



NATIONAL SOCIETY OF BLACK ENGINEERS

 Think Green! Please do not print unless absolutely necessary

2014-2015  
NSBE FIRST® LEGO® League Rule Book

LAST UPDATED

AUG. 2014



***National Society of Black Engineers  
2014-2015 FIRST® LEGO® League Program  
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Due to the nature of our programming and the partnerships involved, this rulebook is subject to change at any time. Changes may include but are not limited to rules, implementation, awards criteria/categories and procurements on behalf of the participants. NSBE will remain to be diligent in providing necessary information for our programming and limit any inconveniences that may occur.



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## THE MISSION OF NSBE

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The Mission of NSBE is to increase the number of culturally responsible Black engineers who excel academically, succeed professionally and positively impact the community.

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## THE PURPOSE OF FIRST® LEGO® LEAGUE

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The purpose of the FIRST Lego League is to increase students in grades 4-8 interest in Science, Technology, Engineering careers to allow them to excel academically and succeed in high school and college.

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## CONTRIBUTIONS TO FIRST LEGO LEAGUE (FLL)

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Contributions to FIRST Lego League will help us continue to make this an effective NSBE program available to NSBE 4<sup>th</sup> – 8<sup>th</sup> grade students nationwide. NSBE PCI will use contributions for program-wide support to give all participants the opportunity to have access to STEM resources.

### Financial Contributions

To become a FIRST® LEGO® League partner, send your financial contributions to:

National Society of Black Engineers  
ATTN: NSBE-PCI FIRST Lego League Program  
205 Daingerfield Road  
Alexandria, Virginia 22314  
Phone: 703.549.2207

### Volunteers

If you would like to become a FIRST Lego League volunteer, please contact us at [pci@nsbe.org](mailto:pci@nsbe.org).

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## ACKNOWLEDGEMENT - NSBE CONTRIBUTIONS

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Heartfelt gratitude and deepest thanks to the professional PCI committee.

*Katrina Hill, WHQ Programs Coordinator*  
*Elizabeth Gomez, Convention Planning Committee Pre-College Initiative Chair*  
*Morgan German, National Professional Pre-College Initiative Chair*



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## INTRODUCTION TO NSBE

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### NSBE

The National Society of Black Engineers (NSBE) was founded in 1975 by six black engineering students at Purdue University nicknamed the Chicago 6. The original aspiration was to establish a student organization to help improve the recruitment and retention of black engineering students. NSBE is now the largest student-managed organization in the United States with more than 25,000 members.

NSBE is comprised of more than 300 chapters on college and university campuses, 75 professional chapters nationwide and 298 NSBE Jr. chapters. These chapters are geographically divided into six regions. The NSBE mission is to increase the number of culturally responsible Black engineers who excel academically, succeed professionally and positively impact the community. For more information on NSBE, please visit [www.nsbe.org](http://www.nsbe.org).

In fulfillment of the NSBE objective to “stimulate and develop student interest in the various engineering disciplines”, the various programs and competitions were created for pre-college students.

### PCI

The Pre-College Initiative (PCI) Program is the focus of the NSBE effort to promote college, academics, technology, and leadership to pre-college students. Our primary focus is to encourage students in grades 6-12 to develop interest in Science, Technology, Engineering and Mathematics (STEM).

The mission of PCI is to lead the world in enhancing the pre-college students' academic, technical, and leadership skills in order to maximize their success in life. The vision is to establish PCI as an incubator for our youth, where they can be nurtured and guided in their academic careers.

NSBE Chapters support PCI through multiple programs.

### NSBE Jr.

A vital component of the PCI program is NSBE Jr., which serves as the membership category for pre-college students and institutions that are officially chartered with NSBE. NSBE Jr. members and chapters are at the core of PCI, as they are the primary focus and beneficiaries of PCI programs.

NSBE Jr. focuses on enhancing the education received by African-American and other minority pre-college students, as well as influencing these students to become tomorrow's corporate executives, entrepreneurs, and leaders. In this spirit, NSBE Jr. is the quintessential recruitment, teaching, and preparation device for the NSBE.



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## **INTRODUCTION TO NSBE FLL**

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The First Lego League competition will be held only at national convention. Prior to convention, teams will complete online assignments. They will also build and program Lego Mindstorm robots to compete during national convention. This year's theme is World Class and First Lego League is asking teams a question of how to improve the quality of education for students today. Please note that FRC workshops will not be held in all regions and that these workshops are subject to availability. For those regions without a workshop, there will be an online presentation held in place of the workshop. During the workshop, teams will have the opportunity to learn more about the specific details about the competition and ask questions. For more information please contact the PCI program for more information about your region's workshop. They can be reached at [pci@nsbe.org](mailto:pci@nsbe.org).

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## **NSBE FLL INFORMATION**

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### **Team Requirements**

NSBE Team Level:

(Ages 9-14) New: While non-NSBE Jr. members are allowed to participate on a team as long as they are an active member of the NSBE Jr. chapter. At least half of the team members must be NSBE Jr. members.

Team members must not exceed the maximum age on January 1 of the year the Challenge is released. For example, in the United States a student who turns 15 in May of 2014 would be eligible to compete in the Challenge released in August of 2014, whereas a child who turned 15 in December 2013 would not. Keep in mind that children can only be on one (1) team, but a coach is allowed to coach multiple teams.

If selected to participate, chapters are allowed ONE FLL team per chapter (as space permits).

Eligibility and Requirements:

- 1.) All participants must be active PAID NSBE Jr. members.
- 2.) Grades 6-8. However, members of a chapter in 4th & 5th grades may participate as long as half of the team consists of PAID NSBE Jr. members in grades 6-8.
- 3.) Attending the 41st Annual Convention in Anaheim, CA.
- 4.) Teams: Minimum of 4 students and a maximum of 10 students.
- 5.) Chapter advisor and team coach must participate in the 'FIRST Youth Protection Program'.

NSBE Jr. FLL teams that do not meet all the above criteria will not be allowed to participate in the program year.



## Cost

There is no cost to participate in the NSBE FLL competition. However, chapters are responsible for purchasing their team's field kit and robot. Teams are responsible for raising funds to attend the 41<sup>st</sup> Annual Convention in Anaheim, CA.

## Application Procedure

NSBE FLL registration is completed via an application process. Each team interested in participating for the 2014-2015 program year must submit an application to assess the team's ability to be successful participants in the program and to meet all of the team requirements. Completing all of the information in the application is vital to the success of the application committee to be able to assess your team's readiness for participation.

***IMPORTANT NOTE:*** A NSBE Jr. FLL coach can prepare more than one NSBE Jr. FLL team for the Annual Convention showcase.



## CRITICAL 2014-2015 DATES

For quick reference, the following target dates are listed to ensure your participation in the NSBE FLL competition. For further information on the upcoming NSBE conferences, please visit [www.nsbe.org](http://www.nsbe.org).

Team Responsibility And Events	Target Timeframe (No later than)												
NSBE FLL Team Application	Final submission deadline is <b>Friday, Sept. 12, 2014 by 11: 59 PM (EST)</b> . Complete your chapter's form early for priority consideration. An application does not guarantee your chapter's participation.												
NSBE FLL access to 2014 Challenge	Teams will receive login information to the online delivery system on a rolling basis as their application is accepted, and a formal invitation for participation is received. <b>The NSBE FLL Challenge is not released until late August by FIRST.</b>												
NSBE FLL Team Training	Held throughout most of the school year, September 2014 – April 2015												
Fall Regional Conferences	<p>Depending on how many applications and registrations are received, a workshop may be conducted at Fall Regional Conference to give more tips in regards to the FIRST Lego League programming year.</p> <table border="1" data-bbox="467 1121 1419 1623"> <tbody> <tr> <td data-bbox="467 1121 987 1199">Grand Hyatt Tampa Bay, Tampa, FL, – R3</td> <td data-bbox="987 1121 1419 1199"><b>October 31 - November 2</b></td> </tr> <tr> <td data-bbox="467 1199 987 1276">Hilton Cincinnati Netherland Plaza, Cincinnati, OH, – R4</td> <td data-bbox="987 1199 1419 1276"><b>November 14-16</b></td> </tr> <tr> <td data-bbox="467 1276 987 1354">Crowne Plaza Baton Rouge, Baton Rouge, LA – R5</td> <td data-bbox="987 1276 1419 1354"><b>November 14-16</b></td> </tr> <tr> <td data-bbox="467 1354 987 1432">DoubleTree Pittsburgh, Pittsburgh, PA – R2</td> <td data-bbox="987 1354 1419 1432"><b>November 15-16</b></td> </tr> <tr> <td data-bbox="467 1432 987 1509">Hyatt Regency San Francisco Airport, Burlingame, CA, – R6</td> <td data-bbox="987 1432 1419 1509"><b>November 21-24</b></td> </tr> <tr> <td data-bbox="467 1509 987 1623">Hyatt Regency Long Island at Wind Watch Golf Club, Hauppauge, NY– R1</td> <td data-bbox="987 1509 1419 1623"><b>November 20-24th</b></td> </tr> </tbody> </table>	Grand Hyatt Tampa Bay, Tampa, FL, – R3	<b>October 31 - November 2</b>	Hilton Cincinnati Netherland Plaza, Cincinnati, OH, – R4	<b>November 14-16</b>	Crowne Plaza Baton Rouge, Baton Rouge, LA – R5	<b>November 14-16</b>	DoubleTree Pittsburgh, Pittsburgh, PA – R2	<b>November 15-16</b>	Hyatt Regency San Francisco Airport, Burlingame, CA, – R6	<b>November 21-24</b>	Hyatt Regency Long Island at Wind Watch Golf Club, Hauppauge, NY– R1	<b>November 20-24th</b>
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National Showcase	<b>Held at the NSBE National Conference, Anaheim, CA March 25, 2014 – March 29, 2015</b>												



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## NSBE FLL OVERVIEW

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Official tournaments must follow the judging and awards structure determined by FLL. Although the audience mostly sees teams playing the Robot Game at tournaments, teams are also being judged on:

- **Robot Design**  
Each team's robot must be built in accordance with all allowable parts, software and other rules.
- **Project**  
Teams must demonstrate completion of all three (3) steps of the FLL Project (identify a problem, develop an innovative solution, and share with others) as part of their presentation, and fulfill any other requirements as defined in the annual Project document. For complete Project rules, visit the current Challenge page
- **Core Values**  
The FLL Core Values are the cornerstones of the FLL program. They are among the fundamental elements that distinguish FLL from other programs of its kind. By embracing the Core Values, participants learn that friendly competition and mutual gain are not separate goals, and that helping one another is the foundation of teamwork. We are a team. We do the work to find solutions with guidance from our coaches and mentors. We know our coaches and mentors don't have all the answers; we learn together. We honor the spirit of friendly competition. What we discover is more important than what we win. We share our experiences with others. We display Gracious Professionalism® and Coopetition in everything we do. We have FUN!

### ABOUT JUDGING

- Teams must participate in all elements of an FLL competition including the Robot Game and all three judged areas in order to be eligible for any FLL Core Award.
- Judges use the rubrics to help them determine which teams will receive awards.
- With the exception of the Robot Performance award, FLL awards are determined by a deliberation process, which is formulated around discussions of team performance in each category.
- If a team does not exhibit Core Values at a tournament, they will be disqualified from winning any awards – including Robot Performance, no matter how well they scored.
- Adults are strictly prohibited from directing team members or interfering with the judging process or robot rounds in any way.
- No team is allowed to win two awards, unless one of the awards is for Robot Performance. Robot Performance is the only category based solely on score.
- While they may attend other events for fun, teams are only eligible to win awards at the first official event of each qualifying level attended during the season.