



## **Winners**

**Panther Prowl 2015**

**Orlando Regional 2016**

**South Florida Regional Judge's Award 2017**

**Orlando Regional Imagery Award 2017**

**McArthur High School Robotics Team**

**Mighty Mechanical Mustangs**

**Sponsorship Information**

**2017/18**

# *Our Team!*



## *What is M3?*

Team 4592, "The Mighty Mechanical Mustangs" or M3 for short, is a robotics club at McArthur High School in Hollywood, Florida. We take part in the annual "For Inspiration and Recognition for Science and Technology" FIRST Robotics Competitions. In which we have a 6 week time frame to build, design, and program a fully functioning robot. Our members learn skills in the fields of Science, Technology, Engineering, and Math (STEM), as well as, life skills such as communication, useful business practices, and project management through FRC. By teaching our members these life skills, we set up students for success in more than just the engineering field. We rely on generous donations from sponsors to help our members become future leaders.

# Team Structure



Business Team

Design Team

Build Team

Programming Team

To make our robotics club as efficient as possible, members are divided into one of several subdivisions. The subdivisions are Programming, Build, Design, and Business. Students select the subdivision they believe is closest to the major they wish to pursue. By heading, or participating in, one of these subdivisions, students learn how to efficiently work as a team. Each specialized team contributes to Team 4592 with their specific responsibilities. They are also guided and assisted by the faculty and mentors. Community partners of Team 4592 further assist by providing mentoring, funding, materials.

## *MB Forms Opportunities for Students To*

- Work in an environment similar to the real world
- Work and learn from professional engineers
- Qualify for over \$50 million in college scholarships
- Learn how to use cutting-edge industry hardware and software applications

# *What is* **FIRST?**



Founded in 1989 by Dean Kamen, FIRST was created to address the lack of support and interest in science and technology in society and the media. FIRST used STEM to appeal to children, as well as, inspire them to begin careers in the STEM fields. FIRST does not exist solely to promote STEM; rather, it uses STEM as a means to teach students life skills and leadership.

## *Why* **FIRST Robotics?**

### FIRST Students Are

- Eligible for over \$50 million in Scholarships
- Four times more likely to pursue a career in engineering.
- Nine times more likely to have an internship in their freshman year of college.
- Over two times more likely to volunteer in their community.
- Three times more likely to major in engineering.

M3 members do far more than build robots! Members go to sponsorship meetings, create all of our documentation, help manage finances, assist in scheduling appointments with various events, and research future events to attend. The skill set taught by M3 can be applied to more than STEM.

# Accomplishments

Despite its young age, M3 has already shown promise for the future, having made it to the elimination rounds of the FIRST South Florida Regional Competition 5 years in a row and 2 years in a row at the FIRST Orlando Regional, and qualified to attend the World Championships 2 years in a row. The team has gone from a team not so well-known to a team that is now well respected in South Florida. Each year has been an improvement upon itself as the team grows.

Year	Event	Ranking	Achievement
2013	South Florida Regional	22	Semi-finals
2014	Orlando Regional	39	Qualification
	South Florida Regional	6	Semi-finals
2015	South Florida Regional	20	Quarterfinals
	Bayou Regional	14	Qualification
2016	Panther Prowl	16	Winners
	Orlando Regional	17	Winners
	South Florida Regional	3	Quarterfinals
	World Championships	60	Qualification
2017	South Florida Regional	23	Quarterfinals Judge's Award
	Orlando Regional	18	Semifinals Imagery Award
	Bayou Regional	4	Semifinals
	World Championships	6	Quarterfinals

# Our Robots

## Julia:

Featured a 4 wheel tank drive, a pneumatic system for climbing, and a dumping mechanism for the 2013 FRC game, "Aerial Assist."

Fairly competitive, being picked by an alliance in the South Florida Regional and



## Frankenbot:

Features a 6 wheel tank drive, an electronically limited and controlled turret, and an innovative shooting system.

The 6th seeded robot in the 2014 South Florida Regional.



## Hellhound / Stack It Steven:

This split personality robot features an elevator to grab totes using one of three arms. Capable of adapting to any situation by switching these arms.

Winner of the 2015 Panther Prowl off-season



## Atom:

Equipped with an intake, shooter, and 6 wheel drive train. Capable of intaking and shooting the ball into the goal.

Winner of the 2016 Orlando Regional, which led the team to the World Championships in St. Louis, Missouri.



## Julia 3.0

Features a 6 wheel drive train with dual speed gearboxes with speeds of 16 ft/s and 5ft/s. Capable of intaking gears from the floor and delivering them to the peg. Also able to climb the rope in 1-3 seconds.

At the South Florida Regional, we ranked 23rd, played into the quarterfinals, and won the 2017 Judge's Award.

At the Orlando Regional, we ranked 18th, played into the semifinals, and won the 2017 Imagery Award.

At the Bayou Regional, we ranked 4th and played into the semifinals

At the World Championships, we ranked 6th and played into the quarterfinals.



# *Sponsorship!*



## *Shape the Future*

By sponsoring M3, you are doing more than allowing high school students to build robots; you are constructing the path for generations to come. Your investment will help M3, as well as FIRST as a whole, grow and promote the STEM fields. Your company's sponsorship will help not only create the next generation of engineers and scientists, but also help to encourage those fields to more local students. This will result in more highly skilled and experienced job seekers, which local companies will be in demand for in the near future.

"You have teenagers thinking they're going to make millions as NBA stars when that's not realistic for even 1 percent of them. Becoming a scientist or engineer is."

-Dean Kamen Co-founder of FIRST



# *Rewards and Benefits*

In addition to helping create a world and society in which STEM is truly appreciated, sponsors of M3 receive physical and digital rewards based on the amount donated. These rewards include but are not limited to:

- Acknowledgement on our T shirt
- Acknowledgement on our website
- Acknowledgement on our robot(s)
- A customized plaque in your honor

Your company's logo and name will be advertised in national and local events, and may be shown in local, digital, and national media.

Sponsors are invited to join us at our annual banquet, and visit our school and workshop. Sponsors may also request our presence for presentations or events.

M3 works outside of the normal season too! In the off-season, M3 attends events such as DARPA's Robotics Challenge and Apollo Middle School's Rocket Night. In addition to attending events, M3 builds additional robots in the post-season as demonstrations for sponsors. This insures that M3 members learn STEM, and non STEM, skills year long.

# *Sponsor Us!*

## *Platinum*

If you provide \$5000+ in money, goods, or services, you will receive:

- Acknowledgement in team name at competitions
- A customized plaque for your company
- All gold level and below benefits

## *Gold*

If you provide \$1000+ in money, good or services, you will receive:

- Large logo on robot
- Your company logo on our website
- A plaque for your company
- All silver and bronze benefits

## *Silver*

If you provide \$500+ in money, goods, or services, you will receive:

- Medium sized logo on club T-shirt
- Your company name on our website
- All bronze level benefits

## *Bronze*

If you provide \$250+ in money, goods, or services, you will receive:

- Your company's name on our club T-shirt

Our team conducts fundraising activities throughout the year not only to supplement costs, but to give students the experience in managing activities involving sales. We have a Christmas fundraiser where we produce and sell laser engraved Christmas ornaments and dog tags. Team shirts are also available for purchase.

# *Visit us*

Web:

<http://www.m3robo.com>

Facebook:

<http://www.facebook.com/m3robo>

Twitter:

<http://www.twitter.com/m3robo>

Instagram:

<http://www.instagram.com/m3robo>

Youtube:

<http://www.youtube.com/m3robo>

# *Contact Us*

For more information about M3, or for potential sponsorship, please contact us at either of the below emails.

Head mentor: Robert Derrick  
[robert.derrick@browardschools.com](mailto:robert.derrick@browardschools.com)

Mechanical Engineer Mentor: Ron Callis Jr.  
[ron@onefirefly.com](mailto:ron@onefirefly.com)

Business Mentor: Teresa Telles  
[abranandteresa@yahoo.com](mailto:abranandteresa@yahoo.com)

# M3 Wishes You A Great Season!

