2023 CHARGED UP Season

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A MESSAGE OF APPRECIATION

“ENIGMA 9080 would not be the team we are without the support of our sponsors. Your investment does far more than help us buy robot parts, tools, registration, and travel support. It gives students the opportunity to discover engineering, programming, design, leadership, communication, and problem-solving in a real-world environment.

Because of your support, our students are able to build competitive robots, mentor younger teams, volunteer in the community, represent New Mexico at regional events, and grow into confident leaders. You help make it possible for students to take an idea from a sketch, to CAD, to fabrication, to competition, and along the way learn lessons that will stay with them far beyond robotics.

This season, your support helped ENIGMA continue building a stronger foundation for the future through new equipment, improved pit organization, outreach events, team mentorship, and hands-on STEM opportunities for students across multiple FIRST programs. Every match we play, every student we mentor, every robot we demo, and every problem we solve is connected to the generosity of people and organizations who believe in our mission.

Thank you for believing in our students, our team, and the future of STEM in New Mexico. Your partnership helps us build more than robots; it helps us build confidence, character, community, and the next generation of innovators.”

Deavin G. Felix M. Gray S. Hailey W. Kathryn T. Luke C. Miranda G. Noah L. Peter F.

Zacheriah J. Russell M. Rey Z. Noah S. Renzo D. Isabel M. Maddyne C.

About FRC ENIGMA 9080

Enigma's first FRC season was Charged Up 2023. We are a community team located in Albuquerque, New Mexico. We are currently growing our team and actively recruiting new members from grades 8-12. Our goal is to establish ourselves as helpful alliance members. We work hard at having fun and learning the concepts of STEAM education as we build really cool and effective robots. We are FRC Team 9080 ENIGMA

By the Numbers

10
Student Team Members

3
Official Events

16–23
Official Season Record

3 Awards
Rookie All-Star, Highest Seeded Rookie, Team Spirit

78th
FIRST in Texas District

38th
Apollo Division Ranking

1-1
Custom FRC-Scale Linear Slide / Wood Deck Turrett

=[a]
New Workshop / Teen Tech Center

Connect with the team

Instagram: https://instagram.com/enigma.robotics
YouTube: https://www.youtube.com/channel/UCziMRJj5j_hRYlwlJgXOjoQ
Facebook: https://www.facebook.com/enigma.robotics.program
Team Website: https://enigmafrc.com

Students

Deavin G.

- Builder
- Fabricator
- Wiring & Soldering
- Electronics
- Team Spirit
- Skilled Bandsaw
- Skilled CNC Mill
- Outreach
- Fundraising

Felix M.

- Team Co-Captain
- Builder
- Fabricator
- Driver Mechanisms
- Drive Team
- Wiring & Soldering
- Electronics
- Skilled CNC Mill
- Skilled Bandsaw
- Assembly
- Design & Prototype
- Founding Member
- Game Manual Expert
- Judging Awards
- Team Spirit
- Technician

Gray S.

- Team Co-Captain
- CAD Designer
- Builder
- Drive Team
- Driver Chassis
- Wiring & Soldering
- Outreach
- Electronics
- Founding Member
- Design & Prototype
- Team Spirit
- Fundraising
- Judging Awards
- Game Manual Expert
- Fabricator
- Assembly
- Rookie Year

Hailey W.

- Builder
- Fabricator
- Drive Team
- Driver Mechanisms
- Technician
- Wiring & Soldering
- Electronics
- Graphic Designer
- Team Spirit
- Founding Member
- Assembly
- Learning Java Code
- Team Media
- Game Manual Expert
- Design & Prototype

Kaitlynn F.

- Team Media
- Team Spirit
- Judging Awards
- Game Manual Expert
- Graphic Designer
- Social Media
- Outreach
- Fundraising

Luke C.

- Builder
- Fabricator
- Technician
- Assembly
- Fundraising
- Design & Prototype
- Game Manual Expert
- Judging Awards
- Founding Member
- Team Spirit
- Outreach
- Skilled CNC Mill
- Skilled Bandsaw
- Skilled 3D Prints
- Wiring & Soldering
- Electronics
- Rookie Year
- Driver Chassis
- Drive Team

Miranda G.

- Design & Prototype
- Founding Member
- Team Spirit
- Outreach
- Fundraising
- Social Media
- Game Manual Expert

Nora L.

- Builder
- Fabricator
- Skilled CNC Mill
- Skilled Bandsaw
- Assembly
- Learning Java Code
- Wiring & Soldering
- Electronics
- Founding Member

Peter F.

- Game Manual Expert
- Judging Awards
- Founding Member
- Design & Prototype
- Team Spirit
- Team Media
- Rookie Year
- Assembly
- Skilled Bandsaw
- Outreach
- Fundraising
- Drive Team
- Drive Coach
- Builder
- Fabricator
- Skilled 3D Prints
- Wiring & Soldering
- Electronics

Zacheriah J.

- Skilled Java Coder
- Skilled Vision Coder
- Skilled Autonomous Pathing
- Electronics
- Drive Team
- Technician
- Outreach
- Fundraising
- Learning Java Code
- Rookie Year
- Team Spirit

Coaches and mentors

BLUE HALO

G

Gabriella C.
Grant Liaison

FRC ENIGMA 9080

Russell M.
Coach #1

- Shop Admin
- Build & Fabrication
- Java Programming
- Wiring and Electronics
- Quality Control
- Machine Training
- Systems Mentor
- Design
- Game Strategy
- 3D Prints Mentor
- Robotics Control Systems
- Robotics Ambassador
- CAD Training
- Mechanical Engineering

Rey J.
Mentor

- Java Programming
- FRC WPI Programming
- Game Strategy
- Quality Control
- Robotics Control Systems
- Systems Mentor

Noah S.
Mentor

- FIRST Alumni
- Media Production
- Design
- Wiring and Electronics
- Quality Control
- Robotics Ambassador
- Game Strategy
- Robotics Control Systems
- Mechanical Engineering
- Build & Fabrication
- Systems Mentor

Renzo D.

Mentor

- Systems Mentor
- Electrical Engineering
- Build & Fabrication
- Wiring and Electronics
- Quality Control
- Robotics Ambassador
- Game Strategy
- Mechanical Engineering
- Design
- Robotics Control Systems

Isabel M.

Mentor

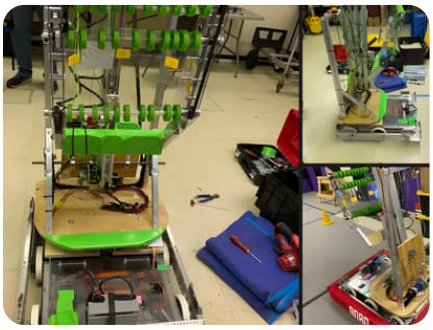
- Robot Driving
- Build & Fabrication
- Java Programming
- Quality Control
- Game Strategy
- Robotics Ambassador
- Robotics Control Systems
- Applied Mathematics
- Computer Science
- Systems Mentor
- Design
- FIRST Alumni
- FRC WPI Programming

Madelene C.

Mentor

- Team Administrator
- Safety Coordinator
- Build & Fabrication
- Wiring and Electronics
- Quality Control
- Machine Training
- FIRST Alumni
- Systems Mentor
- Design
- Media Production

Robot showcase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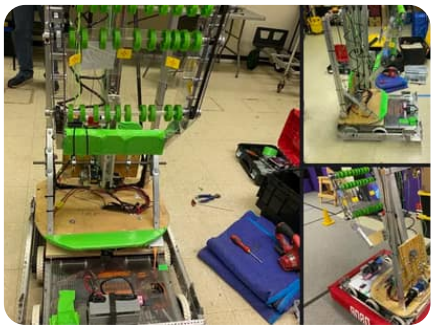
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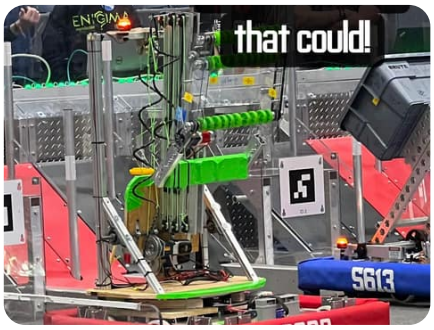

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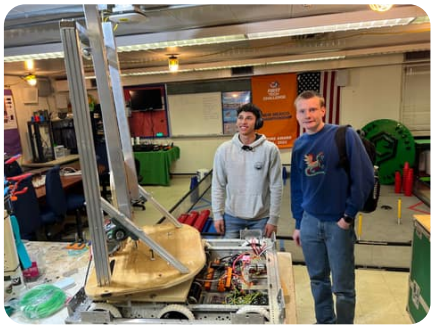
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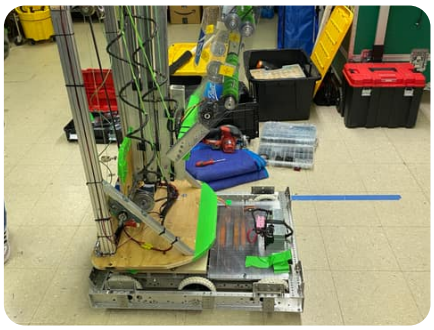
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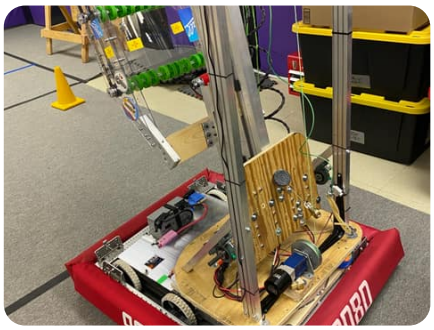
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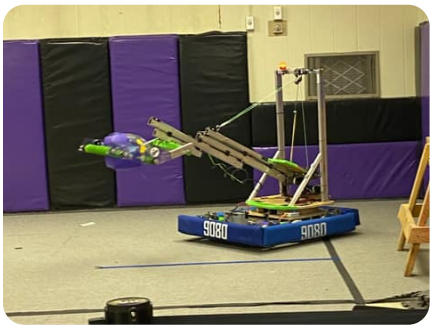
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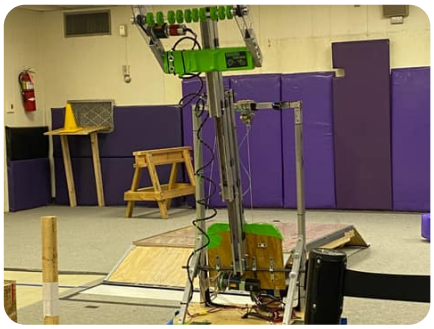
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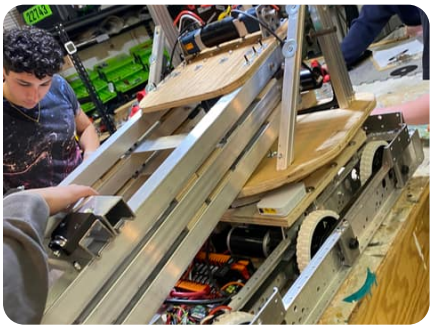

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Year in review

Charged Up · Robot: Thranduil

Total hours invested: 1,800

OUR SEASON

Expanding ENIGMA Into FRCBefore 2023, ENIGMA's primary competition program was FTC Team 16265.

The FTC team had already developed experience in:
Robot design
Java programming
CAD
3D printing
Fabrication
Outreach
Judging
Fundraising
Drive-team strategy
Mentoring
Gracious Professionalism
Competition travel
Creating FRC Team 9080 allowed students to apply those skills at a dramatically larger scale.

An FTC robot can be carried by one or two students. An FRC robot can weigh well over 100 pounds and requires larger motors, heavier structure, more powerful electrical systems, and industrial-style mechanisms.

The students were entering a program in which:
The robot was much larger.
The electrical system operated at far higher current.
Components were more expensive.
Fabrication required larger tools.
Travel was more complicated.
Competition fields were bigger.
Alliances included three teams.
Matches involved more contact.
Pit repairs required greater organization.
Student roles became more specialized.
The transition was intimidating, but the team did not begin from zero. FTC had taught the students how to learn.
A New Home at the Teen Tech CenterThe formation of Team 9080 was closely tied to ENIGMA's move into the Teen Tech Center at Manzano High School.

Before the move, Coach Russ's garage served as the FTC team's workshop.

That space had supported years of student growth, but it was not large enough for a sustainable FRC program. FRC required room for:
A full-size robot
Long structural materials
Large worktables
Battery storage
Power tools
Electrical work
Programming stations
Spare parts
Driver practice
Student meetings
Multiple teams
Safe movement around the robot
The Teen Tech Center gave ENIGMA room to move FTC out of the garage while launching FRC.

The new shop also improved logistics for students who had previously participated in other programs. Several experienced students from Zia Robotics joined ENIGMA partly because the Manzano location made participation more practical.

This mixture of ENIGMA FTC students and students with prior FRC experience gave the rookie team a valuable foundation.
Ten Students, One Rookie ProgramThe rookie roster included ten students.

A team of that size needed every member to contribute.

Students could not disappear into large departments or wait for someone else to complete the work. They needed to participate in:
Mechanical construction
Wiring
Programming
CAD
Strategy
Drive team
Scouting
Pit operations
Business
Outreach
Fundraising
Travel preparation
Judging
The small roster created pressure, but it also gave students significant ownership.
Understanding CHARGED UPCHARGED UP challenged alliances to score cones and cubes on a community grid.

Robots needed to collect game pieces, transport them across the field, place them onto different scoring nodes, and balance on the Charge Station during autonomous and endgame.

The scoring grid contained:
Low hybrid nodes
Mid-level cone and cube nodes
High-level cone and cube nodes
This created several possible robot strategies.

A team could specialize in low scoring, build a fixed-height mechanism, use an articulated arm, create an elevator, or develop a rotating scoring system.

ENIGMA wanted a robot that could acquire both game-piece types and place them at multiple locations without repeatedly turning the entire chassis.

That led the team toward a turret and extending linear slide.
AndyMark Kit ChassisAs a rookie team, ENIGMA began with the AndyMark Kit of Parts drivetrain.

The chassis used tank drive and CIM motors.

This gave the students a proven platform with several advantages:
Reliable basic construction
Available assembly documentation
Robust drive components
Straightforward motor mounting
Easier replacement parts
Reduced drivetrain design time
A known starting point for programming
The team could focus more of its limited design time on intake and scoring rather than attempting a fully custom drivetrain during its first season.
Learning Tank DriveMany ENIGMA students came from FTC, where mecanum drive was familiar.

The FRC kit chassis behaved differently.

Tank drive required the students to learn:
Left- and right-side power control
Turning through differential wheel speed
Traction
Scrub
Wheelbase effects
Current draw
CIM motor behavior
Gearbox maintenance
Chain or belt tension

Driver positioning
Defensive contact
The drivetrain could not strafe sideways like a mecanum FTC robot, making chassis alignment more important.

This limitation strengthened the case for a rotating turret. If the scoring mechanism could turn independently, Thranduil would not need to perfectly align the entire drivetrain with every node.
The Rookie Turret ChallengeSeveral experienced FRC teams told ENIGMA that a turret was too ambitious for a rookie program.

Their concern was understandable.

A turret introduces challenges involving:
Rotational support
Structural rigidity
Motor or actuator selection
Gear reduction
Wire routing
Rotation limits
Position control
Weight distribution
Center of gravity
Mechanical clearance
Programming
Driver operation
A fixed scoring structure would have been simpler.

The students chose the turret because it supported the robot strategy they believed in.

They were not trying to add complexity only to impress others. They wanted the scoring mechanism to reach different locations while reducing the need to rotate the full tank-drive chassis.
The Wooden Turret DeckThe turret used a wooden deck.

Wood was accessible, inexpensive, and easy for the rookie team to manufacture with the tools available.

The deck provided a platform for mounting the slide, intake, and other scoring components while allowing the complete assembly to rotate.

The visible use of wood became one of the robot’s defining characteristics.

That inspired the name Thranduil, after the ruler of the Woodland Realm in The Lord of the Rings.

The name celebrated a design material that some teams might have considered temporary or unsophisticated. For ENIGMA, the wood represented practical engineering: use the material that allows the students to build, test, and compete.

FTC Engineering at FRC ScaleThe linear-slide mechanism showed how directly the team transferred its FTC experience into FRC.

The students built the slide using:
Aluminum U-channel track
Custom trolleys running inside the track
Bearings supporting trolley movement
Kite string for extension and retraction
A winch mechanism
Multiple extending stages
This approach resembled FTC linear slides but was enlarged for the greater reach and loads of an FRC robot.

The system allowed the scoring mechanism to extend outward and upward toward the grid.

Students needed to account for:
Heavier components
Greater bending loads
Longer extension
String tension
Bearing alignment
Trolley fit
Winch torque
Retraction reliability
Structural flex
Center-of-gravity movement
The mechanism demonstrated an important lesson: prior experience can be scaled, but it cannot simply be copied. A concept that works on an FTC robot must be reconsidered when every part becomes larger and heavier.
Custom Trolleys and BearingsThe trolleys ran inside the aluminum U-track using bearings.

The bearings reduced sliding friction and helped maintain alignment as the stages extended.

Students learned that small dimensional differences could create major performance changes.

If the trolley fit was too tight, the slide could bind.

If it was too loose, the mechanism could wobble or twist.

If the bearings were misaligned, the slide could resist movement or damage the track.

Building the mechanism gave the students practical experience with tolerances, rolling friction, load paths, and iterative fitting.
String and Winch ExtensionThe slides used kite string and a winch to extend and retract.

String-driven slides were familiar to the FTC students, but the FRC version needed to manage substantially greater

loads.

The team learned about:
Drum diameter
String routing
Tension
Layering on the winch
Knot security
Friction
Stretch
Spooling direction
Retraction force
Preventing tangles
Inspecting wear
The system was creative, affordable, and rooted in the students' existing knowledge.
AndyMark IntakeThranduil used an AndyMark intake designed to handle both cones and cubes.

The two game pieces behaved very differently.

Cones could roll, tip, or enter at awkward angles. Cubes compressed and could deform under intake pressure.

A mechanism that worked well for one game piece might handle the other poorly.

Students needed to learn:
Roller compression
Intake speed
Centering
Game-piece orientation
Retention
Release
Driver alignment
Transferring game pieces to the scoring mechanism
Using an available intake gave the rookie team a proven base while allowing students to focus on integrating it with their turret and slide.
Integrating Multiple SystemsThe true challenge was not building each mechanism separately. It was making the drivetrain, turret, slide, winch, and intake work together.

The team needed to answer questions such as:
Could the turret rotate without hitting the frame?
Could the slide extend safely at every turret angle?
Would the intake retain the game piece during rotation?
How far could the slide extend before the robot became unstable?
Could wires reach the rotating mechanism?
How would the drivers coordinate turret, extension, and intake?

Could the robot fit within starting dimensions?
Could students service the mechanisms in the pit?
This was the team's first experience building a full FRC system in which every subsystem affected the others.
Fort Worth District EventENIGMA's first official FRC competition was the FIRST in Texas District Fort Worth Event, held March 16–18, 2023.

The rookie team finished qualifications ranked 19th and completed the event with a 7–8 overall record.

ENIGMA was not originally selected during alliance selection, but later entered the playoffs as the backup robot for Alliance 3.

The alliance advanced through several rounds of the double-elimination bracket before being eliminated.

Competing as a backup taught the students that every team must remain prepared after alliance selection. A robot may be called into service with little warning, and the pit crew, drivers, batteries, code, and strategy must all be ready.

ENIGMA earned two important rookie honors:
Rookie All-Star Award
Highest Rookie Seed
The Rookie All-Star Award recognized more than match performance. It honored a young program demonstrating strong organization, outreach, engineering development, and potential to become a model FIRST team.

The award qualified ENIGMA for the FIRST in Texas District Championship.
Highest Rookie SeedFinishing as the event's highest-ranked rookie team was a major accomplishment.

Team 9080 was competing against programs with years of established experience, larger rosters, mature fabrication systems, extensive spare parts, and veteran drive teams.

The recognition showed that the students could compete effectively even while learning nearly every aspect of FRC for the first time.
Amarillo District EventENIGMA competed next at the FIRST in Texas District Amarillo Event from March 30 through April 1, 2023.

The team finished qualifications ranked 23rd and completed the event with a 6–6 record.

ENIGMA did not advance to the playoffs, but the team earned the Team Spirit Award.

The award recognized the energy, identity, enthusiasm, and positive presence the rookie team brought to the event.

For a first-year program, team spirit played an important role in creating culture.

Students were learning that a successful FRC team is not defined only by the machine. It is also defined by:
How members support one another
How the team responds to setbacks

How it treats volunteers
How it interacts with alliance partners
How it represents its community
How students make the pit and stands feel welcoming
How the team celebrates other teams
District ChampionshipThe Rookie All-Star Award and accumulated district points qualified ENIGMA for the FIRST in Texas District Championship.

Team 9080 competed in the Apollo Division in Houston from April 5–8, 2023.

ENIGMA finished ranked 38th with a 3–9 record.

The District Championship placed the rookie team against many of the strongest programs in Texas.

The results were difficult, but the experience showed the students the standard required at the next level.

They saw:
Faster scoring cycles
More advanced autonomous routines
Highly refined drivetrains
Stronger scouting systems
Specialized pit crews
Sophisticated mechanisms
Experienced alliance strategy
Teams prepared with replacement parts
Deep student leadership structures
Qualifying for the District Championship in the team's first season was itself a significant achievement.
A Rookie Season Larger Than the RecordTeam 9080 finished its rookie year with an official record of 16 wins and 23 losses.

The record captured the outcomes of matches, but it did not fully describe the season.

The team had:
Formed a new FRC program.
Moved into a new workshop.
Brought together FTC and former Zia Robotics students.
Built a full-size robot for the first time.
Created a working turret despite being warned against it.
Scaled FTC slide concepts into FRC.
Traveled to multiple Texas events.
Entered a playoff alliance as a backup.
Won Rookie All-Star.
Earned Highest Rookie Seed.
Won the Team Spirit Award.

Qualified for the District Championship.
Established the foundation for future FRC seasons.
The team did not need to win every match for the rookie season to be successful.

It needed to prove that ENIGMA FRC could exist, compete, learn, and return for another year.

It did.

GOALS

Establish a Sustainable FRC TeamThe first goal was to create a functioning FRC program that could continue beyond one season.

That required more than registering a team number.

ENIGMA needed:
Students
Coaches
Mentors
Workspace
Tools
Funding
Transportation
Robot storage
Parts
Safety procedures
Programming equipment
Competition logistics
A team culture
Move Into a Dedicated WorkshopThe Teen Tech Center provided the physical foundation for the program.

Moving FTC out of Coach Russ's garage also allowed the entire ENIGMA program to grow.
Combine FTC and FRC ExperienceThe team wanted FTC students to carry their knowledge forward while learning the scale and structure of FRC.

Students with prior Zia Robotics experience helped the team understand established FRC processes.
Build a Functional Rookie RobotThranduil needed to:
Drive reliably
Handle cones
Handle cubes
Reach the scoring grid
Place game pieces
Remain serviceable
Pass inspection
Survive competition contact

Build a TurretThe team wanted a rotating scoring platform despite the challenge.

The turret would reduce dependence on precise tank-drive alignment and give the scoring mechanism greater flexibility.
Apply FTC Mechanism KnowledgeThe students wanted to adapt familiar linear-slide principles to a larger robot.
Compete at Two District EventsThe team needed experience under real FRC conditions.

Fort Worth and Amarillo would provide the match time, inspections, repairs, scouting, and alliance experience that could not be recreated in the shop.
Earn Rookie RecognitionThe team hoped to demonstrate the qualities evaluated by rookie awards:
Strong organization
Engineering growth
Outreach
Team identity
Sustainability
Gracious Professionalism
Competitive potential
Qualify for District ChampionshipReaching the FIRST in Texas District Championship was an ambitious rookie goal.

The Rookie All-Star Award helped the team achieve it.
Create a Pathway Beyond FTCThe larger goal was to give ENIGMA students somewhere to continue after FTC.

FRC Team 9080 created a pathway from introductory robotics through high-school-level advanced competition.

Lessons learned

A New Shop Changes What Is PossibleMoving from a garage to the Teen Tech Center made FRC possible.

Facilities are not merely storage locations. They affect safety, recruitment, collaboration, manufacturing, and program growth.
FTC Skills Transfer, but Scale Changes EverythingThe slide concept came directly from FTC, but larger loads required new thinking.

Students learned that scaling a mechanism changes:
Torque
Flex
Weight
Friction
Stability
Safety
Material requirements
Ambition Must Be Paired With PersistenceOther teams warned the rookies that a turret was too difficult.

The students learned that ambitious ideas are not automatically wrong, but they require greater testing, troubleshooting, and willingness to simplify where necessary.
Wood Can Be a Valid Robot MaterialThe turret deck did not need to be aluminum to serve its purpose.

Students learned to evaluate materials based on function, tools, cost, and schedule rather than appearance alone.
Kit Components Reduce RiskUsing the AndyMark drivetrain and intake gave the team proven systems while students focused on custom scoring mechanisms.
Tank Drive Requires Different StrategyWithout strafing, alignment and turning affected cycle time.

The turret helped compensate for that limitation.
Wires and Rotating Systems Need PlanningA turret can mechanically rotate farther than its wires safely allow.

Students needed to consider routing, slack, strain relief, and rotation limits.
Extending Mechanisms Change StabilityAs the linear slide moved outward, the robot's center of gravity shifted.

Students learned to think about tipping risk and safe operating positions.
String Systems Require MaintenanceKite string could stretch, wear, overlap, or loosen.

Inspection and tension became part of pit maintenance.
Backup Teams Must Stay ReadyAt Fort Worth, ENIGMA entered the playoffs as a backup.

The team learned that not being selected initially does not end an event.
Awards Can Change a SeasonThe Rookie All-Star Award opened the door to the District Championship.

Judged awards recognized work that match rankings alone could not capture.
Competition Reveals Organizational WeaknessesTravel, scouting, pit operations, batteries, tools, and match preparation all required systems the rookie team had never needed before.
Strong Culture MattersThe Team Spirit Award reflected the team's energy and unity.

Culture helped students remain motivated through difficult matches and long travel days.
District Championship Raised the StandardCompeting in the Apollo Division showed ENIGMA how much stronger the program could become.

The students returned with a clearer understanding of future needs in design, autonomous, fabrication, scouting, and reliability.

Skills and growth

FRC SafetyStudents learned safety practices for:
Heavy robots
Batteries
High-current electrical systems
Power tools
Lifting
Pinch points
Stored mechanical energy
Moving mechanisms
Pit work

Kit Chassis AssemblyThe team assembled and maintained the AndyMark tank drivetrain.
CIM MotorsStudents learned about the size, power, gearing, current demand, and mounting requirements of CIM motors.
Tank-Drive ProgrammingProgrammers translated joystick commands into left- and right-side drivetrain power.
Turret ConstructionStudents developed experience with:
Rotating platforms
Structural support
Bearings
Motorization
Rotation limits
Wire management
Driver control
Wood FabricationThe turret deck introduced practical cutting, drilling, fastening, and reinforcement.
Linear SlidesStudents adapted FTC slide concepts to FRC scale.
Bearing TrolleysCustom trolleys taught alignment, fit, rolling friction, and load management.
Winch DesignThe slide winch introduced spool geometry, torque, string routing, and tension.
Intake IntegrationThe AndyMark intake needed to work with the turret and slide rather than as an isolated mechanism.
Cone and Cube HandlingStudents learned that different game-piece shapes require different compression and control.
FRC Electrical SystemsThe team learned to wire:
Main battery
Breaker
Power distribution
Motor controllers
RoboRIO
Radio
Pneumatics or accessories where applicable
Sensors
CAN network
Competition InspectionStudents learned how to prepare a robot for official inspection.
Pit OperationsThe team developed systems for:
Battery rotation
Tool organization
Repair
Spare parts
Match checklists
Queueing
Communication
ScoutingStudents observed other robots and evaluated potential alliance roles.
Backup Alliance ExperienceFort Worth gave the team playoff experience even though it had not been an original alliance selection.
Judged AwardsStudents learned to explain their team’s creation, robot design, outreach, and sustainability.
Travel and LogisticsThe team traveled from New Mexico to multiple Texas competitions.
Growth Beyond ThranduilThe greatest accomplishment was learning how to be an FRC team.

By the end of the season, students understood that FRC requires the integration of:

Engineering
Programming
Manufacturing
Business
Leadership
Logistics
Strategy
Culture
Community

Competitions

FIRST in Texas District Fort Worth Event

Mar 18, 2023 · Nolan Catholic High School Fort Worth, Texas

Rookie All-Star Award, Highest Rookie Seed

The Fort Worth District Event was ENIGMA FRC Team 9080's first official competition.

The rookie team entered with Thranduil, a tank-drive robot built from the AndyMark Kit of Parts chassis and CIM motors. Its scoring system featured an AndyMark cone-and-cube intake, a wooden rotating turret deck, and a custom string-driven linear slide constructed from aluminum U-track and bearing-supported trolleys.

ENIGMA completed the event with a 7–8 record and ranked 19th after qualifications.

Although the team was not selected during the initial alliance draft, it remained prepared and entered the playoffs as the backup robot for Alliance 3.

The alliance advanced through the double-elimination bracket before being eliminated in Round 4.

ENIGMA earned the Rookie All-Star Award, recognizing the team's engineering development, organization, outreach, sustainability, and potential as a model rookie program.

The team also received Highest Rookie Seed recognition.

Fort Worth proved that Team 9080 could compete in FRC. The event gave students their first experience with official inspection, full-speed matches, alliance strategy, pit repairs, scouting, and playoff competition.

The Rookie All-Star Award qualified ENIGMA for the FIRST in Texas District Championship during its first season.

FIRST in Texas District Amarillo Event

Apr 1, 2023 · Amarillo Civic Arena

Team Spirit Award

The Amarillo District Event was ENIGMA’s second official FRC competition.

With one event of experience behind them, the students arrived better prepared for inspection, match scheduling, pit maintenance, battery management, scouting, and drive-team coordination.

Team 9080 completed the event with a 6–6 record and ranked 23rd after qualifications.

The team was not selected for the playoff rounds, but it earned the Team Spirit Award.

The award recognized ENIGMA’s enthusiasm, identity, positive energy, and support for the larger competition community.

For a new program with only ten students, the recognition reflected the culture the team had created around Thranduil and the ENIGMA program.

Amarillo also added valuable district points and gave the students another tournament of experience before attending the District Championship.

FIRST in Texas District Championship — Apollo Division

Apr 8, 2023 · George R. Brown Convention Center, Houston, Texas

38th Place, 3–9 record

ENIGMA qualified for the FIRST in Texas District Championship through its Rookie All-Star Award and district performance.

Team 9080 competed in the Apollo Division against many of the strongest FRC programs in Texas.

The rookie team finished qualifications ranked 38th with a 3–9 record.

ENIGMA did not advance into the division playoffs.

Although the results were difficult, qualifying for District Championship during the team's first year was a major accomplishment.

The event exposed students to advanced robot designs, highly developed autonomous routines, mature pit operations, deep scouting systems, specialized student roles, and veteran drive teams.

The Apollo Division showed ENIGMA the level of engineering, reliability, organization, and strategy required to compete at the top of the district.

The event completed a rookie season in which Team 9080 established a new FRC program, earned two rookie honors, won a Team Spirit Award, entered playoff competition as a backup robot, and advanced to the District Championship.

Outreach

FTC Creating FRCENIGMA FTC Team 16265 played a direct role in creating Team 9080.

This made the FRC program an extension of an existing student-development system rather than an isolated new team.

FTC students brought:
Technical skills
Team traditions
Outreach experience
Competition knowledge
Mentoring habits
Program identity
Bringing Programs TogetherStudents from Zia Robotics joined the new team, bringing prior FRC experience into the ENIGMA program.

Coach Russ had previously mentored Zia Robotics, and Isabel M. and Madelene C. had participated as students.

The new team preserved those relationships while creating a more practical home for students based on workshop location and logistics.
Teen Tech Center CommunityThe move to Manzano High School's Teen Tech Center created opportunities to connect robotics with a larger student and community environment.

The space allowed visitors to see both FTC and FRC activity and created a more visible home for ENIGMA.
Demonstrating FRC PossibilityBuilding Thranduil showed younger FTC and FLL students that they could continue into large-scale robotics.

The full-size robot became a powerful outreach tool because of its physical presence, moving turret, extending slide, and ability to handle game pieces.
Rookie All-Star RepresentationWinning Rookie All-Star gave ENIGMA an opportunity to represent New Mexico's growing robotics community at the District Championship.

The team demonstrated that a small New Mexico program could enter the Texas district, build an ambitious robot, and earn recognition in its first year.
Gracious ProfessionalismThe team learned from experienced FRC programs and relied on assistance throughout the rookie season.

That experience reinforced the importance of helping future rookie teams with:
Parts
Advice
Inspection
Repairs
Code
Strategy

Pit support

Encouragement

Season highlights

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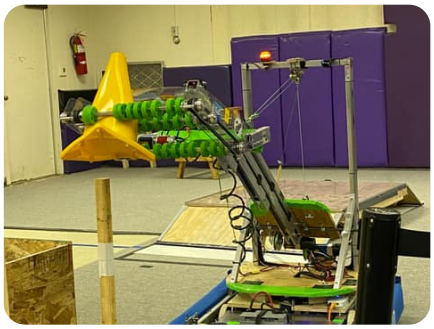

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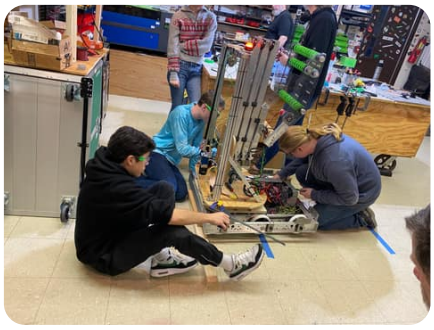

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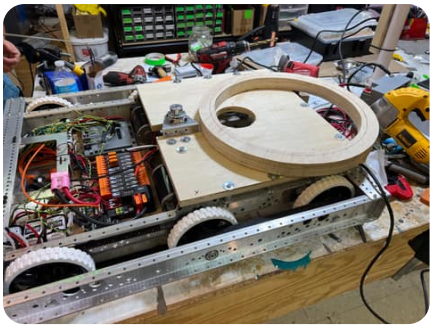

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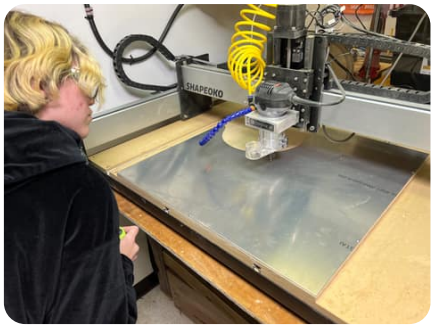

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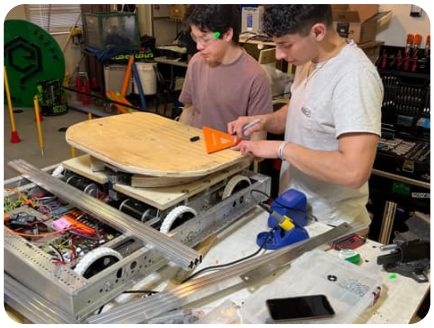

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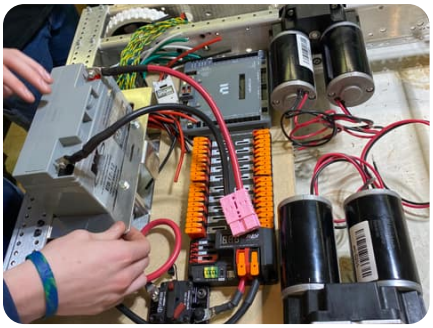

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