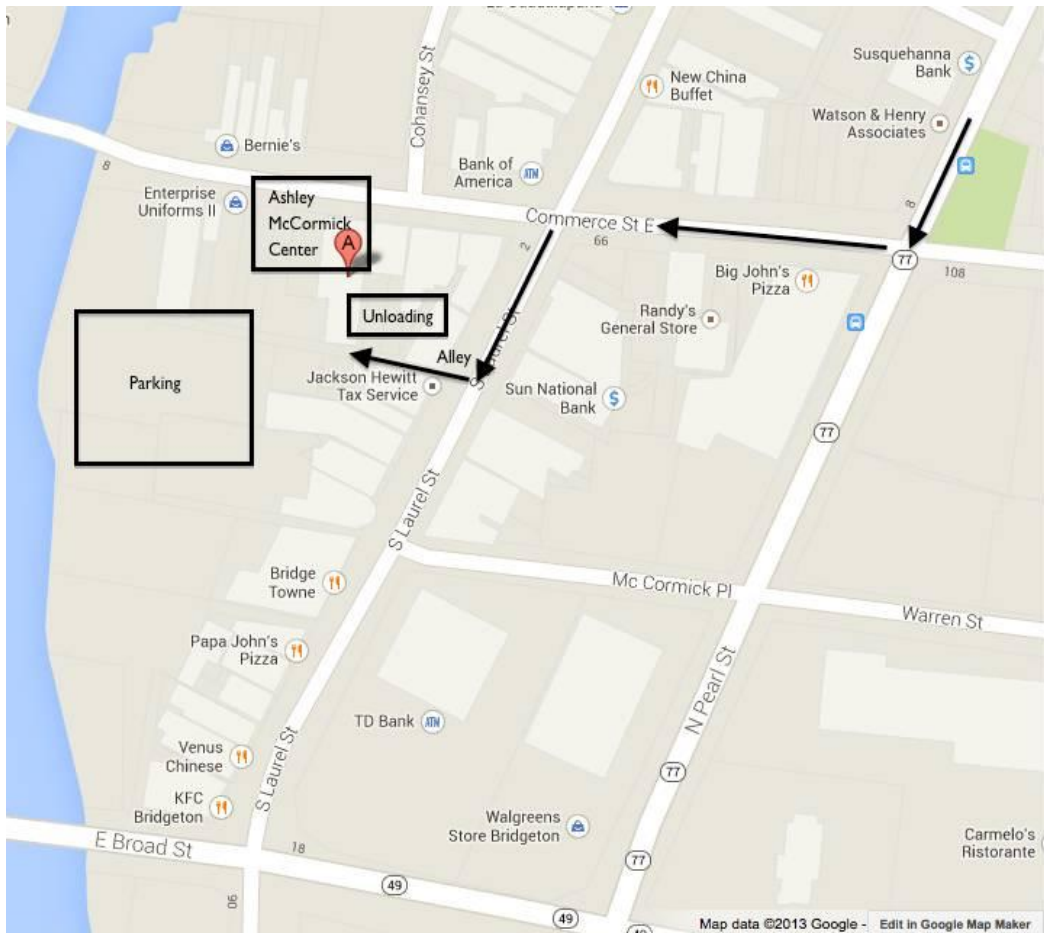
Autonomous Parking (30 second):

- Parking fully on the Black Ramp earns 20 Points.

End Game Parking (30 second):

- Parking on a unbalanced Bridge at Games End earns 10 Points per Bot
- Parking on a balanced Bridge at Games End earns 20 Points per Bot

Venue Parking and Access Information



The Map above shows the location and access to the venue.

- Again, the address is Ashley McCormick Center, 40 E. Commerce Street, Bridgeton, NJ 08302
- Teams should just continue down Commerce St. and turn left into the parking lot just before the bridge. We are planning to use the Riverfront Parking as it backs onto the alley and the Ashley McCormick Center.
- **Teams do NOT want to try to bring a vehicle of substantial size down the alley.**
- There is a freight entrance directly into the building from the alley. You can enter the alley from Laurel Street, but remember that the alley is NOT recommend for trailer trucks uses. This public alley empties into the large Riverfront Parking area.

FTC Team 7071 EngiNerds

Southern Robotics Stretch 2013

Thank you for joining us for this outreach! Not only are we stretching robotics further into South Jersey, we are also fundraising for our rookie team through concessions. Thank you for supporting us!

Below are the food options we have arranged for your eating pleasure at SRS 2013.

Breakfast:

Donuts	\$1	Coffee	\$1
Bagels	\$1	Tea	\$1
Fruit	\$.50	Hot Chocolate	\$1

Lunch and Snacks:

Pizza		
16" round pizza, 12 slices (choose cheese or pepperoni)	\$14	
By the slice	\$1.50	
Hot dogs	\$1.50	
Various kinds of chips in snack bags	\$.50	
SnoCones (we have a machine - fun!)	\$1	
Baked goods (cookies, brownies, cupcakes, etc.)	Prices as marked	
Candy	Prices as marked	

Lunch preorders will be taken either by email or at registration on the day of the event.

Thanks again!