

## TEAM ORIGIN

To enhance the new STEM Academy at Bensalem HS and provide students a well-rounded, hands-on STEM education, Bensalem Township School Board Member Kevin McKay sought to start a FIRST Robotics Team. In 2014, the team was founded with 19 students and only three mentors. In the 2017 season, we faced many challenges including the tragic loss of one of our team members. Despite this tragedy, we were able to win our way to the fourth rank in our region. At our first event of that year, we won the Engineering Inspiration Award, which to this day is one of our proudest accomplishments. At the end of the regular season, we were third place at our district championship, where we won our third Industrial Safety award of the year. We then progressed on to the World Championship in St. Louis for the second year in a row and finished 23rd in our division. Last year was not as successful as previous years, ranking 57th in MAR. We did, however, make it to the Mid-Atlantic District Championship where we finished 60th and won the District Entrepreneurship Award. Despite the setbacks we faced, we learned many valuable lessons which we hope will help us succeed this season.

During the last two years we have been fortunate enough to experience life-changing opportunities and grow through heartbreaking events but through it all, we came together as a family and supported each other.

## MISSION STATEMENT

We enhance students' interest in STEM and business fields by engaging them with experienced mentors that challenge them with real-world situations that build character and foster a lifelong appreciation for teamwork.

We believe that everyone is welcome on this team, no matter their ability or interest they can find it in something we do.

We are not just an after-school club. We are a professional organization and competitive sport, preparing the next generation of engineers, entrepreneurs, and leaders.

We choose to be a self-funded team so we aren't a strain on the school district's financial resources. Additionally, we collect no dues from team members because, as a Title 1 School, we do not want financial constraints limiting participation.

We are committed to promoting and supporting STEM education at all levels both in our school district and in our community as a whole.

We participate in community service and outreach to show our team spirit, introduce others to FIRST, and give back to the community that supports us.

We will grow, mentor, and sustain a family of FIRST teams at all levels throughout Bucks County.

## ORGANIZATIONAL STRUCTURE

Team 5401's Leadership Team includes four student leaders; Program Manager, Chief Marketing & Operations Officer, Chief Engineer, and Lead Safety Engineer, and 10 mentors. Our goal is to be a student-run team, with mentors there to provide guidance as needed. Our team holds weekly meetings throughout the offseason, including summer, and meets four times a week during build season. Outside of meetings, our team utilizes collaborative communication tools like Slack and Google Drive to get and share information. Over the next few years, our team's leadership will encourage members on the team to volunteer with our elementary and middle school FIRST teams. With this method, we hope to develop a passion for STEM in these students and increase their interest in our FRC team.

## MARKETING

Social Media Marketing is our team's primary marketing strategy. This is an easy, free way to get our team's message and brand out to our community and to increase our brand awareness with the local community, creating a loyal audience. To curate content to our target audiences, we analyze our followers' engagement, adjust our marketing strategies, and schedule different posts in each outlet: Facebook, Instagram, and Twitter. For example, a lot of our Twitter followers like animals, so we do a weekly picture update of our team's therapy dog. On Facebook, the parents of students on the team like being updated about our team so we tend to post about incoming events and fundraising opportunities. On Instagram, our followers interact more with our #MemeMondays, where we post FRC related memes and are consistently our most liked posts. Due to our consistent Social Media Marketing strategy, we have gathered an engaged group of followers who pay attention to what we have to say and will respond when we give them a call to action.

Additionally the we write and distribute press releases to various local media outlets to help spread the word about all of the great things we are doing. To date, our press releases have gotten us media coverage in: CBS Philly. The Bensalem Patch, The Bucks County Courier Times, The Bensalem Times and WLVT-TV- PBS 39.

## FINANCIAL PLAN

Our teams two major sources of income are fundraisers and sponsorship's. We hold one major fundraiser in the fall, our Designer Handbag Bingo, which raises over \$5,000 for the team. We also hold a variety of smaller fundraisers throughout the year which raise approximately \$2-3,000. Examples include Dine to Donate at local restaurants, Boscov's coupon sales, and 31 Days of 31 raffle ticket sales. In addition, we have 8 sponsorships that generously support our team through monetary and in-kind donations that total over \$30,000. For example, one of our team-level sponsors, Pennsylvania Steel, is a Bensalem based in-kind sponsor that donates most of the aluminium needed for the construction of our robot. We also recruit sponsors that share our mission of spreading FIRST in Bucks County so that the FIRST teams we establish start off their rookie year with some financial assistance. For example, we helped established Team 6808 at William Tennent HS and have shared two sponsors with them, Boeing and DoD STEM, who's \$5,000 full covers their registration fees. We also started two FLL teams and our generous sponsor, DoD STEM, is fully covering their rookie season fees.

## RISK ANALYSIS

### STEM/FIRST Outreach - Strength

As a team, we are committed to promoting and supporting STEM education at all levels both in our school district and in our local community as a whole. In our district, we have started two FLL teams at two of our Elementary Schools and two FTC teams at our middle schools. Additionally, we host a free summer camp for middle school students in our district where they take part in a mini FRC style season and competition using Vex Robotics. In our community, we utilize a unique method for starting FRC teams at nearby high schools. Our strategy is to take a group of students and teachers from a local high school and have them join our team, where they help design & build our robot. The following year, with continued help and support from us, they will form a veteran core to a unique rookie team.

### Communication Within and Between Sub-Teams - Weakness

One of the challenges our team faces is communication. Subteams fail to communicate with each other and they struggle internally with vague and infrequent communications. Using delegation and task tracking through Trello and our custom made PDM (Project Data Management) tool, communication within and between subteams can become a strength.

### Member/Family/Community Engagement - Opportunity

We want to become more assertive in how we communicate the importance of engagement with the team to our members, parents, and community. We are going to use this opportunity to by a District Event that will bring these groups together to see the importance of our team and FIRST in the community.

### Loss of Significant Mentors- Threat

Our team relies heavily on a few key mentors that provide very valuable knowledge that would be challenging to replace. For example, last year one of our lead mechanical mentors missed most of the build season and this had a significant negative impact on our team. To prevent this from happening in the future, we are going to recruit additional mentors to our team that has mechanical skills or prior FIRST experience. We have already recruited an additional Mechanical Engineer as a mentor and are recruiting others with the FIRST experience.

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### STRENGTHS

- The equipment and the space the school provides us.
- Unique relationships with sponsors STEM/First Outreach

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### WEAKNESSES

- Member/family/community engagement
- Communication between subteams
- Management of resources

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### OPPORTUNITIES

- Community Engagement
- Teamwork
- Knowledge transfer

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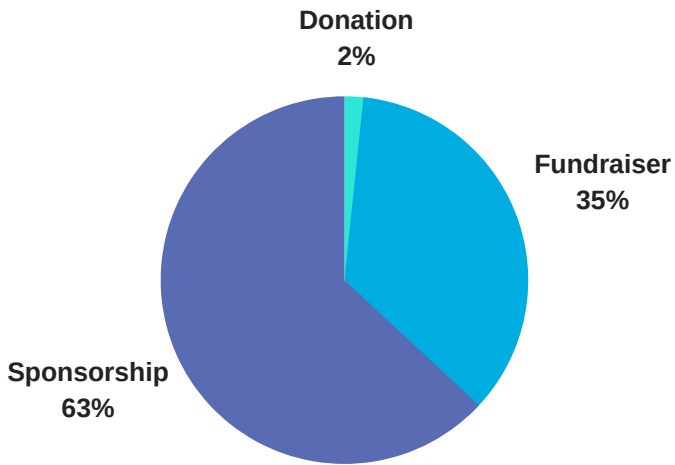
### THREATS

- Lack of sponsorship diversity
- Loss of crucial mentor(s)

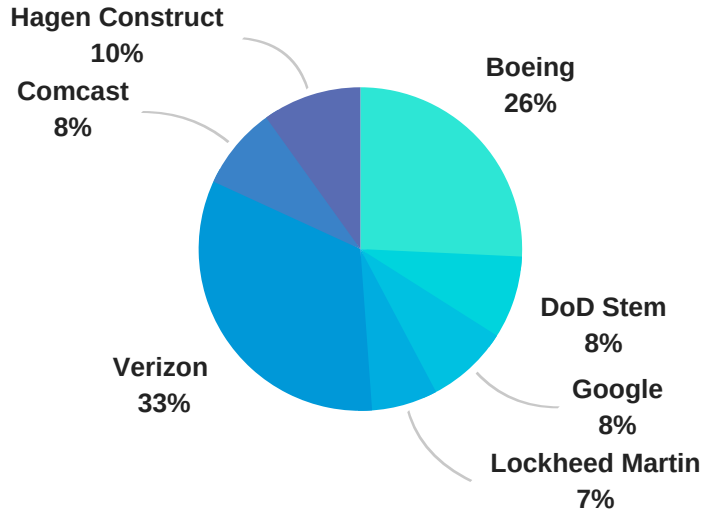
# FINANCIAL SUMMARY

**INCOME: \$33,700**  
**EXPENSES: \$19,533.06**  
**CASH ON HAND: \$9,983.01**  
**CASH IN FIRST ACCOUNT: \$7,000**

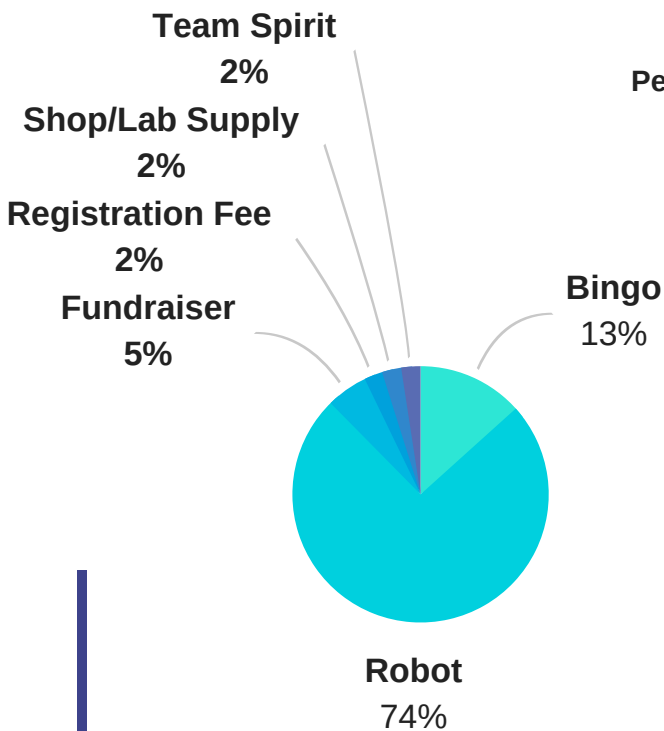
## INCOME SOURCES



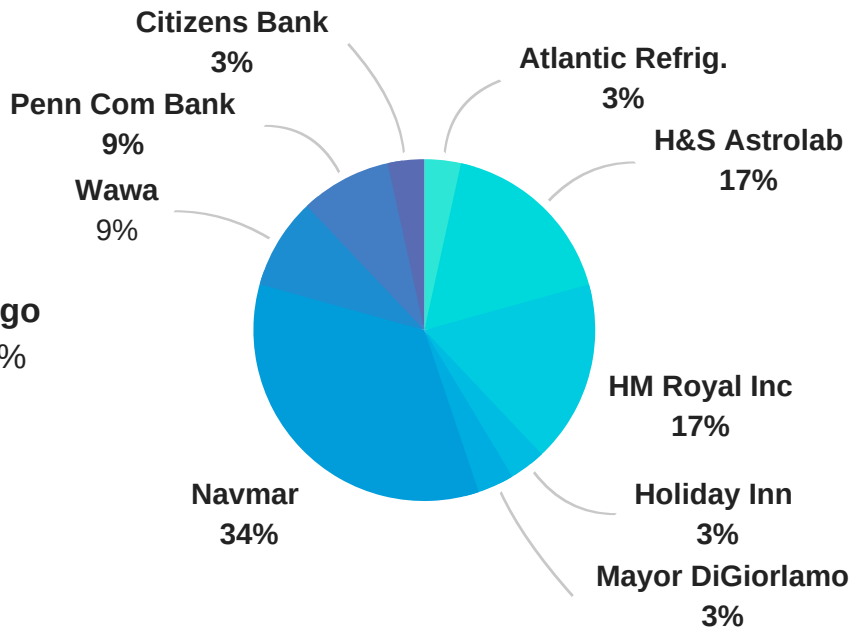
## TEAM SPONSORS

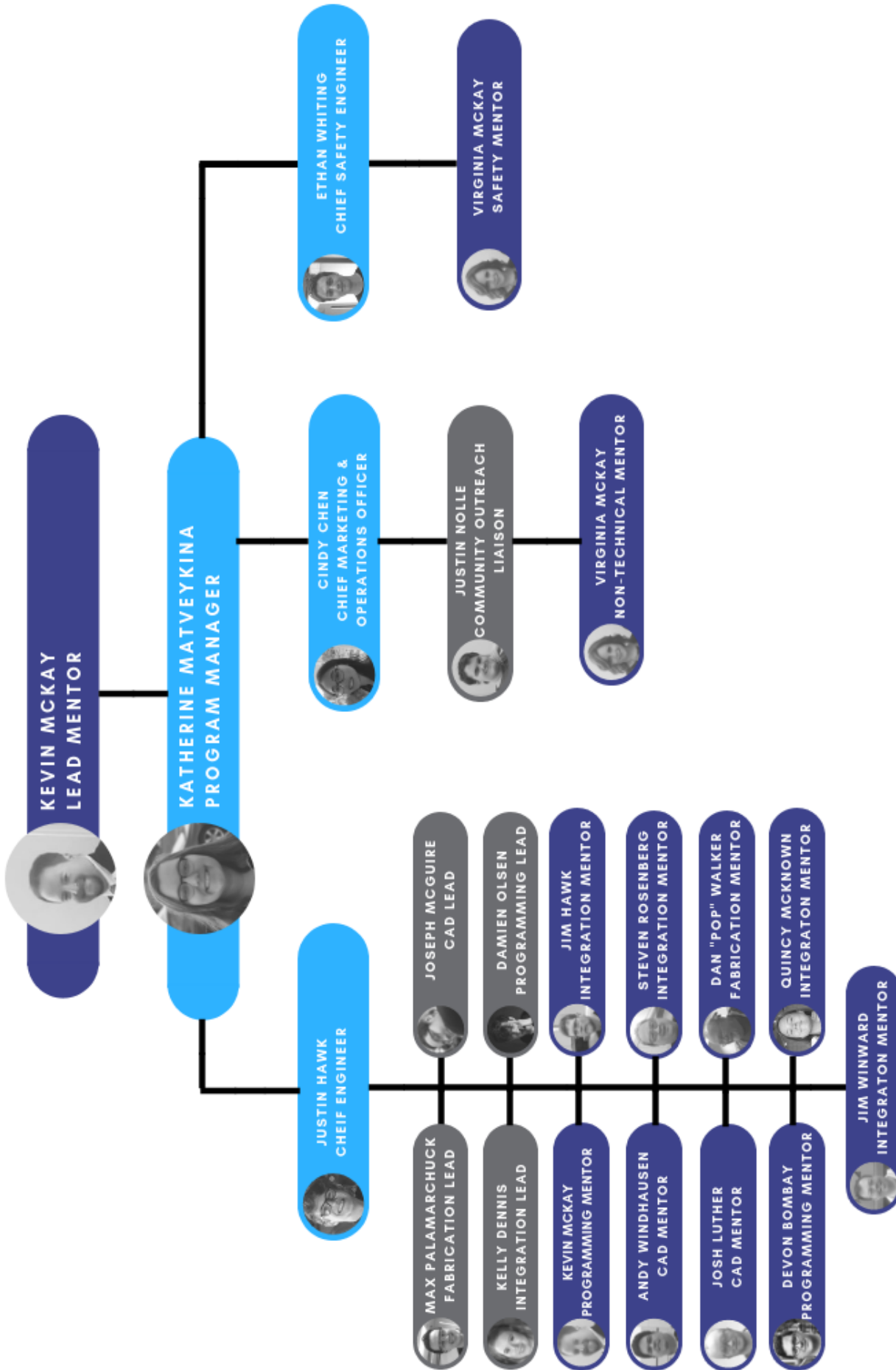


## EXPENSES



## DISTRICT EVENT SPONSORS





## FUTURE PLANS

### Scholarships

Our goal is to have FIRST Scholarship money received by students on this team be double the total amount of our sponsorship funds received. Our strategy is to invite school guidance counselors and representatives from local colleges to attend a team meeting where they go over the college admission process and the FIRST Scholarship database.

### FLL Outreach

Our goal is to create six more FLL teams at our elementary schools in the Bensalem Township School District over the next two years. Our strategy is to work with Bensalem STEM teachers at the schools to organize teams and send our team members to mentor their students. Through this method, we hope to grow the number of students that have an interest in FIRST. We have already created this process at two elementary schools in our district and have received great feedback from teachers, administrators and school board members about our efforts.

### FTC Outreach

This year we registered two FTC teams at our two middle schools here in the Bensalem Township School District. Like we did with our FLL teams, next year we are going to have our members mentor these two teams and help them successfully complete next years FTC challenge.

### FRC Outreach

Our goal is to continue spreading FIRST Robotics in Bucks County by helping other high schools start their own FRC teams. Our strategy is to take a group of students and teachers from a local high school and have them join our team for a year. The following year, with continued help and support from us, they will form a unique rookie team with a veteran core. This year, we are doing this with Neshaminy High School. We previously started an FRC team with William Tennent High School two years ago and Team 6808 WT Robotics finished their rookie season last year. In three years, we have increased the number of FRC teams in Bucks County by 66% and over the next three years, our goal is to increase that number by an additional 60% by helping three additional high schools establish FRC teams.

### EITC Funding

Our goal is to increase the volume of sponsorship dollars we receive by participating in Pennsylvania's Educational Improvement Tax Credit Program. Our strategy is to invite local businesses to become EITC donors by informing them they can receive a 75% tax credit for a 1-year donation commitment and up to a 90% tax credit for a 2-year donation commitment. We already have a company lined up to be our first EITC sponsor this June when the EITC funding portal opens.