



2015-2016 SPONSORSHIP INFORMATION PACKET

1

WHAT IS ILITE?

Our Vision

“A community of learning where persons, both young and old, share in a common goal of problem solving through science, technology, engineering, and mathematics to improve the world in which we live for all persons.”

ILITE, which stands for Inspiring Leaders In Technology and Engineering is an after school team of students who work together towards a common goal in STEM focused activities. ILITE's mission is to inspire young people to become leaders in science, technology, engineering, and mathematics (STEM) by providing them with a new way to learn by solving engineering challenges with the mentorship of industry professionals, to build a foundation of both technical, social skills, and values to create leaders in technology and engineering. In order to achieve this Mission, ILITE engages students through:

- Robotics Team
- Cyber Security Team
- Sustainability and Renewable Technologies
- Summer Camps
- STEM/Maker Faire Expo
- Boy Scout Events
- “Teach the Community” Events

ILITE was started in 2005 by a group of students and teachers with a passion for engineering, information technology, programming and robotics. Today, the ILITE organization consists of 3 independent teams: Robotics, Cyber, and Renewable Energy and is represented by over 90 active student participants guided by 20 adult mentors.

THE ILITE TEAMS

Each sub-team functions independently with a unique technology focus. Students participate on the team(s) of their choice as members of the ILITE organization.



ILITE ROBOTICS FRC

FIRST Robotics Competition

The robotics team is the largest and longest tenured team within ILITE. The team participates in US FIRST, a worldwide, multi-tiered robotics competition. FIRST Robotics, The Varsity Sport for the Mind™, combines the excitement of sport with the rigors of science and technology. Under strict rules, limited resources, and a six week time limit, teams of 25 students or more are challenged to raise funds, design a team "brand," hone in on teamwork skills, and design, build, and program five foot tall robots to perform prescribed tasks in alliance with a field of competitors. It's as close to "real-world engineering" as a student can get. Beyond the engineering aspect, teams are judged on their community outreach along and their ability to advance STEM education. Professional mentors volunteer their time and talents to guide each team.

ILITE'S FRC ACCOMPLISHMENTS

- 2015
 - Regional Chairman's Award
 - Regional Imagery Award
 - FIRST Dean's List Finalist Award
- 2014
 - First World Championship Innovation in Control Award
 - FIRST Dean's List Finalist Award
 - Regional Chairman's Award
 - Regional Creativity Award
 - Regional Finalist
- 2013
 - Regional Chairman's Award
 - FIRST Dean's List Finalist Award
- 2012
 - Regional Chairman's Award
 - Regional Engineering Inspiration Award
 - Regional Website Award
- 2011
 - Regional Engineering Inspiration Award x2
 - Regional Finalist x2
 - Woodie Flowers Finalist Award
- 2009
 - Regional Imagery Award
 - Regional Engineering Inspiration Award
- 2008
 - Regional Engineering Inspiration Award
- 2007
 - Regional Website Award
- 2006
 - Regional Rookie All-Star Award
 - First World Championship Rookie All-Star Award



ILITE CYBER DEFENSE TEAM

The cyber defense team is the second longest tenured team within the ILITE organization. Comprising of 9th-12th grade students, the team participates in the AFA Cyber Patriot Program.

The Air Force Association's (AFA) annual, National Cyber Patriot competition is designed to give hands-on exposure to the fundamentals of cyber security. Students are taught defensive skills focused on how to fix vulnerabilities and harden networks and systems by placing the students in the position of a newly hired IT professionals Programming, database, web development, systems operations, operating systems and networking skills are incorporated.

CYBER DEFENSE AWARDS

Platinum Advancement

- Team 498, High School Team

Gold Advancement

- Team 640, High School Team (1st place in Virginia)
- Team 756, High School Team
- Team 675, Middle School Team (12th in the nation)
- Team 1413, Ronald Reagan Middle School after school Team
- Team 1287, Battlefield High School JROTC Team



ILITE RENEWABLE ENERGY & SUSTAINABILITY

The newest addition to the ILITE organization. This team explores issues that affect global citizens in the areas of economics, culture, and the environment. Students grades 9-12 are introduced to the historic, economic, political, environmental, and cultural issues that impact the global community and its future. They explore the solutions offered by sustainable agriculture, energy efficient building design, and renewable energy sources. With an emphasis on research, students are encouraged to create their own solutions to energy problems within their school, even testing the heat levels and power draw of different rooms in the school. Through this program, students are made conscious of worldwide problems, of every kind, and given the tools to start to solve them.

STUDENT BENEFITS OF TEAM MEMBERSHIP

- Collaboration with industry professionals
- Work Ethic and Teamwork
- Business Practices
- Develop interest in technology and science¹
- Ability to find information and solve unexpected problems¹

¹First Longitudinal Study: Summary of Preliminary Findings-Year 2 report/
Executive Summary Center for Youth and Communities, Brandeis University



TEAM ORGANIZATION

Sub-teams



Business and Outreach



Build



3D Printing



CAD



Electronics



Graphic Design



Photography/Videography



Programming

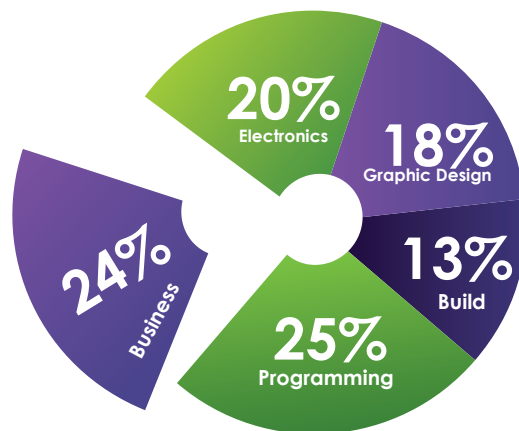


Website Development

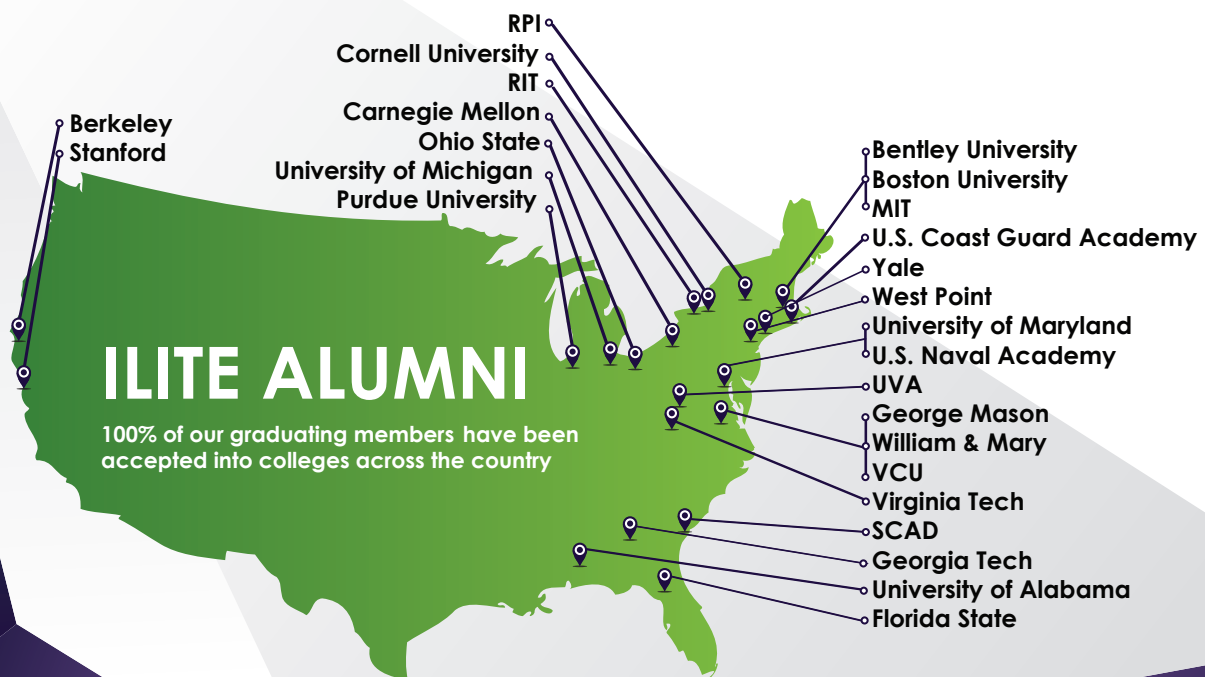
69% 2015-2016



31% 2015-2016



TEAM IMPACT



OUTREACH

Immeasurable Outreach

- ILITE inspires Rosen Publishing to create book series' which focuses on FIRST robotics.
- Demonstrates FIRST robotics in the US Science and Engineering Festival
- ILITE is featured by the US State Department as a model for STEM education in US embassies worldwide
- Team 1885 sends FLL kits to Haitian orphans and teaches them about STEM through Skype calls
- ILITE operates a pen pal program and promotes STEM education in Ethiopia

National Capital Robotics Alliance (NCRA)

- ILITE is fostering the development of the NCRA

STEM Expo

- ILITE hosts a day full of learning through various booths and activities at which kids can interact with STEM
- ILITE showed Dean Kamen's documentary, Slingshot, to which we invited our entire community

More than Robotics

- The team cleaned up the trails and campgrounds of a nearby mountain, Bull Run Conservatory
- ILITE "adopted" a highway and annually cleans and helps to conserve it
- Battlefield High School's sustainability class ran an Energy Audit, documenting the energy inefficiencies and suggested improvements for the school

Political Activism

- ILITE represented FIRST at the US Senate's "Congressional STEM Direction for America" summit
- Congressman Frank Wolf (school visit, recognized achievements in a Congressional Record, invited team to present FIRST in the 112th and 113th United States Congress)
- ILITE spoke about FIRST to the Department of Commerce and the CTE Caucus
- ILITE showcased FIRST at AFCEA's Naval IT Day

Alumni First Volunteering

- Alumni volunteer at over 50% of FIRST Regionals across the country

ILITE's Leadership

- ILITE spent over 200 hours creating an educational FIRST robotics site with the NCRA used by 20 teams

Robotics Curriculum

- Robotics (FRC, FTC, FLL, SeaPerch, ZERO) curricula developed by ILITE is being implemented into the classroom
- Run robotics competitions which increase robotics courses enrollment by 400%
- ILITE beta tests Sky Robotics for MIT, Aurora Flight Sciences, and Aerospace Industries Association

ILITE Jr.

- Mentoring partner program bringing youth into FRC
- Accelerated training program preparing students for FTC and FRC

US STEM Foundation

- ILITE Mentors created the US STEM Foundation to tie industry leaders to FIRST in the DC Metro Area
- ILITE Alumni become active members
- Support and fund numerous FRC, FTC, and FLL teams and events throughout our region

FIRST Mentoring

- 7.8 ILITE mentors mentoring each and every school day
- Started over 60 FIRST Lego League (FLL) teams
- Started and currently mentor 9 FTC teams
- Teams won FTC Worlds 2012, and FTC Innovate, Connect, Winning Alliances, and Division Winner awards at 2014 Virginia Championship along with the Motivate , Think, PTC Design, Innovate, Host, and Winning Alliance Awards

ILITE's STEM Camps

- ILITE hosts Jr. FLL, FLL, FTC, Elementary STEM, SeaPerch Underwater ROV, Programming with Scratch and Alice, Senior Technology, Homeschool FLL , Boy Scout, 3D Printer Manufacturing, and Cyber Defense Camps
- The 3D Printer Camp was so successful, the US Navy enlisted ILITE to deliver this camp at David Taylor Research

FIRST Competitions

- Hosts IROC (ILITE Robotics Offseason Challenge), our fourth annual offseason event in the DC/Metro area with more than 20 FRC teams
- Hosts Northern Virginia FTC Qualifier, a double FTC Qualifier with 48 FTC teams in attendance
- Hosts Haymarket FLL Regional, one of the largest one day Regionals in the country with 48 FLL Teams

STEM Hunger

- ILITE has raised over \$10,000, enough to feed 90 students for a year

FIRST Campaign

- Spreads the message of FIRST to over 9,000 students and teachers in local high schools through discussions and seminars and places information about FIRST in over 150 businesses

Community Events

- ILITE participates in our local Fall Festival, Haymarket Day, Pumpkin Pandemonium, a 5k charity run, Toys for Tots, Military Appreciation Day, Ramps for USA, ForKids, Food & Friends, Gainesville Ruritan events, Project AIMES, Science Fair Judging, and tutoring at local elementary schools
- Members tutor hundreds of students in STEM related courses
- ILITE volunteered at Udvar-Hazy National Air & Space museum's annual "Air & Scare" event serving 10,000 visitors
- ILITE attends and showcases our FRC robot on the field at DC United games as well as engaging attendees with STEM activities and with the robot directly

ILITE Robotics FIRST Team 1885

- Average GPA increase of 0.8 and highest GPA increase of 1.25 for members of ILITE Teams



BENEFITS OF DONATING

Sponsoring ILITE is an outstanding way to give back to the community and help ensure a positive environment for youth to learn about the rewarding benefits of STEM in their lives. Your assistance will help us fulfill our mission – to inspire young people to become leaders in science, technology, engineering and mathematics.

Benefits of sponsorship include:

- Public acknowledgment of your sponsorship
- Tax deductions
- Brand awareness
- All donations go to directly to the sub-team operations of your choice

Forms of donation include:

- Monetary donations
- Contributed advisor support or paid volunteering hours for employees
- Offering of facilities, such as machine shops or storage
- Donation of equipment or software

WHAT WE CAN DO WITH YOUR DONATION

Depending upon the type of donation there are many different ways we can utilize your gift. Simply put, your contribution allows us to continue inspiring young people and field teams. Generally, we use monetary gifts to:

- Purchase materials for the robots, renewable energy studies, cyber security studies and applications
- Pay for competition admission
- Register our teams
- Travel to competitions



SPONSORSHIP LEVELS

\$5,000+
Einstein

Einstein

- Banner at events
- Tickets to US STEM Wine Soiree (2)
- *Tesla*

\$2,500+
Tesla

Tesla

- Company logo on robot
- *Newton*

\$1,000+
Newton

Newton

- Company logo on printed materials
- Framed team photo
- *Curie*

\$500+
Curie

Curie

- Included in sponsorship packet and additional promotional materials
- *Galileo*

\$100+
Galileo

Galileo

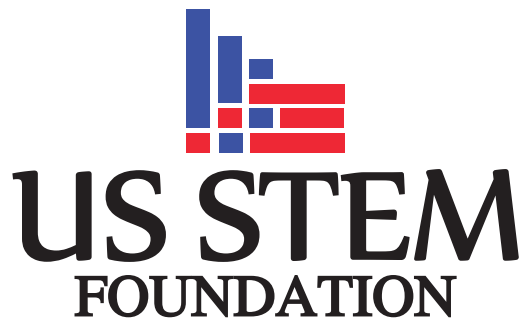
- Personal thank-you letter from the team
- Web/Online promotion

\$25+
Archimedes

Archimedes

- Personal thank-you letter from the team

SPONSORS



L O C K H E E D M A R T I N





SPONSORSHIP FORM

Name of Organization: _____

Contact Name: _____

Address: _____

Phone: _____

Email: _____

My organization would like to become a:

- ☐ Einstein Sponsor (\$5,000+)
- ☐ Tesla Sponsor (\$2,500+)
- ☐ Newton Sponsor (\$1,000+)
- ☐ Curie Sponsor (\$500+)
- ☐ Galileo Sponsor (\$100+)
- ☐ Archimedes Sponsor (\$25+)

Enclosed with this form is a check made out to **US STEM** with **ILITE** in the memo field for

\$ _____

Please mail checks to:
US STEM Foundation
7371 Atlas Walk Way #242
Gainesville, VA 20155

Or donate at:

- US STEM Online Donation: usstem.org/index.php/get-involved/donate
- Benevity: www.benevity.com/

Our company would also like to help by providing:

- ☐ A mentor for the team
- ☐ Access to facilities
(machine shop/storage)
- ☐ Equipment/software

If providing facilities or equipment/
software, please specify:

If you have any questions or need additional information, please contact:
sponsors@iliterobotics.org