



The Flying Toasters

FRC Team 3641

Who are The Flying Toasters?

The Flying Toasters is a competitive High School Robotics team comprised of 9th to 12th grade students from both “South Lyon High School” and “South Lyon East High School” who build robots and compete in FRC competitions not only with teams from Michigan but also with teams from around the world.

What does FRC mean?

FRC stands for “FIRST Robotic Competition” which is an international high school robotics competition program organized and sponsored by FIRST. This program provides an opportunity for both students and Mentors to design, prototype, & build a game playing robot in a 6 week period. The team then uses this robot to compete in several district competitions around the state.



FIRST® Robotics Competition

What is FIRST?



FIRST (an acronym standing for “For Inspiration and Recognition of Science and Technology”) is an international youth organization founded in 1989 by Dean Kamen and Woodie Flowers that operates the 4 following competition programs:

1. Junior FIRST LEGO League
2. FIRST LEGO League
3. FIRST Tech Challenge
4. FIRST Robotics Competition

The organization’s goal is to develop ways to inspire students in engineering and technology fields utilizing the philosophy of competitive competition. The organization expresses these philosophy’s through ideologies it calls “Coopertition” and “Gracious Professionalism”.

If you’re a high school student or parent who’s interested in find out more about who we are or what we do, please come join us at our

2015/2016 South Lyon Robotics Kick-Off Meeting

Date: Monday, September 28, 2015
Time: 5:00 pm – 8:30 pm (students arrive at 5:00 pm, parents arrive at 7:00 pm)
Location: South Lyon East High School, Room #2413 (use entry doors on East side of building)
Address: 52200 10 Mile Road South Lyon, MI 48178
Contact: Ron Weber
Website: www.theflyingtoasters.org



38th out
of 3K
teams
worldwide

SOUTH LYON ROBOTICS

Student Sign-Up Instructions

The following items need to be completed to register to be on this team (Additional instructions below):

- Register for the team via Google forms
- Register for *FIRST* via STIMS
- Complete the *FIRST* consent form on STIMS
- Complete the Student Code of Conduct
- SLCS Participation fee (\$50) due October 19th. Checks payable to your High School and turn into your Main office.
- Robotics Club Fee (\$100) due October 19th. Checks payable to South Lyon Robotics Boosters and turn in to the Booster Treasurer or their designee.

Team Registration via Google Forms

- Follow the instructions at this link: <http://goo.gl/forms/b5qduzU1uf>

FIRST Registration & Consent form via Student Team Information Member System

- Navigate to this link: <https://my.usfirst.org/stims/site.lasso>
- At the right either login as a returning student or click "New Student User"
- Follow instructions once logged in
- When you have completed your registration a confirmation email will be sent to the parent/guardian email address you provided. They need to complete your registration by following the instructions in the email

Team On-Line:

- Navigate to this link: www.theflyingtoasters.org or Google Search TEAM 3641 the Flying Toasters. Parents, check out "Inside the team"





Team Remind Sign Up

<https://www.remind.com/>

If you would like to sign up, please follow the instructions below.

To

81010

Enter this number

This is the Remind number we created to keep your personal number private.

Message

@slro

Text this message

This is the unique class code for FRC Team 3641, the Flying Toasters. Students and parents use this to join the right group.

SOUTH LYON ROBOTICS

Student Code of Conduct

In consideration of my association in activities with regards to FIRST Robotics, including but not limited to participation in competitions, seminars, clinics, exhibitions, programs, or appearances for, on behalf of, or in representation of FRC Team 3641: The Flying Toasters, I,

(Student – Print Name) _____,

(Parent – Print Name) _____,

acknowledge, understand, and agree to abide by this Member Code of Conduct, and hereby pledge to uphold the spirit of this Code of Conduct which offers a general guideline to my conduct. In doing so, I affirm the following:

1. I understand that the team's emails and future Google Groups are the primary means of communication, and will do my best to use it as much as possible.
2. I understand that degradation of other students and/or mentors will not be tolerated, and will do my best to ensure a positive work environment is maintained for everyone.
3. I understand that the use of proper language is required.
4. I understand that my post, emails, and behavior on and off the field not only reflect upon myself, but on the team and sponsors of the team. As such I will act accordingly.
5. I will not participate in any form of romantic relationship with any mentor of the team.
6. I understand that all disciplinary action will be left up to the Lead Mentor & Faculty Adviser, and I will respect their decisions, as they are reflected on my actions.
7. I will come to each meeting/event prepared to learn and with an attitude of gracious professionalism.
8. I will do my best to engage in all meetings that I am present; this includes actively listening to others, and sharing my ideas with the rest of the team.
9. I realize that it is rude to speak when others are speaking, so I will do my best not to talk when others are speaking, and I will do my best not to disrupt meetings by talking out of place or distracting others.
10. I will make safety in the workshop my highest priority, and will wear workshop appropriate clothing and take required safety measures in doing such. (I.e. close-toe shoe, no loose clothing, loose hair tied back, safety glasses).
11. I will not condone the use of, possession of, selling of, or being under the influence of any and all illegal drugs, controlled substances, underage use of alcohol, or tobacco products.





12. I will respect the belongings of others and the team, and will ask permission of the owner before touching or using his or her property.
13. I will promote open and honest communication. I will bring my concerns directly to the responsible party. In the event that lines of communication breakdown I will request a meeting with the lead mentor and Faculty adviser, as well as other involved parties.
14. I understand that there are many tools in the workshop that are very dangerous. If I don't understand how to use a machine/ tool that I was asked to use, I will ask mentors for tips, and follow instructions on how to use the machine/ tool safely.
15. If I do not have a job, I will ask others around me if there is a task to complete or if help is needed. If someone gives me a reasonable task to do, I will complete the job to the best of my abilities.
16. I recognize that this school activity is governed first and foremost by the SLCS Student Code of Conduct in the student handbook. I pledge to uphold all items of that Code during my participation with the club.
17. In situations where a relationship develops or is ongoing between team members, students should follow guidelines outlined in the SLCS student handbook. Furthermore, when students are at competitions and team activities, they should not appear as a couple, but rather as members of the team.
18. I understand it is the responsibility of the students keep parents informed so that parents can pick up their student promptly when a meeting, event, or any function with the robotics within 15 minutes following the ending of said event. I also understand it is irresponsible to place a burden on coach(s) to wait until a parent is able to pick up the student after an event is over. Failure to adhere to this may result in disciplinary action.

Member Code of Conduct Agreement

By signing this document, I agree that I, as a member of Team 3641: The Flying Toasters, having had sufficient opportunity to review this Member Code of Conduct will actively follow the provisions I have agreed to within their intended purpose, meaning, and intention. I understand that failure to do so can and will result in consequences including but not limited to suspension or removal from the team without a refund of my participation fee.

Student's
Signature
Parent's
Signature
Date





SOUTH LYON ROBOTICS

Team Information Sheet

Primary Contacts:

Ronald Weber- Faculty Advisor : weberr@slcs.us 248-573-8700 ext 7779
David Ascher – President, Parent Boosters dascher1267@gmail.com
Manuel Novilla – Treasurer, Parent Boosters manuel.o.novilla@gmail.com

Main Sponsors: FCA Foundation, Cybernet, Henrob, TATA, Spectrum Automation, State of Michigan, TRW, Quality Homes, Artistic Permanent Make-up, Leidos, Snap-on, Lyon Area Rotary, Ferguson Enterprises, Golden Refrigerant, Hitachi, and South Lyon Community Schools.

Meeting Schedule:

September-December: Meetings on Mondays 5-8:30pm; Team building meetings TBD.
January-April: Meetings on Mondays, Wednesdays, Fridays & Saturdays
May-June: Meetings on Mondays & various events
June-August: Meetings TBD.

Attendance:

We strongly encourage students to attend all meetings. However, schoolwork should always come first! Attendance is tracked and if space is limited priority will be given to the students with the best attendance records.

Meeting Locations:

Main Meeting Space: South Lyon EAST High School, 52200 W Ten Mile Rd, South Lyon, MI 48178
Other locations as available - TBD

Costs:

\$100 Robotics Club Fee covers two team shirts, Banquet, Materials & Supplies, Safety Glasses, and Team Building Activities. It does not cover FIRST costs.

Additional fees to cover food, travel, lodging, and other costs associated with the FIRST season.

Please see Mr. Weber if these fees are a problem.

Safety Glasses:

Each student is responsible for bringing their own safety glasses to every meeting and event.

Registration:

To register to be on the team please fill out the form at the following link:

<http://goo.gl/forms/b5qduzU1uf>

We also need students to register at the FIRST website:

<https://my.usfirst.org/stims/Login.aspx>





Behavior:

All members of the team (student & mentor) are expected to treat all other team members, members of other teams, and event staff with the greatest level of respect. We ask that all parents & students read, agree, and sign a copy of our team's Student Code of Conduct. All school rules apply at meetings and events.

Team Google Calendar: <http://bit.ly/1Klhk9W>

Important Websites:

Team: <http://www.theflyingtoasters.org/>

FIRST in Michigan: www.firstinmichigan.org

FIRST: www.usfirst.org

Parent Booster Club: Parents of students are automatically part of the Parent Boosters. Our boosters are always looking for help in coordinating the many needs of the team such as food for meetings, travel & lodging for events, volunteers, sponsorship/fundraising and may other items. Please email dascher1267@gmail.com to see how you can help.

Mentors: The team is incredibly lucky to have a great group of experienced and extremely dedicated mentors. They come to us from many companies such as Ford, Cybernet, and many others and are donating their time to work with the team. If you are interested in helping as a mentor please contact Mr. Weber at: weberr@slcs.us

Official Competitions: Official competitions take place in March and April. The team typically attends two District competitions within the State of Michigan. We usually try to attend one "local" event (an hour drive or less) and a "travel" event; these events take place on Thursday evening, all day Friday and all day Saturday. Based on statewide ranking the team may also advance to the Michigan State Championship and then the FIRST World Championship in St. Louis, Missouri.

Unofficial Competitions: The team attends several unofficial or off-season events throughout the summer & fall months. Our next off-season event is the Bloomfield Girls on November 14th.

Sponsorship/Fundraising:

Our team is always seeking corporate sponsorship and at times participates in fundraising programs to help raise funds to cover the costs associated with the FIRST season. More information will be sent out at our Sponsorship and Fundraising meeting on October 12th at 7pm.

Community Outreach:

Outreach is very important part of our team. We accomplish this in many ways; we work with elementary and middle school robotics programs, organize and run demonstrations of our robot and team at various events, and perform community service and philanthropic events.



Date	Topic
Tuesday, September 08, 2015	First day of School
Wednesday, September 16, 2015	Back to School night SLEHS - 3 to 9pm
Wednesday, September 23, 2015	Back to School night SLHS - 7 to 9pm
Monday, September 28, 2015	Robotics 2016 Team Kick-off-Students
Monday, October 05, 2015	Basic Hand & Power Tools
Monday, October 12, 2015	Sponsorship & Partnerships - PARENT MEETING
Monday, October 19, 2015	Safety
Monday, October 26, 2015	Chairman's
Monday, November 02, 2015	Basic CAD
Tuesday, November 03, 2015	Curriculum Day - No school
Monday, November 09, 2015	Scouting - Prep for Bloomfield Girls
Saturday, November 14, 2015	Bloomfield Girls Competition
Monday, November 16, 2015	Wrap up of Bloomfield Girls
Monday, November 23, 2015	Robot Mechanical
Wednesday, November 25, 2015	Thanksgiving break 25th-27th
Monday, November 30, 2015	Robot Electrical
Monday, December 07, 2015	Basic Programming
Monday, December 14, 2015	Basic Controls - PARENT MEETING
Monday, December 21, 2015	Holiday Break begins
Monday, January 04, 2016	School resume
Monday, January 04, 2016	Pre-Kick-Off Meeting & Sponsorship Due
Saturday, January 09, 2016	Kick off
Monday, January 11, 2016	QFD
Monday, January 18, 2016	Prototype
Monday, January 25, 2016	No Meeting - Exams
Tuesday, January 26, 2016	HS exams 26th-28th
Monday, February 01, 2016	Prototypes & Chassis
Monday, February 08, 2016	Assemble
Monday, February 15, 2016	Winter Break 15th-19th
Monday, February 15, 2016	Program
Monday, February 22, 2016	Crunch Time
Tuesday, February 23, 2016	Bag & Tag
Wednesday, March 16, 2016	Curriculum Day - No school
Friday, March 25, 2016	Good Friday
Monday, April 04, 2016	Spring Break 4th-8th
Wednesday, April 27, 2016	Worlds Championships 27th -30th
Thursday, June 16, 2016	Last Day of school

Workshops: At the Kettering FIRST Robotics Community Center

Contact: Mark Taylor - Kettering Robotic Program Director, 810-762-9855

Presentations will have time to ask questions and many will have activities. Please email mtaylor@kettering.edu the sessions you wish to attend as soon as possible (space may be limited).

Seminar, Presentations:

Awards Oct 10th 10:00 am to 12:00 pm (Andrew Spiece, team 68)- Chairman's (Outreach, Gracious Professionalism (helping other FLL, FTC, FRC teams, Video) Design (How to keep a good Engineering notebook with CAD illustrations) Training students how to talk to judges. Other awards **(Students and Mentors)**

Team organization Oct 10th 12:30 pm to 2:30 pm (Andrew Spiece) Go over how a team is organized (small team, large team)(Team Mentors, Technical Mentors, Student leaders, Students, Parents, Grand Parents, Siblings, Sponsors, Relatives, and Friends.) **(Mentors)**

Robot mechanics Oct 13th 6:00 pm to 8:00 pm (Mark Taylor - Kettering FIRST Center) – Drivetrain, manipulators and arms. Gear and sprocket ratios, mechanical advantage, torque, power curve, wheels and axles. Many examples will be shown. **(Students and Mentors)**

Scouting the competition Oct 17th 10:00 am to 12:00 pm (Andrew Spiece)– Pit Scouting (Gathering information on what the teams say they can do), Qualifying match (How the teams perform in matches) information is needed for each qualifying match to determine game strategies, and to create a pick list. **(Students and Mentors)**

Drive team- Coaching Oct 17th 12:30 pm to 2:30 pm (Andrew Spiece)- Driver 1 and 2, Human Players, and backups. How to train students with one robot, two robots (practice robot)? **(Mentors)**

Robot electronics (Beginning) Oct 20th 6:00 pm to 8:00 pm (Melinda Taylor, Electrical Engineer) - Wiring the RoboRIO, Power Distribution Board, Voltage Regulator Module, motors, pneumatics, sensors, radio, LED, labeling, soldering, stripping. **(Students and Mentors)**. You will help wire part of a robot.

Program the robot in LabVIEW (Beginning) Nov 7th 10:00 am to 12:00 pm (Andrew Watchorn - LabVIEW Presenter): Write and deploy base code to make a robot chassis move and to control motors for an FRC Robots.

Program the robot in LabVIEW (Advanced) Nov 7th 12:30 pm to 2:30 pm (Andrew Watchorn): Write and deploy code for pneumatics, sensors, and LEDs, PID loops will be discussed.

Program the robot in C++ (Beginning) Nov 10th 6:00 pm to 8:00 pm (Kelly and Ryan Fitz-Gerald - Engineers) Write and deploy base code to make a robot chassis move and to control motors for an FRC Robots.

Program the robot in C++ (Advanced) Nov 17th 6:00 pm to 8:00 pm (Kelly and Ryan Fitz-Gerald): Write and deploy code for pneumatics, sensors, and LEDs, PID loops will be discussed.

Program the robot in JAVA (Beginning) Dec 1st 6:00 pm to 8:00 pm (Eric Weber): Write and deploy base code to make a robot chassis move and to control motors for an FRC Robots.

Program the robot in JAVA (Advanced) Dec 8th 6:00 pm to 8:00 pm (Eric Weber): Write and deploy code for pneumatics, sensors, and LEDs, PID loops will be discussed.

Other possible workshops in November, or December: CAD (Inventor), Business Plan, College Scholarship

Questions, contact: Mark Taylor - Kettering Robotic Program Director:
mtaylor@kettering.edu, 810-762-9855