

# **“Dynamic Four-Motor Gearbox”**

Team Number: AUBIE1

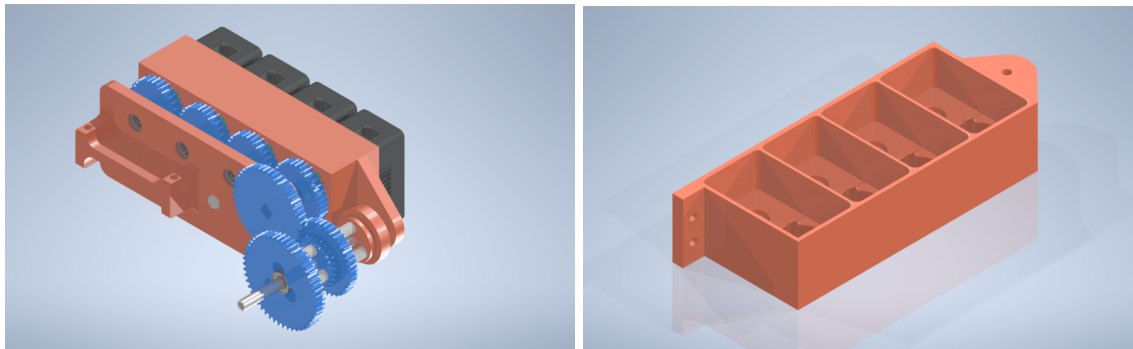
Team Location: Auburn, AL

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Stockman

## Final Report:

This project is a gearbox designed to hold four motors. The center-to-center for each motor is designed to fit the smallest gears (33 tooth) before the motors would interfere with each other. The flange on the outside is for the last center-to-center which is from the last motor to the shifting area. The gearbox also has three holes to mount to a plate which interfaces with c-channel. Overall, this solves the problem of not being able to fit four motors side-by-side in a compact area using vex structural parts. In this project, we used Autodesk Inventor 2022 and used various features. These include extrude, hole, sketch, project geometry, and fillet.

Renders of our design can be found below:



Here is an image of the printed part in action:



Thank you for taking the time to view our submission!