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## 1.0 <u>Executive Summary</u>

#### **BetaWolves Mission Statement**

"To create opportunities that are otherwise unavailable to students in our small community and rural location by unifying team effort and utilizing fierce competition. The BetaWolves use the core values of FIRST to carve out new career paths for students after high school and prepare our future engineers for the ever-changing, ever-evolving workforce of today."

Rookie Year	2017
Location	Carney, Michigan
School Affiliation	Carney-Nadeau Public School
Team Demographics	11 Team Members (9 our Rookie year) 7 female members; 4 male members 3 Seniors, 3 Juniors, 1 Sophomore 4 Junior Member: 1 Eighth Grader, 3 Seventh Graders
Mentors	13 Mentors (3 our Rookie year) 4 Alumni Mentors
Sponsors	FIRST in Michigan, Michigan Department of ED, DTE, Johnson Controls, Carney- Nadeau Public School, Samuel, Advanced Blending Solutions, Elbe Creative Partners, DeBacker Family Dairy, ChemDesign, Base1, Wendricks Truss, LLC., Superior Welding and Manufacturing, Roy Ness Contracting & Sales, Inc, Anderson Diehm Funeral Home, Integra First Federal Credit Union, Jasper's Sugar Bush, Northern Interstate Bank, Stewart Manufacturing, LLC, Steve Jenkins, Jay's Auto Service, PCM Credit Union, Carney-Nadeau Lion's Club, Simply Sweet Re'Treat, Tom and Laurie Chaney, Walmart, Superior Cedar Products, U.P State Credit Union, Rye Collision Inc., Rye Collision, Northern Coatings & Chemical Co., Dr. Ronald Mueller, DDS, Gary's Quality Foods, Shelby's Quick Mart, Performance Lumber, Splash of Color, First Bank, Wickert's Floral, Michigan Broadband Services, U.P. Machine, PCM Credit Union, 41 Lumber, Larry and Janice Klee, Gary's Quality Foods, Shelby's Quick Mart, Econo Foods, Elmer's County Market, Massie's Country Market, Don W., Blahnik Construction, The Chaney Family, Dobber's Pasty
Social Media	Website – betawolves.org Facebook – The BetaWolves – Team 6637 Instagram - @betawolves6637 TikTok- @betawolves

### <u>2.0 Team Summary</u>



#### 2.1 History

Andrea Chaney, a kindergarten teacher at Carney-Nadeau Public School, founded FIRST Team 6637 in 2017. In addition to encouraging STEM, Mrs. Chaney wanted a program designed to promote social skills, problem-solving, communication, teamwork, and other life skills. Her family was invited to a competition at a nearby high school by a family friend, and it was there that Mason, her son and a freshman robotics team member, fell in love with the idea of building robots! They made the decision to form a robotics team at our school after seeing this.

In 2018, the team underwent a rebranding. Wolf Robotics became the BetaWolves. Our team decided to rebrand because we wanted something more unique, something that would stand out when we introduced ourselves to other teams and our community. We also wanted to find a name that we felt close to and that we could all relate to and live by. In the words of our head mentor, Eric Janofski, "There is no 'done.' We build, we iterate, we improve, we tear it all down. We start again. We are perpetually in Beta."

"There is no 'done.' We build, we iterate, we improve, we tear it all down. We start again. We are perpetually in Beta."

Eric Janofski, Head Mentor

We also introduced some innovations to the Core Values of our team. It was paramount that we changed our name to match our Core Values of our ever-changing team while trying to find what really fits and defines the BetaWolves the best. Our team is constantly in a state of improvement and change because of the need to adapt to the challenges that result from having such a small school and community, and we wanted to communicate this through our Core Values.

We wanted to show what FIRST has done for our students and how important it is to our team. We feel that these are the values that best match the BetaWolves: Teamwork, Coopertition, Impact, Innovation, and Fun.

The team has gone through many changes in the last couple of years as we continue to grow. We have expanded beyond just FRC, with 5 FLL Challenge teams adding 3 more this past season, an FTC team, and 4 FLL Discover teams. Over the last several years, expanding BetaWolves through our elementary school has helped our impact grow. Three years ago, our team went to the World Competition for our overall performance and the Impact Award.

Throughout the past eight years, the BetaWolves have had two "banner years" as we call them. Our first year, as Wolf Robotics, we won the Rookie All-Star award at our district and state competitions, allowing us to travel to the World Competition that was held in St. Louis at the time. In 2022, the BetaWolves won the district competition in Escanaba on an alliance with Superior Roboworks, 857, and The Talons, 5547. At the second district competition, the BetaWolves won the Chairman's Award. After also winning the Chairman's Award at the State competition, the BetaWolves traveled to the World Competition in Houston. Even though these two "banner years" have been significant in our growth as a team, the other six years have shaped the team to where we are today. The BetaWolves have had the opportunity to travel to the State Competition every single year, besides 2020, when our season was cut short due to the CoronaVirus.

## **FRC Through the Years**



#### 2.1.a Robots Through the Years



Name: Wolfie Year: 2017 Game: Steam Works Driver: Cole Tebo



Name: Alpha Year: 2018 Game: Power Up Driver: Josh Haddock



Name: Romulus Year: 2019 Game: Deep Space Driver: Josh Haddock



Name: Darth Wolfius Year: 2020-2021 Game: Infinite Recharge



Name: Lycos Year: 2022 Game: Rapid React Driver: Mason Chaney

### 2.2 Team Highlights



Name: J.A.C.C.A.L Year: 2023 Game: Charged Up Driver: Mason Chaney



Name: Luna Year: 2024 Game: Crescendo Driver: Miles Tickler

In 2021, our team went to Worlds. We won the Chairman's Award that year at both the district and regional levels, and our team's overall performance helped us get that far. Worlds was an amazing experience for everyone. It was a once-in-a-lifetime experience for many on our team. Last year, our team won the Sustainability Award at the State Championship in Saginaw. Another highlight from last year was winning the Industrial Design award after jumping the robot off of the charging station and landing it safely on the ground. Also last year, one of our FLL teams won an award. This year, our FTC team won their district competition and qualified to attend the State Championship for the first time.

#### 2.3 Team Statistics



The team began with 9 members, grades 6-12, and three mentors. Every year, our team captain visits classrooms 9-12 and promotes FIRST, relating it to every career path.

This has helped our team grow to 11 students after five seniors graduated this

past year. The team consists of 11 students, grades 7-12, and 13 mentors, six of whom are parents of students on the team. We are a very young team, with only three seniors this year, but we have graduated 19 alumni, 6 who are mentors for the team. We have three seniors, three juniors, one sophomore, 1 eighth grader, and three seventh graders.

#### 2.4 Student Team Members

During our rookie year, there were two women and seven men. Our team now consists of 7 females and 4 males, which is a significant increase from when we first started. The BetaWolves place great importance on expanding their student body and enlisting new members. We have never had less than what we started with, even though

every year is different. Our team captain visits classrooms to talk to students about what FIRST can do for them. We also seek out specific students, talking to them one-on-one to seek their interests and help them find a place they will love. We also recruit team members using posters, pep assemblies, and creating excitement through daily announcements for the entire school to hear.



### 2.5 Team Mentors

<b>Head Mentor</b> <b>Programming Mentor</b> Mr. Eric Janofski has a Bachelor of Arts. He has his own website- building business and is a vital teacher for our programmers. Mrs. Janofski also mentors our new FTC team.
Head Mentor Marketing Mentor Mrs. Andrea Chaney is the founder of the team. She has an Elementary K-8 Education degree with minors in Science, Math, and Social Studies along with a Master's Degree as a Reading Specialist. She is the Kindergarten teacher at Carney-Nadeau Public School. Mrs. Chaney also mentored our FLL teams and FLL Discover team.
<b>Fabrication Mentor</b> Mr. Jim Jenkins has a degree in business and is a buyer at Great Lakes Food. He is one of the best fabrication mentors that we have ever had. He seems to have the answer to all the questions that we have.
<b>Fabrication Mentor</b> Mr. Joshua Chaney has a degree as an automotive and diesel mechanic and is Lead Maintenance at Superior Cedar. He is one of our main Fabrication Mentors. Him and his son love what they do and will continue to do it after his son's graduation.
<b>Fabrication Mentor</b> Mr. Mark Haddock works at ChemDesign as a Chemical Operator and is a Fabrication Mentor. He has a Bachelor of Arts with a major in French and double minor in Portuguese and Spanish.

Figo Cocordente Second	<b>Electrical and Pneumatics Mentor</b> Mr. Tom Johnson has a Bachelor of Science in Electrical Engineering Technology. He has helped out many teams and continues to do so in his spare time. He has helped in connecting and working with some of the other teams during build season. We are proud to call him one of our mentors.
	<b>Fabrication Mentor</b> Mr. Bryan DeGrave has a degree in Machine Tool Technology and Numerical Controls. He has helped us with designing the robot and CAD. He has also manufactured some of our custom parts.
	<b>Alumni Mentor</b> Mr. Nathan Pichè was a member of our team from 2018-2021. He helped the team with Programming, Scouting, and Marketing, as well as learning how to use CAD. Now he assists the team whenever he can.
Received and the second s	<b>Alumni Mentor</b> 2019-2020 Team Captain Mrs. Lizzy Haddock was a member of our team from 2018-2021, as well as team captain, in her first two years of joining. She was an avid participant on our programming team and now has a passion for anything robotics. Lizzy currently refs at our local competitions and helps us throughout them.
	<b>Bella Chaney</b> 2024-2025 Team Captain Bella has been on the team for 4 years but has watched as the team grows from the start. She is one who can do it all, but her specialty is marketing. She never limits herself from taking part in our fabrication, programming, and scouting teams.

PB37	<b>Alumni Mentor</b> 2021-2023 Team Captain Forrest makes sure that all team members feel welcome, included, and part of the team. He participated in fabrication, marketing, and programming. Along with all that, he was an expert at wiring and dabbled with CAD. He knew a little bit of everything for the team to assist where he is needed.
	Layla Blahnik-Thoune 2018-2019 Scouting Team Captain Layla would love to scare fellow members and make them scream so loud they drop their pizza. Layla is an Alumni Mentor and assists with Design, Marketing, and Scouting teams. Layla is attending Central Michigan University pursuing a career in photojournalism.
FIRST OT R ETTT ETTT OT R ETTT OT R ETTT OT R ETTT OT R ETTT	<b>Alumni Mentor</b> 2020-2023 Driving Team Mason Chaney has been our driver since 2020. Along with the drive team, he served his role as Fabrication Lead and Pit Boss. Mason graduated last year and has come back as one of our mentors.
	<b>Coria DeGrave</b> Mentor Mrs. DeGrave started as a mentor in 2023 and has helped us with multiple areas of our team. She has played a key role in helping with our marketing and fundraising ideas. Mrs. DeGrave always has a kind face and advice to share with everyone.
	Steve Jenkins Mentor Mr. Jenkins has been a mentor since 2019. He has always come through for us returning cans from our bin every time he can. During our season, Steve has always willingly built our field elements we use to practice.

2 e	<b>Michelle Tickler</b> Mentor Mrs. Tickler has been a mentor since 2017. She is a big supporter of the team at competitions and always knows when to lift our spirits with her famous chocolate chip cookies.
	<b>Laura Haddock</b> Mentor Mrs. Haddock puts in the time and energy to volunteer at our local competitions. Allowing us to work concessions at our local school for some extra money.
	Laurie Chaney For the past two years she has taken the drive to NMU to get our Kit of Parts not just for our team but for the local teams as well. She has also brought us food on our Saturday meetings making sure no kid goes hungry.

## 2.6 Team Partners/Sponsors

In our first year, we started with only 7 sponsors, and now we have over 50! Not only has our number of sponsors grown tremendously, but we have also created new partnerships that we hope to continue in the future. Years ago, DTE, a huge FIRST robotics supporter, sought out a U.P. team to sponsor, and to our excitement, they chose us! We were beyond excited to have a company as



big as DTE by our side in our previous and present seasons. They have donated so much to us over the years, giving us safety glasses to make sure we are safe. Along with safety glasses, every year they donate funds to help pay for registration fees.

Every year and every season, our partnerships grow stronger. In recent years, we have built partnerships with North Menominee County Community Schools (NMCCS), assisting them with their summer STEM camps, CN Lion's Club, helping them clean garbage along US Highway 41 while also

assisting them in their fundraisers throughout the year; Michigan BroadBand Services, DeBackers donates there products every year for our breakfast with the BetaWolves, Jasper's Sugar Bush also donates there products for the breakfast with the BetaWolves, Wendricks Truss, Advanced Blending Solutions (ABS), which matched \$250 of what we raised during our 2018 Christmas Can Drive; Stewarts Manufacturing has allowed students into their workplace and allowed us to make a custom piece and many smaller businesses. These businesses and organizations have donated so much over the years and have done so much for the team.



We also like to send out a recap of our year to help our sponsors know how their support helped the team. Each year we create a year-end summary of the team's accomplishments, struggles, and any other important information from that season. This is another way we like to show our sponsors how much they mean to our team.

## carney-nadeau public school robotics 2023 The BetaWolves TEAM 6637





## **LSSU Event**

The BetaWolves finished fifth in qualifications and won the Innovation in Control Award!



The BetaWolves finished fourth in qualifications and won the Industrial Design Award!



Team 6637 The BetaWolves on Facebook

https://www.facebook.com/TheBetaWolves



## **Congratulations Seniors!**

The BetaWovles would like to wish our Seniors Good Luck in all their future plans and endeavors!





The team qualified for the MI State Championship in Saginaw and won the Sustainability Award on the APTIV field!



Thank you to all our sponsors and volunteers! We couldn't do it without you!

Thank you for supporting our future engineers!

## <u>3.0 Team Management</u>

#### 3.1 Team Membership and Relationships

Membership in the BetaWolves is a year-round commitment. Both mentors and students improve their abilities, build relationships, and get ready for life in today's workforce.

In the words of a former team captain, "FIRST robotics has something for everyone. It's not just for the mechanically minded; it's for thinkers, creatives, socials, anti-socials, and everyone inbetween. FIRST can teach you any skill you need to know; you just have to look for it." This is how we like to present our team to members and potential members to make sure everyone knows they have a purpose on the team and to make sure everyone feels inspired to succeed as part of the BetaWolves. Being a part of a small school and community, our relationships with members often don't start as teammates. In fact, for most of us, we've known each other since we were kids, and we've been in the same programs for nearly as long. As teammates in robotics, we are starting a new chapter of our relationships with each other that all starts either in our first summer meeting or during kickoff. We introduce them to all our sub-teams and gauge their interest in the different aspects of robotics. Team captains are charged with making sure that new members feel comfortable and informed of all responsibilities.

Many of our mentors are also parents of team members, so they are able to easily communicate with each other as well as the students. As we've learned, there are many talented adults behind our talented younger members, and they are very interested in supporting their children's activity in FIRST robotics. Our mentors are flexible, meaning that they can help in numerous areas of the team when they are needed. We make it a great focus to make sure that everyone involved in our program, from students to sponsors to fans, knows how important our mentors are to the success of the BetaWolves.

Our group organizes a Sponsorship Drive each year, during which we go around to local and nearby businesses and tell them about the BetaWolves and offer them the chance to sponsor us. We introduce ourselves, our team, and our performance from the previous season as we hand out our sponsorship packets. We answer any questions that they have and then leave our contact information so that they can communicate with us and use it whenever needed. To give our sponsors a chance to see the robot they ultimately assisted in building, we make sure they are aware of the dates of our competition and exhibition events!

To communicate outside of meetings, we are implementing the app Discord. If someone has a question, they post it in the relevant text channel related to their question. And a team leader or mentor related to the text channel will respond within a few hours. Our main text channel organizes



things like our next meeting and who can make it to the meetings. We even have one just for random jokes to keep things fun.

### **3.2 Team Structure**

Mentors, a team captain, and sub-team captains oversee the BetaWolves. There are students who specialize in particular tasks and skills so that we have at least one constant driving member of each team, even though no team member is limited to only one group and every hand is needed everywhere. We have had team members from the driving group help people in the marketing team in order to finish projects on time. Many team members are helping in jobs which they do not specialize in. With our team being so small, we need all the help we can get, whether it's from someone in media working on marketing or marketing working on fabrication. We work together to get it done. With every part of the team, we all come together, building the biggest friendships.



#### **Team Leadership**

Since there are just seven high school students on our team, each member must play a vital role in maintaining the team's cohesiveness and efficiency. To provide additional structure, we technically designate "captains" for each division of the team, but each team member is still required to take the lead on specific projects. Over the course of the season, each team member gets the opportunity to take the lead on various initiatives.

#### **Team Captain**

Our Team Captain assists our mentors in leading meetings, assigning and overseeing tasks, and assisting sub-team captains and team members.

The duties of the Team Captain are to include, but are not limited to: assist the coach in leading all-team meetings; assist in the selection of sub-team leaders; assist sub-team leaders when needed; and actively promote and lead students in supporting our team mission.



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#### Sub-Teams

The BetaWolves strive to make sure all students hold a vital role during Build Season and beyond, as well as during competitions. Sub-teams were developed to ensure each member of the team *has an essential role, vital to the success of the team and growth of themselves.* Sub-teams accomplish specific tasks efficiently. Each sub-team will have at least one leader. Sub-team leaders will be recruited by the coaches, mentors, and team captain, as well as team members. They are responsible for managing students and projects assigned to the sub-team.

### Build Season and Beyond Management



#### Design

The Design team includes team members who are the first group to discuss, brainstorm, and document potential solutions for achieving team goals. Their solutions should be discussed with CAD, Fabrication and Programming to gain more context. The best design team would include members from these other sub-teams.

#### CAD Team

This year, the team has utilized CAD more than we ever have: We are developing our skills using CAD and plan to continue utilizing Fusion

360. With a new mentor whose job is solely CAD, we have gained more information about how to utilize CAD rather than build, tear down, and restart. With CAD, we can plan ahead and see what works and what doesn't. Working right alongside the fabrication and Design teams, we can build an efficient robot.





#### **Fabrication Team**

Fabrication members will build based on models from the Design Team. Fabrication members are expected to manage inventory, maintain an orderly shop, and uphold safety standards for team members and all other people who are near the shop. The fabrication team is responsible for hearing out everyone's ideas and seeing which ones will work. They then take those ideas and run them by both the CAD team and the Design team before ultimately making a decision on what the robot is going to look like and do.

#### **Electronics & Pneumatics Team**

The Electronics & Pneumatics Team is responsible for designing, problem solving, and configuring the electrical and pneumatic layout of the robot. Without the Electrical team, our robot would not be able to run. They are responsible for teaming up with the programming and fabrication teams to meticulously place any kind of motors and sensors the robot may need. The Electrical team helps make the robot's brain and places it on the robot so it's not in the way but still easy to access.





#### **Programming Team**

The Programming Team is responsible for learning and using Java to create programming logic to control the robot and its mechanisms. Before matches, the programmer designated as the Technician for that match sets up the competition laptop so that we can communicate game data to the robot. The programming is responsible for anything in the auton period of the matches. They are also responsible for the buttons on the controller when in the matches to help the driver maneuver the robot.

#### Safety Team

The Safety Team is responsible for working with other teams to determine the best standards for safety protocols in the school and at competition. The safety team always knows where the safety kit is and is always there just in case someone needs help.

#### **Marketing Team**

The Marketing Team manages all tasks related to promoting our team. This includes fundraising, sponsor relations, media and graphic production, social media, and other related projects. In more recent years, our marketing team has taken on the responsibility of awards such as the Chairman's Award, Dean's List, and Woodie Flowers Award. They are also responsible for our going green initiative and what actions need to be taken.



#### **Competition Management**



#### Drive Team

The Drive Team operates the robot and represents the team on all fields at competitions. Students are selected for the drive team based on their behavior and dedication throughout the season. Typically, a student makes the drive team if they act respectfully, communicate well, know the game, and understand the capabilities of our robot.

#### **Scouting Team**

The Scouting Team is responsible for attaining important intelligence during competitions. Developing communication skills while getting to know our allies and opponents creates a huge margin for success. The scouting team will continually work to develop and improve the data collection process to make the information most advantageous for the team.





#### Marketing

The Marketing Team is responsible for all photography and keeping up with social media outreach during competitions. They keep our followers up to date on the times, dates, and outcomes of our matches. They are also responsible for giving other teams additional information about our team and making sure that copies of our Sponsorship Packet and Business Plan, as well as our foldable wolf "pins" are readily available.

Mrs. Andrea Chaney, our team founder and head marketing mentor, is in charge of our marketing department. The marketing team oversees all activities related to our team's advertising. This includes fundraising, social media, media and graphic production, sponsorship relations, and other related activities. Our marketing team designed our business cards and sponsorship packet, which we distribute to community members to inform them about our competition dates and social media accounts.

We have come to realize that FIRST and the BetaWolves cannot be promoted without the Marketing team. We have discovered that the majority of people are unaware of FIRST and its purpose, but by publicizing the team, giving out cards, engaging the public in our school and community, and maintaining a strong social media presence, we are changing people's perceptions and fostering the belief that FIRST offers the essential skills that today's students require.

#### **Pit Crew**

All of our robot's needs are met by the Pit Crew, which is headed by the Pit Boss. Their task is to guarantee the well-being of the robot. In addition, they have to maintain the robot following each game and make plans for any other issues that might come up amid the chaos of competition. Other than the robot, the pit crew must always be ready for visits from the judges and other teams looking for more information about the robot.





#### **Programming Team**

The Programming Team is responsible for connecting our team's computer to the field right before matches start. When it is our team's turn to take the field, the Programmer assigned as Technician for that match must plug the Ethernet cable into the computer, find the robot's Wi-Fi, and input the correct autonomous if need be. They are also responsible for adjusting the code according to necessity as well as recognizing code errors during the match.

#### Safety Captain

The Safety Captain is responsible for making sure that our team members are always meeting all safety standards. They make sure that our team's bot and pit are up to the safety standards of FIRST. They are responsible for making sure everyone is properly equipped, ensuring that long hair is pulled back, spill kits are in place, and, of course, safety glasses are on everyone around.

#### 3.3 Team Core Values

When changing our name, we made some innovations to our Core Values of our team. It was paramount that we changed our name to match our Core Values of our ever-changing team while trying to find what really fits and defines the BetaWolves the best. Our team is constantly in a state of improvement and change because of the need to adapt to the challenges that result from having such a small school and community, and we wanted to communicate this through our Core Values.

It was imperative that we demonstrated what FIRST has done for our students and how important it is to our team. We feel that these are the values that best match the BetaWolves: Teamwork, Coopertition, Impact, Innovation, and Fun.



## **BetaWolves** Core Values

## Impac

The main reason the BetaWolves were Founded was so we could bring STEM to our small community. Our mentor, Andrea Chaney, saw an opportunity to introduce new ideas and experiences that were otherwise unavailable to students. There is nothing like FIRST in our small town, so to introduce this innovative and progressive is something that we believe is extremely important for the youth of Carney-Nadeau. We have continued to establish STEM within our younger generation students through our other FIIRST programs.

## ur Schoo

Before bringing FIRST into Carney-Nadeau, our school did not have any programs that involved STEM. Most extracurriculars in our school revolve around sports, so robotics was a very new program that we brought to our student body. At times, it can be daunting to kids who have been dedicated to sports teams since a very young age. By recruiting new members, we are showing students everyday what STEM and FIRST can do for them.

## Our Communit

As with our school, we are also very focused on bringing STEM into our community. FIRST robotics has been a great motivator of this. Since the beginning of our team, we have been exposing the community to new programs that are full of intense, new experiences that they may not have had a chance to be a part of. In addition, we have been able to serve our community while contributing to all the support they have given the extracurriculars at Carney-Nadeau throughout the years.

## Our Students

At the core of our team is our students members. A big Focus for our mentors is letting students drive the ideas and the progress of the BetaWolves. We want to encourage our students to think For themselves and learn how to troubleshoot problems before they arise.

## JC FU

There's a reason we have it everywhere, from our sponsorship packet to our mission statement – "Supporting our future engineers" has been one the main reasons of whu our team was Founded. As technology around the world evolves, there are new jobs being created every single day that no adult has any experience with. FIRST helps students and mentors alike learn how to adapt and contour themselves to the challenges of today's technological workforce. The BetaWolves use the core values of FIRST to carve out new career paths for students after high school and prepare our future engineers for the ever-changing, ever-evolving, workforce of today.

## nova

Our team is constantly brainstorming, problem-solving, and creating new ways to not only make our bot, but our team better and more efficient. We want to constantly change, learn from our mistakes, and grow past who we were before. By working together to come up with new ideas to approach new problems, we are and ever-evolving team full of ever-

evolving people.

## Teamwork

One of the things our team struggles with the most is our small amount of team members. Though this does cause problems, it also makes the need for teamwork more important. Having a small team means that we are able to Form close relationships with each other, and we all work well together.



Last, but certainly not least, we want every member to enjoy being apart of robotics. We want members to Find joy in competition, problem-solving, and hard work. Building a robot in 8 weeks, creating a business plan, advertising the team, and all the other aspects of robotics can put a lot oF stress on team members, so, to prepare students for Future careers, we want to teach them how to Find joy in Finishing tasks and completing objectives.

## Coopertition

One of the biggest and most important ideas that our team holds is a mix of competition and cooperation. We have worked with multiple neighboring teams, such as the North Central Jet Sets, the Stephenson Eagles, the Mid-Peninsula Wolverine Circuit Breakers, and etc. During competition, we want to win, but we cannot win alone. As an allied team, we strive to not only be the best teammates, but also the most civilized and respectful competitors. We do not take FIRST's definition of Gracious Professionalism lightly. All teams must strategize and compete as one, and your opponent from your last match could be your ally in the next. Coopertition teaches us to adapt and be Flexible with all teams.

## Our Environmer

In order to suspend our sustainability beyond our small community, the BetaWolves strive to impact our environment by pledging to reduce our plastic waste; we have no longer been using plastic utensils, non-reusable plates and cups since 2019. In the past we have partnered with the Lion's Club to adopt-ahighway program, where we picked up trash along U.S. Highway 41, where are school is located. The BetaWolves now also currently work with ABC Partnership to collect bottle caps within our school system. When we gain enough caps we hope to return them in hopes of getting a bench for our playground. made from the bottle caps. In the future we hope to create a system of recycling for school, since it is an unavailable option for us in our community and district. We are also looking into purchasing QR codes , where once you Fill your water bottle up and scan the code it will donate money to clean up bodies of water.



BetaWolves

**BetaWolves** GOING GREEN Initiative

## <u>4.0 SWOT Analysis</u>

#### Weaknesses

-Small teams sometimes means not enough people to fill tasks -Difficulty Fundraising in small town -Sharing the time of our members with other programs

#### Threats

-Losing team members to other programs -Team members splitting focus among different extracurriculars -Lose half of team after graduation

#### Strengths

-Hardworking members/mentors -Small number of team members allows for closely formed relationships -Small community leads to easy communication

#### Opportunities

-More career options after members graduate -More wide spread for outreach -More room to grow

## 5.0 Team Impact/Outreach

#### 5.1 Building Team Awareness

Making sure that our community has the chance to learn about STEM skills is one of our key priorities when raising awareness for our team. **STEM:** Science, Technology, Engineering, and **M**athematics. STEM is the core of a great robot and teaches us the skills that are at the core of a great team. STEM skills include statistics, problem-solving, creativity, argumentation, intellectual curiosity, data-driven decision making, and flexibility. These skills will lead the BetaWolves and our community to success in competition as well as in life. Having STEM stations at every event we host gives us the opportunity to introduce STEM to students and parents in an engaging and effective way.

### **Annual Memorial Day Parade and Festivities**

Every year for Memorial Day, the BetaWolves create a float designed to showcase that year's

robot as well as our accomplishments and any awards won that year. We also use this as an opportunity to display our banner around town as a way of thanking our sponsors and our community for their partnership and support.

After the parade, there is a festival at the rodeo grounds. The BetaWolves host an exhibition during this time that includes STEM activities, such as creating a robot that can draw using only a few basic materials. We also set up a small field area with a couple obstacles and

game pieces where young students and children can work with and drive the robots. In more recent years, we have invited our other FIRST teams, as it is important to show off everyone's hard work. In a more

recent year we have had our FTC team join us showcasing what they have done.

#### **Robots in the Library**

This summer, we held a demonstration of our robot at the Hermansville Branch Library. We first showed off what our robot could do by driving the robot ourselves, and then we let people from the audience drive the robot. We placed a kickball in the middle of the gym above the library and let people attempt to score a goal by using the robot to push the ball. In doing this, we provided an opportunity for young students to learn about what FIRST means to us, what our program is all about, and the STEM skills that we use every day. Attending robots at the library is another event to show the community how our team is changing throughout the season and how we are expanding and developing.

### 5.2 Fundraisers

When the BetaWolves plan any fundraiser event, STEM and awareness for the team and for FIRST are at the forefront. Each event is planned with these ideas taking precedent. From our sponsorship drives to our annual events, we prioritize community involvement and awareness to continue to promote our team and the impact of FIRST.

## **Sponsorship Drive**

Every year, our team puts on a Sponsorship Drive, where we visit businesses in our town and neighboring towns to tell them about the BetaWolves and introduce the idea of partnering with us for a sponsorship. We hand out our Sponsorship Packets and tell them a little bit about our team, including how we did in the previous season. We also invite them to our local competitions so they can



see how their sponsorship has benefited the team and how it has been used. We answer any questions that they have and then leave our contact information so that they can communicate with us and use it whenever needed. This event is what brings in most of our sponsors. We have been lucky enough to be invited into Bryan, one of our mentors, work place, Stewarts, to show us how a C and C machine works and give us the opportunity to make our own custom piece.

### **BetaWolves Night**

Every year, we hold a BetaWolves Night at one of the home basketball games, where we sell a

special food item and hand out information about the team. For the 2019 season, we made waffles and set up a topping bar, and for the 2018 season, we made fresh smoothies. This is one of the few fundraisers that we do. We distribute business cards with our social media links and competition dates on them in an effort to spark interest in our program. We also conduct robot demonstrations in the hallway to showcase our robot and its capabilities and to give people an idea of what the FIRST robotics competition is all about. One



of the best ways we promote our values during games is by having our senior team members make banners in the gym with the team names on them. In addition to volunteering to work concessions in order to raise funds and promote the team.

### **BetaWolves Christmas Can Drive**

In our 2018 season, we asked our community to bring in their empty cans and bottles as a form of donation to the team. In the 2019 season, however, we wanted to use this idea to help give back to the town that supports us so much. We sent out promotional videos on YouTube telling everyone that our can drive was going to be a little different this year. During the Christmas season, we gave back all of the funds raised through the donations of bottles and cans to families in need during Christmas time. While we were collecting, we found a local business, Michigan Broadband Services, to match what we collected, up to \$250! We now host can drives to promote our bin outside the lab, but it remains open every day. We have even allowed classes to host can drives with our bin as long as they return the cans themselves.



## **BetaWolves Breakfast and STEM Activities**

One of our favorite fundraisers is our pancake breakfast, but the best part isn't the food! Our students and mentors set up tables in the hallway to conduct STEM activities for the students, children, and their families to participate in. The knowledge of STEM is lacking in our community, so we want to try our best to help instill the ideas of STEM in/ everyone, especially at a young age. Some of the activities we had were building towers out of marshmallows and uncooked



spaghetti noodles; making lava slime; creating static with balloons to make paper cutouts fly; creating bubbles out of dry ice; and many more. We hope to continue this annual breakfast so we can continue to demonstrate the STEM skills that we use in FIRST robotics every day. We want to share what we learn through FIRST with young students and children and hopefully bring them into the program someday as well. During our breakfast, we were able to develop a partnership with sponsors such as Jasper's Sugar Bush and the American Legion Post 487.

### Beta Bash

Every year on Saturday following the Fourth of July, we have our annual Beta Bash. It was our first year hosting the event at Jaspers Sugar Bush. All three of our teams—FLL, FTC, and FRC—will be



showcasing their season-long robots at the event. A sphero maze, a QR code scavenger hunt, and other STEM-related activities are scattered throughout the area in addition to our robot demonstration. In order to draw in passing cars, we held our previous Beta Bash at our town hall, which is directly next to the highway. We moved it inside during a downpour, but it was not without difficulties. displaying our

robot from the previous year and remaining true without providing the kids with STEM activities. We had a meat raffle at this event, and some amazing sponsors provided cash, raffle prizes, and random meats. We sold sticks with numbers on them for the meat sale, and the winner was chosen by spinning a wheel. They could then choose which meetings to attend from that point on. A cow pie bingo game is another feature of the beta bash. Participants purchase a ticket with a number that corresponds to a square in a field featuring a cow. The winner receives \$500, regardless of where the cow transacts.



### **Pumpkin Palooza**

At our Pumpkin Palooza, we host it on the lawn right outside the school. This event was held

right before Halloween so people could get all the holiday items in one spot, like pumpkin and pumpkin spice lattes. Like every other fundraiser, we had STEM stations where kids could make a catapult out of popsicle sticks while the students shot off pumpkins in their home made catapult. We also had a penny war to see which senior got a pie in the face. They all ended up getting one in the face, but it brought excitement to the kids to have a say in which one got first.



We were able to have bounce houses and a corn hole tournament for some extra fun.

## Fry Bread



The most recent fundraiser we have hosted was in our school cafeteria. We have done this fundraiser a couple of times now. Making fry bread and turning it into a taco or a pizza. We sectioned off two areas for our FLL kids to show off their creations and the FTC to show off their robots. This was an easy way to teach kids life skills like cooking, talking to others, and the ability to memorize people's orders and make them correctly.



## 5.3 Going Green

The BetaWolves have observed over the years how much trash our team produces during the seasons. Our goal was to take action in this regard. In 2020, we established a the Going Green Initiative. While the entire team participates in our activities, this subteam comes up with fresh ideas for how to increase our influence going forward. One step at a time, we can change our community through this initiative.



## The BetaWolves' Carbon Footprint

The BetaWolves are going greener! One of our initiatives is: *how can we implement sustainability not just for our team but for the environment?* In the past, we have had to purchase plastic utensils, paper and Styrofoam plates, and plastic cups, averaging \$420 per year, only including build season and two district competitions; progressing further into competition, possibly into early May, the cost could be



doubled. The \$420 only covers our small team of 16 students and 10 mentors (not including virtual mentors). If you put that in perspective of a team that has double the number of people, they could be spending upwards of \$500. To decrease our carbon footprint, several families have donated reusable utensils, including knives, forks, and spoons, along with reusable plates and bowls. Team members and mentors are required to bring a refillable water bottle to practice and competition. Not only that, we have put in a water cooler to make sure the team is healthy and hydrated. We were able to cut supply costs and prevent piles of garbage!!! Students wash their dishes, adding a level of responsibility. For the competition, our team bought bamboo silverware and plates; therefore, we are still making sure we are biodegradable. The company we purchase from

creates products from bamboo that are fully compostable, biodegradable, and responsibly sustainable. This decreases the amount of plastic wasted in every competition. With their affordable prices, this was a no brainer decision for the team. The time to act was now.

REDUCING OUR																										
REUSABLE		TH	E NUN	IBER	OF FI	ORKS	ONE	PERS	ON U	SES I	N AN	FRC	SEAS	ON								PLA	STI	C		
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Now we have moved past just at competitions and in the lab. We make sure we use biodegradable and compostable items at every one of our fundraisers. We bought compostable to-go containers in case people would like to take their food home or make a pickup order at our Fry Bread fundraiser. With the use of bamboo plates and utensils, we are saving the planet rather than using styrofoam trays.

Additionally, we have created paper BetaWolves swag for competitions: recyclable and biodegradable! This way, instead of buttons, these paper wolves can be recycled rather than going to a waste field.



In addition to decreasing our carbon footprint for one robotics season, we are teaching skills for a lifetime of awareness for our community and environment: Our pledge to create less garbage has expanded from students and mentors to families, staff, and our community. We use reusable supplies whenever possible, saving

garbage for approximately 200 people per event!



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#### Getting the community Involved

We started collecting bottle caps as well and are planning on using them to make a bench. Through ABC Practice Partnership, when we



collect 250 LBS of plastic caps, sorting and washing them ourselves, we can make a trip with them all to Indiana and back. And in return, they will make and give us a plastic bench that we can place anywhere, showing people their hard work and what they were able to help create. As of now, we have reached half of our goal with a total of 150

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LBS. We met to sort, wash, weigh, and then bag what we had collected so far. Our school is allowing us to store the caps and supplies in the basement. Bringing our community together on this has been a goal for

a long time, and through this program, the

community can also make a difference in what we do.

In our earlier years, we held a can drive in which people dropped off their cans and we returned them, saving the environment and giving the community a way to help us out. In the past years, we have had a permanent can return bin outside of our lab where anyone is welcome to drop off their returnable cans and bottles. We are so grateful to have someone who is willing to store and return cans whenever he has the chance. Always wanting to give back to the community, we rent out the can bin to never need it as long as they take the cans out by the time they can drive it. We do not charge them for this; rather, it's our way of giving back to the community when they do so much for us.



#### 5.4 Growth of FIRST Teams`

Our team has expanded and contracted over time, but we have never given up. We have expanded to include five FLL Challenge teams, an FTC, and four FLL Discover teams. These children are able to participate in FIRST through almost their entire grade school career, and many have returned as mentors after graduation. The passion for robotics and FIRST has grown over time. One of our main objectives has always been to prepare students for success, and we are able to do so thanks to our numerous teams. As students progress through the different programs, we can see the

impact our programs have on our students in areas and multiple skills in STEM, communication, teamwork, and problem solving.

## 5.5 Social Media

The BetaWolves are on several social media networks so fans and families can follow our activities all year long. Keeping people informed about everything our team does is another way we express our gratitude for their unwavering support. It also serves as a venue for parents to see what their child has created and how much their hard work has paid off, even if they were unable to attend the competition.

YouTube:

We use YouTube to post impact and robot reveal videos. We give a little insight into what our robot can do before seeing it in action.

• <u>https://www.youtube.com/@BetaWolves-Team/featured</u>

#### TikTok:

Anouncements, information about fundraisers, and our wonderful sponsors can be found on our TikTok page.

• <u>https://www.tiktok.com/@betawolves?\_t=8jO4NgMYXO7&\_r=1</u>

#### Instagram:

We share fun videos, information about contests, our yearly BetaBash, and the awards we receive during the competition season on Instagram.

• <u>https://www.instagram.com/betawolves6637?igsh=MWp2YWt5Mm04eGsxaA==</u>

#### Facebook:

We give updates on competitions, fundraisers, members of the team, and say thank you to all our amazing sponsors through Facebook.

• <u>https://www.facebook.com/TheBetaWolves</u>

#### Website:

We hold all our information about the team, breaking it down into separate pages on the website.

• <u>BetaWolves.org</u>







## 6.0 Goals for Sustainability 6.1 Financial Sustainability

We have been fortunate enough to have 50 sponsors this season. These range from big companies to small businesses and individuals in the community. Our sponsors include FIRST in Michigan, DTE, Carney-Nadeau Public School, Carney-Nadeau Lion's Club, Microcut Machine & Tool, Scion, Elbe Creative Partners, DeBacker Family Dairy, Base1, Michigan Broadband Services, Tom and Laurie Chaney, Anderson Diehm Funeral Home, Shirley's Garden Gate Flora & Gifts, Plutchak Fab., LLC, LLC PixInfusion, American Legion Post 487, Kompelling LLC, Integra First Federal Credit Union, Jasper's Sugar Bush, Carney-Nadeau PTO, Lucas Chaney, Mark and Brenda Jasper, Fernstrum, Advanced Blending Solutions, LLC, Wildwood Truck-Stop, Jay's Auto Service, PCM Credit Union, Pinconning Metals, Inc., Roy Ness Contracting & Sales, Inc., and Simply Sweet Re'Treat.



## 6.2 Sustainability and Growth for FIRST and the BetaWolves



To continue to grow our program, in 2019 we established a FIRST LEGO League here at Carney-Nadeau grades 2-5. We wanted to build an FLL program to get students invigorated in engineering, robotics, programming, and FIRST at a younger age. They are able to build their own robots using their imaginations. In addition to this, the kids are able to learn how to program their robot. The FLL team provides a feeder program for our FRC team along with an opportunity for our FRC team members to develop as leaders by mentoring the FLL teams. Along with FIRST LEGO League in the Kindergarten and 1st grade classrooms, FLL Discover.

We have established a well rounded FTC team with grades 6-8. With the addition of FTC, we have FIRST programs K-12. FTC is a good introduction to building with actual parts instead of jumping straight into FRC. Our lead mentor has taken on the role of mentor for FTC. Some students from FRC also helped mentor FTC, benefiting their leadership skills.

For one year, our head mentor was able to establish a robotics class for our Juniors and Seniors. One of the head mentors is the teacher of the class. The class sparked interest



for many students who have stated to us that they would not have had an interest in FIRST otherwise: our numbers grew from 16 to 22. The students in class were able to focus on game strategy analysis and prototyping, along with other concepts that the team has been unable to focus on in the past.

Another thing that our team wants to work on more in the future is becoming a source of information and guidance for all young and old teams in the area. We wanted to do for other teams what our rookie year mentoring team, team 6079, the North Central Jet Sets, did for us. We feel that

this relationship is a true representative of the philosophy of FIRST because, although our schools have rivalries in all other aspects (sports, academics, etc.), we have done our part to give back to the team that helped us begin. Now that North Central is in a place where they are struggling to grow their team, our teams are continuing to work together, sharing space, mentors, buses, tools, and the lab when possible. In the spirit of teamwork and gracious professionalism, we want to become a beacon for all teams in the U.P., near or far. Whether it is helping the Jet Sets with



the construction of their robot or sharing our scouting sheets with team 7782, the Mid Peninsula



Wolverine Circuit Breakers, the BetaWolves want to be a team that every one of our neighbors can turn to for answers and assistance. We plan to start holding workshops during the off season where we will provide the necessary components so that we can assist them in hands-on learning where they build systems themselves that they can take home for use in the season. We hope to provide teams with the support they need to build bumpers, code a drivable robot, begin the structure of a business plan, and do all manner of other things that are needed for the FIRST competition.

## 6.3 History of FLL

In 2019, three teams of third, fourth, and fifth graders formed the foundation of the BetaWolves FLL squad. Participating in the Kingsford competition involved using Legos instead of the usual tools and parts, which made it an entirely different experience. For the kids and our school, it was something completely different. We were able to integrate STEM into the elementary courses, expanding our school's focus beyond athletics.



To provide our parents with a more engaging experience and to reduce the distance they had to travel to see their children compete, we decided to conduct our tournament for the 2020 and 2021 seasons.

The children wouldn't have been as shocked by the unfamiliar experience since it gave them a sense of what a competition would be like without really entering one. With their newly acquired knowledge, our sixth-grade students may now advance to our FTC.

They traveled to Northern Michigan University for the first time in 2022 to compete against other

schools. This exposed them to other viewpoints, allowed them to meet new individuals, and introduced them to gracious professionalism. They also had to experience judging a time when students go in front of three adults and tell them about their robot design and innovation project, which is a solution to a problem they are given that season.

During the 2023 season, we upgraded two more teams to spike prime robots from the EM3 robots that had been used, increasing the difficulty of learning a whole new robot.

Students saw their robots in action during the NMU tournament, as well as the robots from other schools forming friendships while competing.

## 6.4 History of FTC

In 2021, the seven students that comprised the BetaWolves FTC squad, 19679, signed up. We finished second overall in our first year of competition, which unfortunately did not earn us a spot in the State Competition but being our first year, it was a nice welcome to expect as we compete in the upcoming years. We also participated in an off-season competition called the Spring Fling, hosted at Kingsford High School. Their students had a whole different feeling. It was a chance to learn and gain experience; besides just one competition, they had two under their belt. At the Spring Fling, they were able to come home with a winning trophy.

Our seven-person team qualified for the state competition in Howell, Michigan, after winning the district tournament this past season as the number one alliance, giving them the notion to pick their teammate, the Silver Hornets. Continuing to dominate, only losing once in the elimination rounds. Though this season had a lot of challenges, the students were able to overcome them with the support of their mentors. Being a team of strong people makes teamwork one of our advantages.



Year: 2021 Game: Freight Frenzy Driver: Miles Tickler



Year: 2022 Game: Powerplay Driver: Colton Klee



Year: 2023 Game: Centerstage Driver: Austin Ross



## 7.0 Team Budget

## 7.1 Team Income and Expenditure



BetaWolves 2024 Income Statement					
Revenues					
	Carryover from 2023	9000			
	Grants	10700			
	Sponsorship Partner	12679			
	Fundraisers	1067			
	Returnable Cans	570			
Total Revenue		34016			
Operating Exper	ises				
	Food, Uniforms, SWAG	2350			
	Events and Travel (Including State Championship)	15790			
	FRC Robot Materials	5080			
	FTC Costs (Including travel to State Championship)	6860			
Total Expenses		30080			

BetaWolves 2024 Balance Sheet							
Sources of Funds							
	Sponsorship Partner	9000					
	Grants	10700					
	Sponsorship Partner	12679					
	Fundraisers	1067					
	Returnable Cans	570					
Total Assets		34016					
Uses of Funds							
	Food, Uniforms, SWAG	2350					
	Events and Travel (Including State Championship)	15790					
	FRC Robot Materials	5080					
	FTC Costs (Including travel to State Championship)	6860					
Total Expenses and Liabilities							

## 7.2 Sponsorship packet

# Sponsorship Information Packet



Supporting our Future Engineers









## About Team 6637, the BetaWolves of Carney-Nadeau

### Who are the BetaWolves?

Team 6637, The BetaWolves, is comprised of subteams working together to bring STEM to our school and community.

#### **Team Fabrication**



#### Team Programming



CAD Team

#### Team Marketing



#### Design Team





#### Safety Team



## Electronics Team



"FIRST is more than robots. The robots are a vehicle for students to learn important life skills [and] leave, even after the first season, with a vision, with confidence, and with a sense that they can create their own future."

Kamen, founder of **FIRST** 

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## How Your Support Changes Lives

With the help of our 2017 and 2018 sponsors, we were able to attend the MI state Championship in Saginaw both in 2017 and 2018, along with the World Championship in St. Louis in 2017! Becoming a 2018 BetaWolves sponsor will impact the lives of every member of our team, school, and community.



### **Team Activities**

BetaWolves Night Pancake Breakfast and STEAM Activity Day Robots at the Library Game night Adopt-a-Highway Cleanup

Help support our school by working the concession stands

Pumpkin Palooza Beta Bash

## ``Other BetaWolves Accomplishments:

2017 Awards 2017 Rookie Inspiration Award 2017 Highest Rookie Seed 2017 District Championship Rookie All-Star Award 2017 Michigan State Championship Highest Rookie Seed Award 2017 Michigan State Championship Rookie Inspiration Award

#### 2018 Awards

2018 Excellence in Engineering Award 2018 Michigan State Championship Team Spirit Award

#### 2019 Awards

Entrepreneurship Innovation and Control

2020 Awards 2020 Auton Award

2022 Awards 2022 Innovation in control Award 2022 Winner- Escanaba 2022 Chairman's Award 2022 Chairman's Award-States

## 2023 Awards

2023 Innovation and control Award



2023 Sustainability Award

"Once a kid realizes they have the power to create a solution to a problem, it's transformative. They'll never go back." - Dean Kamen, founder of *FIRST* 

## Past, Present, and Future Goals

#### Our Rookie year

Establish a team in our community Learn about pneumatic pistons Develop autonomous mode Be competitive



#### 2018 Season

Build our community outreach Develop a pneumatic driven gripper Fabricate a chain driven three stage elevator Improve autonomous driving functions Evolve marketing strategies

### 2019 Season

Learn and utilize CAD Develop our engineering process Build a new game object manipulator Create a shooter system Strengthen our team communication





## 2020 Season

Better our FTC team Expand the team Survive Covid

### 2022 Season

Efficient climber Become more sustainable Become more educated about swerve drive Get to world competition Move into new lab





#### 2023 Season

A better scouting system Update Business Plan More team bonding Update our swerve drive Keep updating lab

### The Future of the BetaWolves

Continue to grow our program Be an inspiration in our school and community Cultivate leaders Continue to advance our STEM knowledge

## BetaWolves Sponsorship Levels

Sponsor Information	Example Costs Covered								
Alpha Sponsor (\$3,000+)									
Your company is listed as a Title Sponsor with the FIRST Robotics Organization and announced in the stadium at each competition. Your company is recognized on the FIRST website + Beta	\$6000 - covers registration fees for 2 district competitions \$5000 - covers the cost of registration for the State Competition								
Beta Sponsor <i>(\$1,500 - \$2,999)</i>									
Logo on robot + Omega	\$2,500 - covers the cost of the entire team's room and board for LSSU competition								
Omega Sponsor (\$500 - \$1,499)									
Logo on banner + Gamma	\$1,200 - covers the cost of the entire team's meal plans for LSSU								
Gamma Sponsor (\$16	00 - \$499)								
Logo/Company Name at all events + Sigma	\$450 - roboRio \$400 - Limelight Camera \$225 - Bandsaw \$100 - 1 team member's room and board for Alpena competition								
Sigma Sponsor (\$2	25 - \$99)								
Company's name and logo appear on the team website and Facebook page.	\$80 - set of bumpers \$90 - Talon Motor Controller								

663 - S

## Sponsorship Form

Company Name:							
Contact Name:							
Contact Phone Number:							
Contact Email:							
Company Address:							
State:	Zip Code:						
My organization would like to become a:	My organization would like to help by providing:						
O Alpha Sponsor (\$3000+)	O Access to facilities (machine						
O Beta Sponsor (\$1,500 - \$2999)	shop/storage/practice facility)						
O Omega Sponsor (\$500 - \$1499)	O Equipment/software						
	If providing facilities or equipment/software, please specify:						
O Gamma Sponsor (\$100 - \$499)							
O Sigma Sponsor (\$25 - \$99)							
Please mail checks to: BetaWolves Carney-Nadeau Public School 151 US 41 North Carney, MI 49812	Please contact us for more information: team@betawolves.org 906-398-3052						

Thank you for supporting our future engineers!

## Team Sponsors Thank You Posts

We appreciate all our sponsors, giving them a huge shoutout for all they have done for the team. To show our appreciation, we give them a little blurb on our Facebook page to indicate what they have done for the team.



DTE Foundation

(~) Send

🖒 Like

() Comment

Good luck to those competin

Share







## The BetaWolves - Team 6637

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A big thank you to DEBACKER FAMILY DAIRY, LLC! For the last six years, they have been a major sponsor for the team. Your donations have helped to cover supplies for the robot, hotel accomodations, and meals for the team during competitions! Thank you for your amazing continued support!



## <u>8.0 Final Statement</u> A Note From one Alumnus

"My name is David Green and robotics at Carney-Nadeau has impacted me greatly beyond high school and into college. I was on Carney's first ever robotics team in 2017 during my senior year. It was a fantastic way to finish up my high school career as it prepared me for a few things which directly affected college. My major is aviation maintenance up at Northern Michigan University, so I will have my A&P license (airframe and powerplant) to work on aircraft of all kinds; from small, general aviation types to large airliners, to helicopters.

The portion of the robot I took the most charge of during the building process was the pneumatic system. I got to learn it all by myself because we were shorthanded, and my coach was confident in my abilities. He basically said: "Here you go David!" I was happy to take on the challenge. I got the system figured out, planned out how it was going to be mounted on the bot once the rest of the team decided what we needed it for, and installed everything. Now, fast forward a year and a half, I just finished projects in aviation class about pneumatic systems. The aircraft use pneumatic systems for deicing the wings, actuating controls, and even to blow water off the windshield instead of using wiper blades. It helped me tremendously at that point in time because I was feeling behind in another aviation class dealing with turbine engines. I was able to lean on the information I already knew about pneumatics and put more focus on the other class that really needed it.

So, besides that, robotics introduced me to a lot of different kinds of people. Carney is a small school and it is a big deal to leave the UP sometimes, so meeting so many people really prepared me for coming to a bigger four-year university such as Northern. I was a good learner to begin with, but robotics really gave me that extra push to go out of my comfort zone. There were quite a few things that I had no idea about and being a senior trying to get ready for college, I had to push to get things done because my team was relying on me. Besides that, it helped me make some new friends to keep in touch with while away from home and great contacts to ask for help at college."

-David Green, Aviation Maintenance Major at Northern Michigan University, March 2019

## 9.0 Team Contact Information

Email the BetaWolves at team@betawolves.org Contact the BetaWolves through the school at (906) 398-3052 Contact us through social media: Facebook: The BetaWolves – Team 6637 Instagram: @betawolves6637