



**F.U.T.U.R.E**  
FOUNDATION

## Future Foundation Recycling Challenge 2018

Team 2886B- John Hardin High School



### Team Members

Nathan Foullong- Captain  
Noah Bohannon- Head of Building  
Patrick O'Boyle- Head of Design  
Connor Lewis- Head Programmer  
Lucy Sonsalla- Head of Social Media  
Chase Croley- Head Scout

## **Future Foundation Recycling Challenge**

For this challenge, we decided to solve a real world problem: as a Vex organization with several teams, we often need to fundraise and secure sponsorships to keep all of our hefty expenses paid. Because our sponsors are so integral, we make sure all of our social media sites advertise the sponsors that help keep our program running. Even though it's quite easy to advertise online, we often have difficulty advertising in the real world. Usually our medium is simply a banner, but we oftentimes have trouble finding places to hang it. Therefore, our objective for this challenge was to create a product that would allow for the hanging of a banner in an open area.

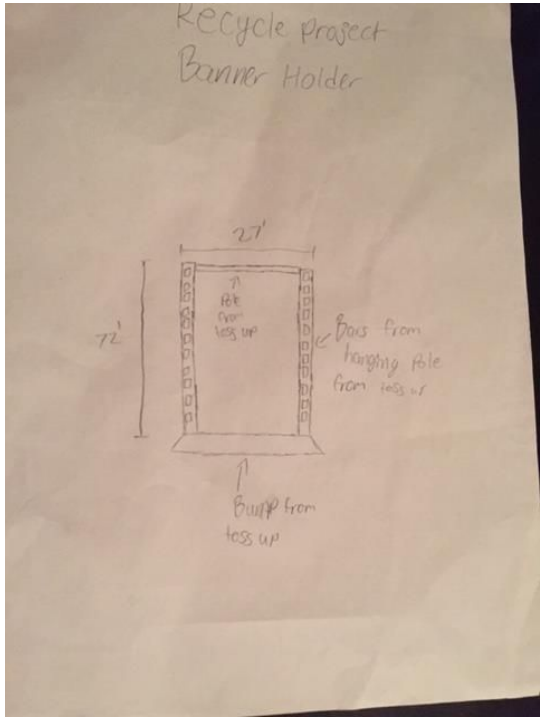
Our initial thoughts were to use cubes and some of the fence pieces from Skyrise and Starstruck to create a stand. However, the cubes were too bulky, and there was almost no way to secure the fence piece to the cubes. After rethinking our plan, we did some research on past game objects and found the perfect piece, the hanging bar from Toss Up. The bar was almost in the configuration we needed to fit our purpose; we only needed to make a base and a stand to extend its height. To make the base, we took a section of the trapezoidal bump from Toss Up and cut it down to the width we needed. Then, in order to make the hanging section higher, we took a second hanging bar, removed the bars from the stand, and connected it to the current stand by drilling holes through both and securing bolts through them. Finally, we took a few side struts and drilled through them, the base, and the base of the stand, bolting through them all to connect the stand to the base. Finally, we found ourselves with a functional banner stand. Our stand will be very useful in the future, especially at larger competitions to advertise our sponsors along with our accomplishments.



Noah drills through the hardened steel stand in order to push the securing bolt through. The steel was so sturdy it broke one of our drill bits!



Lucy, midswing in an attempt to bend the bottom part of the metal to a 90 degree angle so we can properly secure it to the baseplate.



An early sketch by Noah about what the banner holder would look like with some estimated dimensions. This was a surprisingly accurate representation.