

ENIGMA TEAM INFO

ABOUT

We wish for others to really get to know our team and what we are about, promoting a clear mission, thus we share our team summary, our team history, and team bios. We also love our sponsors and want to give them a huge shout out; we couldn't do it without them!

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THANK YOU TO OUR SPONSORS!



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TEAM SUMMARY

Enigma is a community-driven, practical learning experience led by volunteer coaches, mentors and parents for students interested in STEM and robotics in general. Our team is made up of public schooled, private schooled and homeschooled students from the Albuquerque and Rio Rancho areas of New Mexico. We are currently in our rookie year, with 11 students. Two of our students have had experience with FLL, and another two have had experience in FTC and FRC, and the rest of us are new to the program. We also currently have 2 coaches and 3 mentors. Our team strives to be a family and to steward the resources entrusted to us to help grow students in their interests and abilities in STEM fields, their problem-solving and group-work skills, and their business and presentation skills. Although it is our rookie year, we are eager to make a difference and to grow FIRST in New Mexico as much as possible!

MISSION STATEMENT

Who are we? **FAMILY**; What do we do? **HAVE FUN, BUILD ROBOTS, HELP OTHERS, LEARN**. How do we do it? **TEAMWORK!**

The mission of *FIRST*® is to inspire young people to be science and technology leaders and innovators, by engaging them in exciting mentor-based programs that build science, engineering, and technology skills, that inspire innovation, and that foster well-rounded life capabilities including self-confidence, communication, and leadership. –FIRST® website (www.usfirst.org)

It is our desire to help students thrive in a world of technology and business, and ultimately create mentors that will carry on the torch to the next generation of students. -**ENIGMA FTC 16265**

TEAM HISTORY

Although we are a rookie team, four of our members have had experience in FIRST before. Madelene was on the FTC team the **AHERT Ravens** which unfortunately did not advance past one season. She wanted to continue with FTC by helping to create a new team called **Biohazard Robotics Detail**, where she and Isabel became teammates. This team was quite successful, winning Inspire and qualifying for state in its rookie year. The next season they qualified for state again and advanced to the division finals, racking up 14 awards in total! Isabel and Madelene have also been on an FRC team called **Zia Robotics** for the past 3 years! Jenna and Ema were on a successful FLL team called the **Radioactive Jellyfish**, which advanced to states 2 times and won a robot design award. After the 2018-19 season ended, Isabel and Madelene decided to start their own FTC team to assist New Mexico in becoming its own FTC region. Ema and Jenna also happened to age out of FLL, and Ema knew Isabel, so they decided to join the newly formed Enigma. Together, the 4 four girls recruited the other 7 team members through various outreach events.

HOW WE ACHIEVE OUR GOALS

As a rookie team this season, we have set very high goals and standards for our team. We believe that if we form a strong foundation for our first year, we will grow exponentially in all areas in seasons to come. A huge part of this is defining how we will complete our goals. Thus, we achieve our goals in three ways: **INDIVIDUAL & TEAM BUILDING | ROBOTICS ENGINEERING | COMMUNITY ENGAGEMENT**. With these three focuses, we believe we can build a very strong, competitive, and impactful team! Our **sustainability plan, timeline, goals and action plan, team achievements, SWOT analysis** are all outlined in our **business plan**.



TEAM BIOS



NAME: Ema

AGE: 14

YEARS OF FIRST EXPERIENCE: 2

ROLES:

- Build Team
- Photography Team- Video editing
- Fundraising/Outreach Team

Howdy! I'm an 8th grader at Albuquerque Academy. I started doing robotics when Jenna and I made an FLL robotics team called "The Radioactive Jellyfish" two years ago.

This is my first year on an FTC team, and I am really excited to be doing this! I have had a lot of fun so far working with my teammates and building the robot. I mainly end up working on building the robot, helping make choices about the design, and things like that.

FIRST has taught me a lot. I've never been a very confident speaker or social person, but being in the FIRST program had helped me improve upon those skills, as well as be able to talk to people in a more businesslike situation, how to successfully fundraise and ask for sponsors, and, my personal favorite, using power tools and making a successful robot! So far, my whole experience in the FIRST program has been incredibly fun and rewarding. All in all, FIRST is super fun and I am so glad I joined!



NAME: Felix

AGE: 14

YEARS OF FIRST EXPERIENCE: 0

ROLES:

- Build Team

Hi! I am a home-schooled 9th grader. I live in Albuquerque, New Mexico. This is my first year being a part of FIRST. I love robotics even though I have just started!

When I am not at a meeting I enjoy camping, hunting, fishing, and sports.

Before I joined Enigma I had no idea what FIRST was but when I found out about it I was super excited to join, I've had a lot of fun working on the robot and I really enjoy the program.



NAME: Gray

AGE: 14

YEARS OF FIRST EXPERIENCE: 0

ROLES:

- Driver 1
- Build Team
- Programming Team
- Fundraising/Outreach Team

I am a homeschooled 8th grader who lives in Rio Rancho, New Mexico. This is my first year doing anything remotely close to robotics and I've developed a huge passion for it. I am currently a driver, on the build team, and I would like to start programming!

I was introduced to FIRST robotics from a game development class I took in 2018 and one day our teacher decided to show us an FRC competition and when he explained the concept to me I was very interested in the program! Then he invited me to an outreach event at the natural history museum and introduced me to team Enigma 16265! When I first met the team, I had noticed the team was tightly bonded and hardworking. I figured that this would also be a good opportunity for me to learn the effort of teamwork along learning engineering and programming.

Before I did robotics I was playing video games and I'd occasionally build and program games. I already had experience with programming from a game development engine but used a lesser-known language of code. I figured it would be better to learn more frequently used languages of code. Now robotics is my main hobby and has taught me so much and I'm very happy I decided to do FIRST robotics!



NAME: Isabel

AGE: 15

YEARS OF FIRST EXPERIENCE: 3

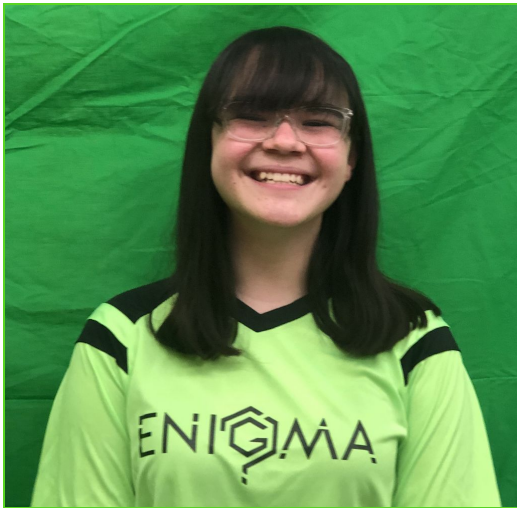
ROLES:

- Co-Captain
- Driver 2
- Build Team
- Code/Electrical Lead
- Managerial lead
- Fundraising/Outreach team

Hello! I am a home-schooled sophomore from Taylor Ranch in Albuquerque, New Mexico. I enjoy robotics, of course, playing video games, and even school. I have been involved in FIRST for four years: one year in Jr. FLL, and three years in FTC and FRC.

I was previously on an FTC team called BioHazard Robotics Detail, but decided to start my own team this year! On my past teams, I have taken the roles of lead builder, graphic designer, and driver. This year I am co-captain, electrical/programming lead, managerial lead, and driver. I have mainly worked on designing, building, and programming the robot, and have also worked on the engineering notebook and fundraising; I also designed the team logo! FIRST has taught me so much I don't even know where to begin.

I have learned how to work well on a team, in addition to leadership skills, taking a loss well, fundraising, building, and programming. These are all skills that I know will help me out for the rest of my life, and I am extremely grateful to FIRST for that!



NAME: Jenna

AGE: 14

YEARS OF FIRST EXPERIENCE: 6

ROLES:

- Fundraising/Outreach Lead
- Photography Lead
- Drive coach
- Game manual specialist
- Build Team

Hi! I'm a sophomore at Sandia High School in Albuquerque, New Mexico. I have been a part of FIRST robotics since I was in third grade, competing in FLL until just this year, which is my first year in FTC. I have loved robotics since my first team, the Lightning Bolts, and I'm still learning new things! I am very involved in my school and I often volunteer to help plan and manage events. I joined the Sandia Student Senate and was elected the sophomore class vice president at Sandia. I love to dance and be involved in my community.

I want to go to school for chemical engineering and my goals include getting a patent and learning more about the future in gene editing, specifically CRISPR technology. FIRST has helped me move towards goals like these by teaching me how to work with a team, anticipate and solve new problems, and work with others to create cool new stuff. I have been on two person teams before, so I've done most of the roles that you encounter in FLL. This year I am the drive coach, the fundraising/outreach lead, the photography/videography lead, and the game manual specialist, along with being on the build team. I have found that roles like these both in the past and now have helped me develop my speaking and leadership skills that I can use in the other areas of my life as well.



NAME: George

AGE: 13

YEARS OF FIRST EXPERIENCE: 0

ROLES:

- Scouting Lead
- Treasurer
- Build Team
- Programming Team
- Fundraising/Outreach Team

I'm a 7th grader who has been homeschooled all my life and lives in Albuquerque, New Mexico.

I found out about FIRST robotics from Coach Lisa who attends my church, who invited me to a recruiting meeting for the team at my church. A month later I joined the team. This is my first time doing robotics and I'm really enjoying it.

I am the scouting lead for the team and am also on the programming and build team. I love working on the robot and can't wait for the competition.



NAME: Kinsley

AGE: 12

YEARS OF FIRST EXPERIENCE: 0

ROLES:

- Team Look/Media Lead
- Photography Team
- Human Player
- Code/Electrical Team

Hey! I am a homeschooled 6th grader who lives in Rio Rancho, New Mexico. This is my rookie year in FIRST so far, and it has been a lovely experience! I enjoy digital art, photography, anime, and robotics.

FIRST has been a great learning experience for me, as I love the concept, especially Gracious Professionalism. I personally recommend FIRST to anyone who'd like to be an engineer.. It's a really pleasant experience that teaches you some very important life skills, such as public speaking, math, using power tools safely, and socializing. I myself have met some very amazing people through the program so far, and I am so thankful for all of them!

As of my team role this year, I am currently the photographer, the Human Player, and the team also requests me to solder wires and servo test. I cherish the fact that FIRST is teaching me incredibly valuable life skills that can help me get a high paying job, and a successful career.



NAME: Madelene

AGE: 17

YEARS OF FIRST EXPERIENCE: 4

ROLES:

- Co-Captain
- Build lead
- Safety Captain
- Fundraising/Outreach Team

I live in Albuquerque, New Mexico and I'm a Junior in high school. I love drawing, writing, building, and robotics!

I have been participating with FIRST for four years, beginning with FTC in the velocity vortex season. I was previously on two FTC teams, the first one being the AHERT Ravens which I was with for one year before starting the second team, called BioHazard Robotics Detail. This year I decided to assist in starting this new team to help New Mexico become its own region. I am also on the FRC team Zia Robotics, being one of its founding members when it began in the FIRST Power Up season. On all my teams, which have been remarkably small, I've taken on the role as a lead builder and occasionally a driver.

This year I am co-captain and building lead. I have mainly worked on designing and building the robot while I have also done a great deal of work in fundraising and writing various papers and presentations. I am incredibly grateful for all my mentors who have taught me everything I know and to FIRST for bringing us together! FIRST has had an incredible impact on my life by helping me to discover my love for building.



NAME: Michael

AGE: 15

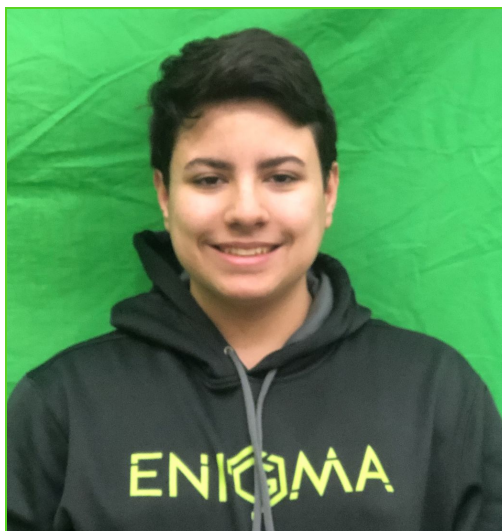
YEARS OF FIRST EXPERIENCE: 0

ROLES:

- Build Team
- Scouting Team
- Programming Team

I'm fifteen, I live in Albuquerque and I'm a sophomore in school. I'm very creative; I like building with Legos and playing Minecraft.

I do enjoy being on this team and I've never been on a robotics team or in FTC competitions before. I want to be a programmer and engineer. I like 3D printing things for the team. I also build Lego boxes for the alliance partners. I don't have a favorite tool, but I do like helping out on the team. Sometimes I can't make it to some of the meetings and it's a little sad, but it's ok. That's me.



NAME: Tazz

AGE: 15

ROLES:

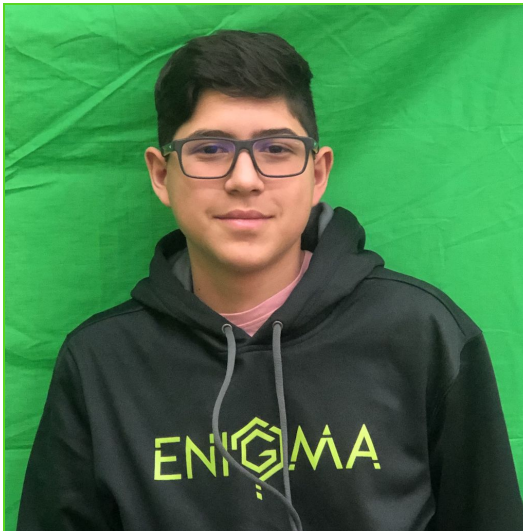
- Fundraising/Outreach Team
- Marketing Lead
- Building Team
- Presentation Team

YEARS OF FIRST EXPERIENCE: 1

Hi, let me tell you a bit about my life. My name is Mutazz Jaber. I am a Palistinian American and I'm 15 years old. I live in Albuquerque, New Mexico. I am a sophomore that attends La Cueva High school.

I'm the youngest of 9 and I love all of my family. Some of the things I enjoy doing are singing, social media, and playing video games. This is my first year in FTC but I was on a FLL team for a year and we made it all the way to internationals.

Although this is my first year in FTC my older siblings did it and they also made it to Worlds. I'm excited to figure out what FIRST has in store for me. That's my story!!



NAME: Tytus

AGE: 16

YEARS OF FIRST EXPERIENCE: 0

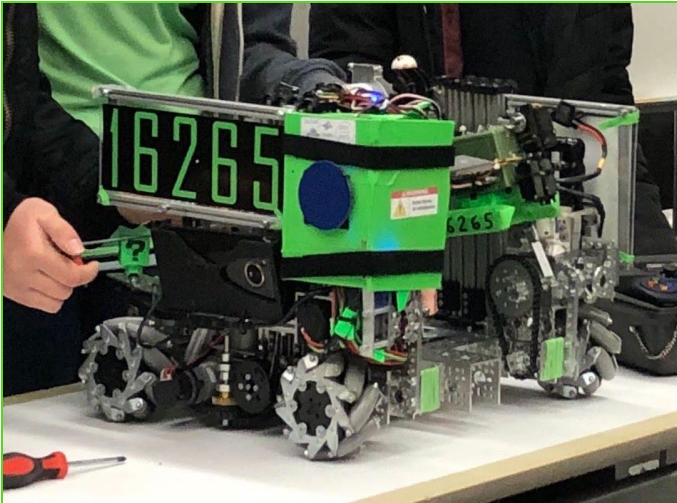
ROLES:

- Build Team

I'm a homeschooled sophomore who lives in Albuquerque, New Mexico. This is my first year doing robotics with FIRST. From my team I have learned how to use different types of power tools safely and how to approach problems from a different angle.

I heard about FIRST through coach Russ at the outreach at Next-Gen Academy. I'd had never seen anything like this before and immediately wanted to join team Enigma. At our first meeting I was a little intimidated because the other students had a more technical background, but I continued to attend meetings and learn new skills.

When I'm not at a meeting I enjoy playing video games, social media, and hanging out with friends.



NAME: Robotiana

Hi! I am Enigma's robot, Robotiana. I love to wear my wires in pigtails. My favorite shade of nail polish to use to seal fraying string is Off Tropic, and I also have a really cute skirt(side shields)! I love the color green and long drives by the beach. I can stack up to 11 blocks to make a skyscraper, but I usually will stack about 5-9 in a match, plus my team's capstone. Gotta get that bread. I am only a few months old, but I feel like I was built for this.



COACH RUSS

I am a lifetime New Mexico resident and have been a serial entrepreneur for 30 years. Beginning in 1989 through 1999 my family and I owned and operated 4 restaurant locations in downtown Albuquerque. For the years 2K through the present I've owned and operated a number of tech companies with a few being Wireless Network Integration Systems, TechsRx Computer Services, and am currently operating Digital Bread, LLC (web development) and Avitrio, LLC (Software as a Service (SAAS)). I have most recently gained a passion for robotics through my daughter Isabel's

zeal for the same. Together we have started Applied Dynamics Initiative, a 501c(3) organization whose mission is "To spark an interest and nurture a passion in students for participation in the fields of Science, Technology, Engineering, Entrepreneurship & Mathematics." via educational classes and extracurricular activities.



COACH LISA

I am an aerospace engineer, and former math teacher who works optimizing trajectories for hypersonic vehicles at Sandia National Labs. I have Masters' and Bachelors' degrees in Aerospace Engineering from Georgia Tech. Ema Bueno, a team member, is the second of my four children. I was introduced to FIRST by Jenna Essenmacher, who was a student of mine when I taught middle and high school mathematics. I coached Ema and Jenna's FLL team for two years. This is my first year coaching an FTC team. I love this team because it is balanced between male and female students, with capable, female leadership. It encourages and inspires me to see these young

ladies excited about power tools, motors, coding, and design.



MENTOR JAMES

I am the production director for Silent Falcon UAS Technologies, a drone company based in Albuquerque, New Mexico. I'm an FRC Alumni from Team 2537 Space Raiders out of Columbia, Maryland, a former mentor for 2 FRC teams, and a long term competition volunteer. This is my first year coaching an FTC team, and I have been loving the unique challenges that go with it.



MENTOR RENZO

I am a research engineer at Sandia National Labs with over 35 years experience in energetic materials testing. I have been a volunteer, parent, coach, and mentor for FIRST FTC and FRC teams for over 7 years. I enjoy working with this next generation of STEM youth.

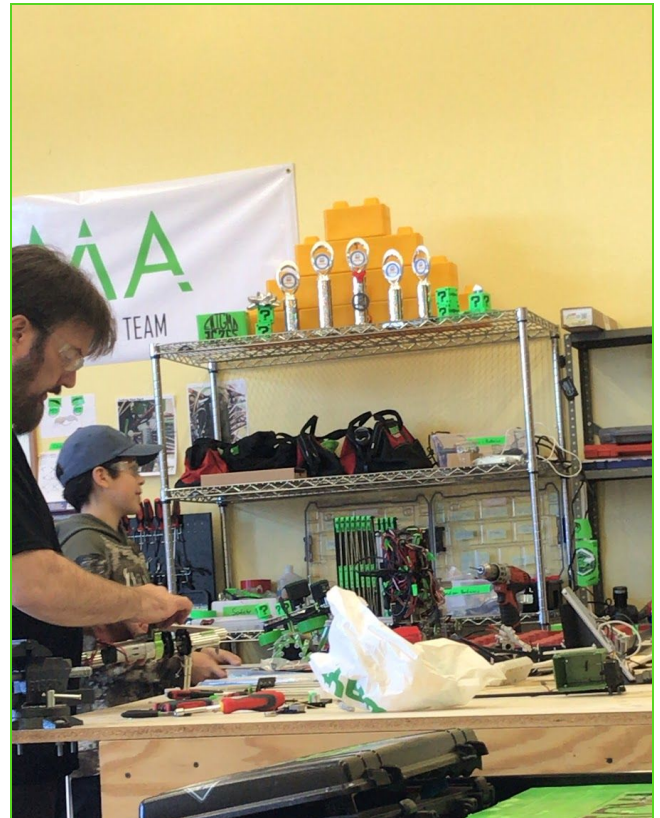
OUR SHOP



We work on our robot in a space in a strip mall. This gives our team good visibility. One of our team members joined because of seeing us work through the shop windows.

Our shop has many tools, including a band saw, a soldering iron, and a power drill. We have two large work tables and a conference room for meetings.

We have a white board on which we take notes during the meeting new can also use it to sketch ideas. When the meeting is over, two students are assigned to do meeting reflections. They can use the whiteboard notes to help with that.



ENIGMA FUN FACTS

- ? Our robot is named Robotiana.
- ? George wears a green hat to our competitions and collects teams' buttons to put on it.
- ? We have a green fuzzy worm on a string named Gerard that lives in our driver station.
- ? Because this year's theme is Star Wars, we have mounted BB-8 right behind our measuring tape.
- ? Three of our team members are on an FRC team called 6974 Zia Robotics.
- ? Seven of our team members are homeschooled.
- ? We have a TV in our workshop and will sometimes watch movies and other FTC tournaments while we work!
- ? Our robot has not only a competition cart, but it also has a custom-made travel container with LED lights.
- ? We like to design our robot with green sharpie! For example, we sharpied the rims of our mecanum wheels and the metal plating on our intake.
- ? We 3D printed Super Mario Question Cubes and put them on the axles of our intake for decoration!
- ? We have made it to or past the semi-finals at every qualifying tournament we've attended!
- ? We accidentally won the Inspire Award at 2 qualifying tournaments! The judges did not know that a team couldn't win Inspire twice. Therefore, we exchanged our Inspire Award with team #11054 Brain Hackers Robotics for the Think Award!
- ? We bring our printer to every competition just in case we need something printed at the last minute!
- ? We have a huge roll of green tape that we regularly doodle art on and tape it on our competition cart!
- ? Our Coach, Lisa, has a baby named Bradley, so the team calls him Coach Bradley.
- ? We designed a deck of STEM playing cards.
- ? If we like someone we say, "You're on the list."