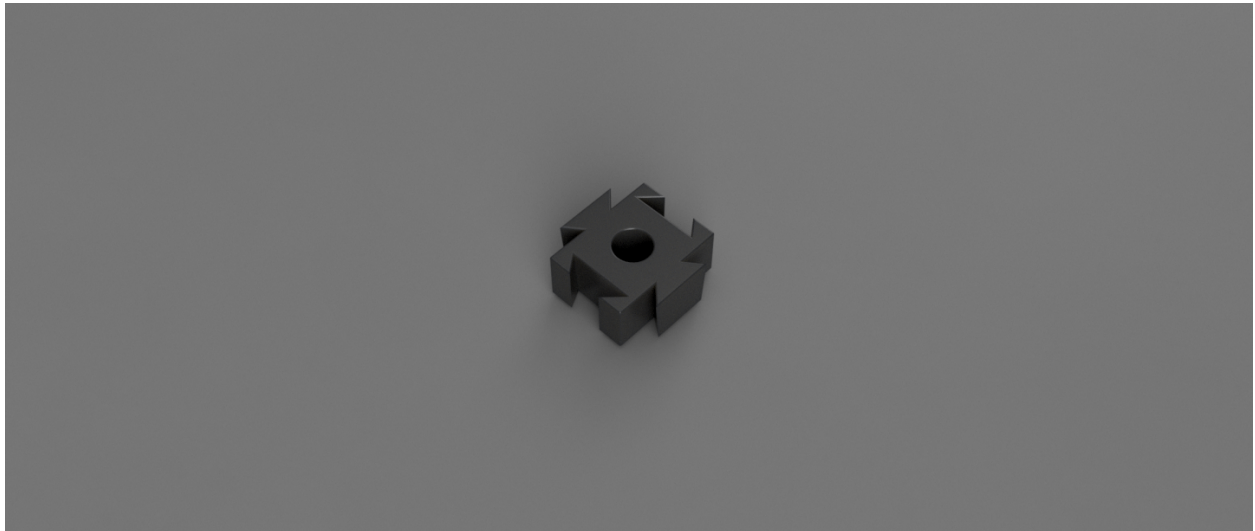


# 7368W “Anxiety”

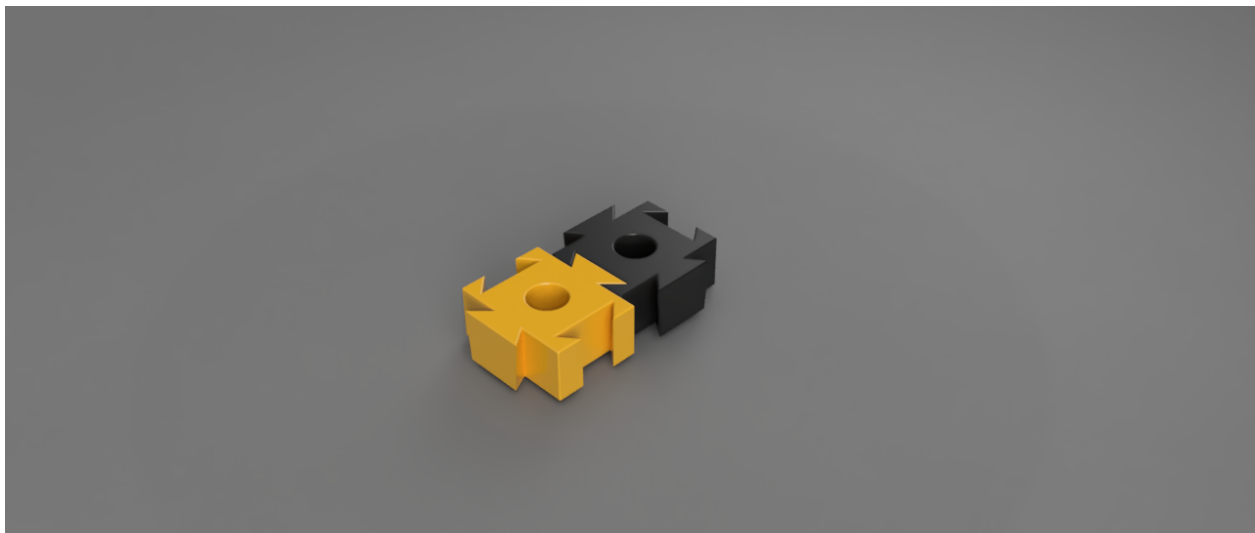
## **VEX Online CAD Challenge**

### Modular Bearing Block

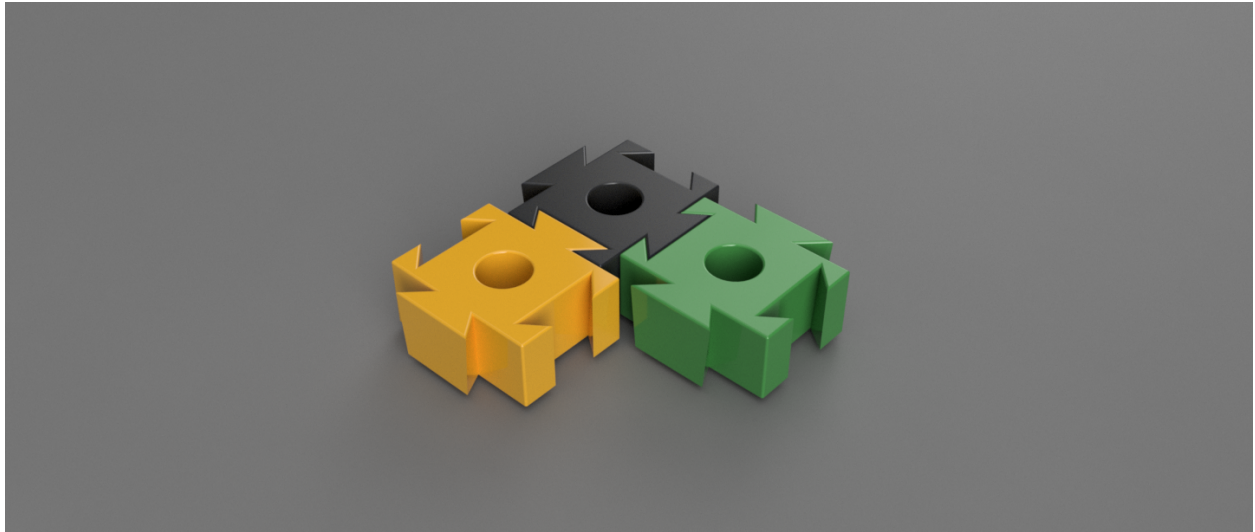
A problem that our team has commonly encountered this season in building new robots was the lack of versatility in our materials. Sure, you can cut metal and bend plastic, but each time you do that it damages the piece and makes it less usable for new designs in the future. We decided to address this problem in one of the most commonly used, but most easily damaged parts: bearing blocks. Bearing blocks are what we use whenever we want to keep something aligned in VEX, however they wear out over time and we often wish they could be in different sizes and types than just a 3 hole line. This is our solution comes in: a fully modular and replaceable bearing block. Using dovetail fittings and a bit of clever design, we came up with this:



While the design is simple, it has infinite possibilities. You can make any configuration of bearing block you want, simply by pushing them together like LEGO pieces. This is especially useful this year, where people are having a hard time finding ways to mount intake rollers so that they fit in the size limit. To assemble these bearing blocks, simply line them up and press them together with your hand, and they will lock together due to the contoured dovetail grooves to each side.



Each additional piece is added 90 degrees rotated to the side, allowing for infinitely large bearing blocks! You can even add them on corners to make uncommon assemblies to fit in tight spaces.



These modular bearing blocks open up so many more possibilities for robot building, and we hope to see them used someday in VEX.