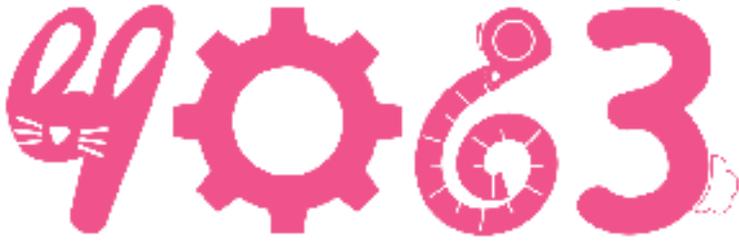
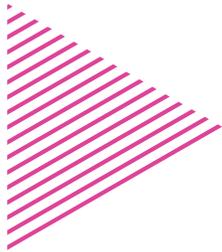


FRC Team

Del Rio, Tx



Teamwork · Dedication · Passion · Fun



# FRC TEAM 4063

## TriKzR4Kidz

2022



# Inspire our community

Since its inception, Team 4063 has created a wave in the Del Rio community. Robotics can be found in every corner of our city.



## ▶ E-CADET

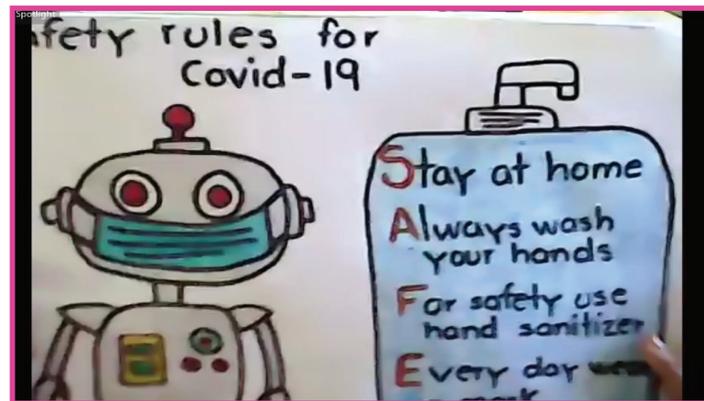
Every Child Aspiring a Desire for Engineering and Technology

E-CADET is a robotics program run by Team 4063. In fall 2019, over 200 elementary students were invited to design, build, compete, and collaborate. Awards were given for innovative designs, creativity, and teamwork. Most of all, kids are inspired to have fun!

## ▶ Virtual E-CADET

Fall 2020 our traditional E-CADET was conducted **virtually** to over 40 elementary students.

Team 4063 led several sessions over Zoom on safety, block-based programming, and CAD using the official FIRST at-home curriculum. Kids showed off their skills through projects and presentations.



## E-CADET AT HOME 2020

TEAM  
4063



TEAM UP WITH THE  
BUNNIES TO

- LEARN ABOUT PROGRAMMING AND DESIGNING
- PARTICIPATE IN THE ULTIMATE ENGINEERING DESIGN CHALLENGE

Open to all 3rd—5th graders  
Free & Virtual

Once a week, November—December  
More information soon!

# Lending a helping hand

## ▶ Mentoring

Since the 2019-2020 season Team 4063 members have mentored **local E-CADET and 6th grade FLL teams.**

In the words of our local elementary and 6th grade coaches, 4063 members “inspires the students to focus and find enjoyment with the engineering/safety of robotics.”

We teach safety, programming, and gracious professionalism, mentoring through patience, enthusiasm, and empathy.



We have developed a reputation of helping teams and volunteering at events. When the Bunnies show up, everyone knows that help has arrived!

“ *In FIRST, we do our best work while helping others* ”

- Dr. Woodie Flowers

# City of Robotics



## ► 2019 and 2020 FIRST in Texas Del Rio District Events

**41 teams** across Texas and New Mexico took over **Del Rio High School**

4063 team members recruited over 100 volunteers from the Del Rio and Laughlin Air Force Base community for this exciting weekend. Partnering with the Chamber of Commerce, local businesses, and the City of Del Rio, everyone played a part in welcoming teams.

Described by the Del Rio News Herald as **“the first of its kind in this area,”** the event was attended by many local leaders, including the SFDR-CISD superintendent and school board members, Laughlin AFB wing commander, city mayor, and county officials. Most importantly, local kids and families embraced the opportunity to witness “one of the most spectacular robotics events” first-hand.



 **Del Rio Chamber of Commerce · Follow**  
Mar 20, 2019

**FIRST Robotics- Del Rio District Event! March 22 - 24.**  
Let's show our guests that Del Rio is truly the BEST OF THE BORDER !

 **Del Rio Chamber of Commerce is at Del RioHigh School.**  
Mar 23, 2019 · Del Rio, TX · 🌐

Come join us here at the Del Rio high school FIRST Robotics Competition at the food truck plaza! Food trucks will be here till 8pm today and till about 4pm tomorrow

“ Another IMPRESSIVE experience at the FIRST Robotics Competition at our very own Del Rio High School...the passion, dedication, knowledge that all these kids have for the game is so amazing. **Thank you to everyone that makes it possible for our community and kids to be part of such an empowering program!!!** ”

- Gisselle, math teacher and FLL parent



# STEM Advocates

## ► City Proclamation

**January 16, 2019** was declared **STEM Education Awareness Day** in Del Rio, TX

Team members met with City of Del Rio Mayor Bruno "Ralphy" Lozano to discuss ways to promote STEM in the community. The Mayor was presented with a team helmet and named an honorary member of FRC Team 4063.



## Engaging local leadership

4063 makes it a priority to advocate for FIRST Robotics, presenting for local organizations and businesses at every opportunity. We are proud to claim our mayor and congressional representative as robotics fans, and will continue FIRST's efforts to *#MakeItLoud!*

- **Congressman Hurd** was invited to our event in 2019. He was a guest speaker and received a personal tour from our student ambassador.



# A Lasting Impact

For many current members of 4063, FRC was not their first exposure to robotics. Local 4063 initiatives such as E-CADET and FLL have been thriving for many years. Today, our members take pride in mentoring the bunnies of tomorrow.



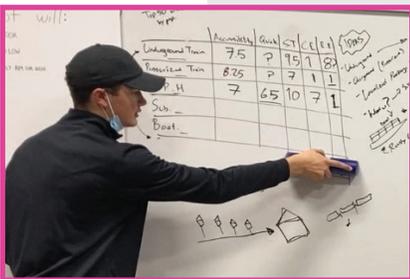
“ *Joining robotics in elementary school opened my eyes to all things STEM. It is surreal how far my knowledge in robotics has come, which has also resulted in me deciding what careers I am pursuing. **Robotics helped me find my passion for STEM as well as understand the importance of creativity.*** ”

- Abby, 12th grade, E-CADET/FLL alum



“ *It's really crazy to see that, after being in FLL and looking up to all of the older kids who actually knew what they were doing, **I'm now filling that role for the younger kids we are mentoring now.*** ”

- John, 11th grade, E-CADET alum



“ *Robotics has greatly helped in pursuing my interest in STEM. I gained so much new knowledge about the field and have met many amazing people that have helped me along the way. **Being in this program has allowed me to truly be part of a team.*** ”

- Lily, 10th grade, Robocamp alum



# E-CADET -> Mentoring

“ FLL was something unlike anything else, and I knew I wanted to continue doing robotics every year going forward. Now that I’m here, I have an opportunity to teach and provide the same experience to younger students. **It’s like talking to myself in the past.** ”

- Alex, 12th grade, E-CADET/FLL alum



“ E-CADET and FLL were my gateways to technology. Every single day I would be eager to come back and work together with my team to build up our robot. **Everytime we solved an issue, it was so exhilarating because you know that you worked it out as a team,** and that feeling alone was enough to keep me in robotics. ”

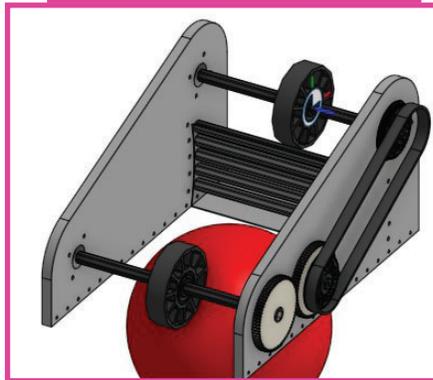
- Melvin, 11th grade, E-CADET/FLL alum



# Hoptimus Prime

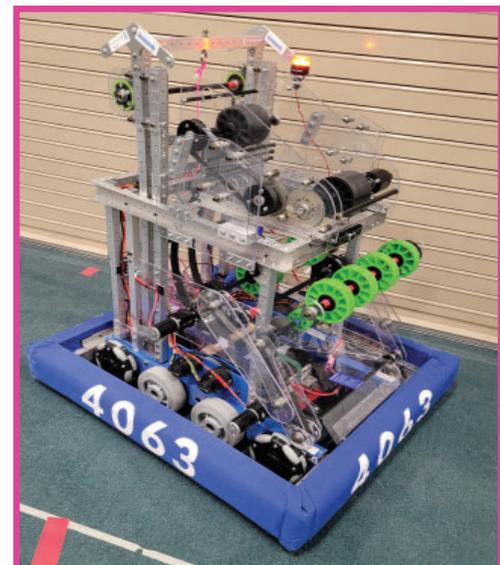
## Our Goals

- Quickly and accurately shoot into the upper and lower hubs
- Climb quickly to the mid bar, with an option to reach the high bar.



## Our Results

- Custom bunny drivetrain with 10.93:1 gear ratio and Falcon 500 motors
- Double flywheel shooter with a 20 degree launch angle, powered by a single Falcon 500 motor
- Articulating arm that deploys and retracts, with green compliant wheels for roller intake and transition system
- Single-stage climber that reaches the mid bar and pulls up the robot in under 10 seconds.



# Continuing our **Legacy**

**ROBOT  
IN A WEEK**

FRC TEAM 4063 IS RECRUITING NEW MEMBERS  
FOR THE 2021-2022 COMPETITION SEASON

9AM UNTIL WE ARE DONE (PROBABLY 5PM)  
**JUNE 21ST - JUNE 25TH**  
CTE CENTER AT 201 EAST 10TH STREET

**SIGN UP AT** [WWW.TEAM4063.COM](http://WWW.TEAM4063.COM)

**OPEN TO ALL SFDR-CISD INCOMING 9TH - 12TH GRADERS**



## ▶ **Robot in a Week**

**Summer 2021** Team 4063 returning members and alumni hosted its **newest tradition Robot in a Week**.

Members were challenged with building a fully functional robot in five days. New members learned concepts such as electrical, machining, and basic programming. Veteran members challenged themselves to build mechanisms new to the team, including a swerve drive, hooded shooter, and multistage elevator.

## ▶ What's next for **the future?**

▶ **Expand E-CADET** to include FLL Explore, thanks to a generous donation from our local Rotary Club

▶ **Explore** the possibility of bringing an off-season event for teams from border communities

▶ **Reintroduce** Robo-Camp, a summer camp on STEM education for kids

▶ **Advocate** school leadership to implement robotics courses at our schools

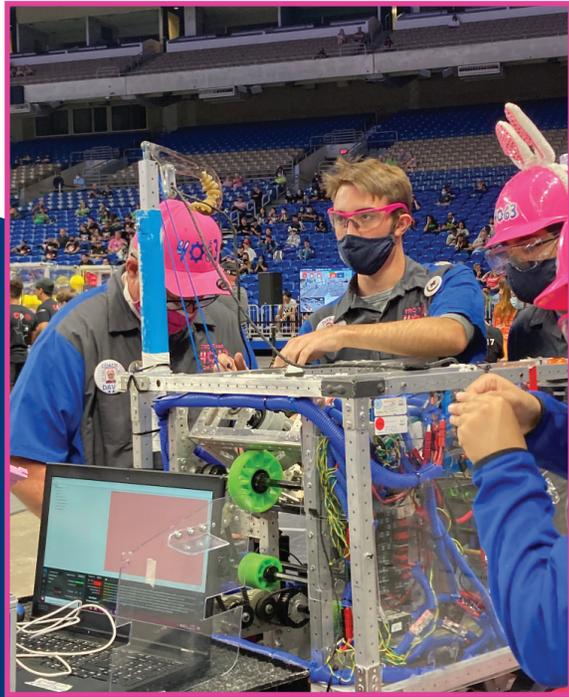


# Teamwork



# Dedication





# Passion

# Fun



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