

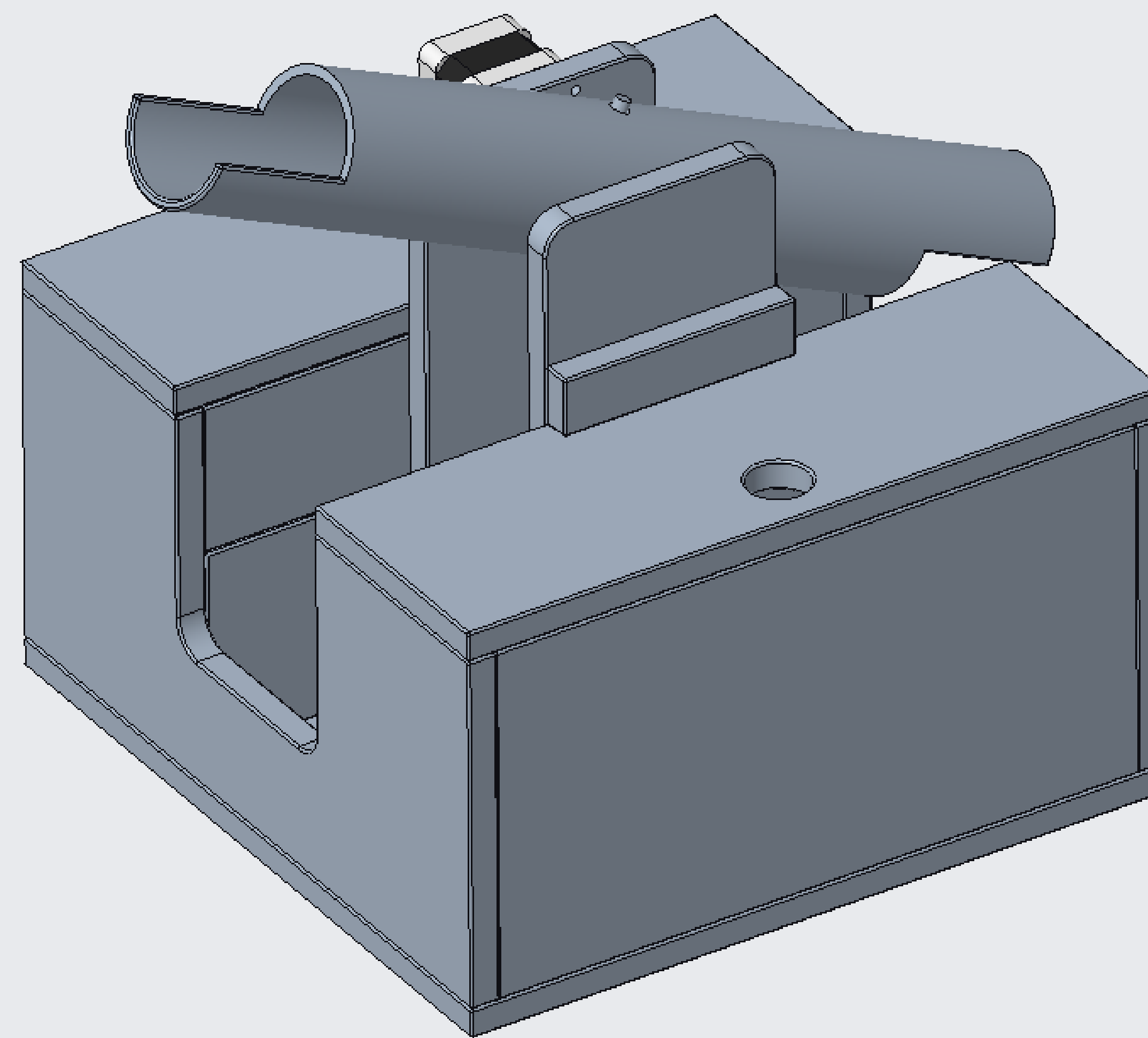
BENNYBOT LAUNCHER

- This launcher is a subsystem designed to be retrofit onto a larger system named the "Bennybot" robotic mascot.
- The larger overall "Bennybot" system is handled by MIME.805.
- The launch system has one Nema-17 motor, a bearing, fasteners and the rest are custom components manufactured in the shops in the basement of Rogers Hall.
- This subsystem was originally conceptualized as a t-shirt launcher. Due to budget limitations, the decision to downsize was made.



CATAPULT LAUNCH SYSTEM

Sports Ball Launcher: This system is meant to capture the attention of potential students and generate interest in the MIME program.



DESIGN

- Pictured above is the CAD model generated in Creo parametric 3D modeling software.
- CAD models generated weight estimates of custom components for the BOM.
- CAD modeling allowed for concise hole and part placement, as well as concise dimensional fitting between stock and custom components.
- 3D modeling makes creating detailed drawings fast, which is beneficial to design for assembly.

PROTOTYPE

- Pictured above is the prototype launcher fully assembled and missing one final cut to the PVC.
- The structural components are 1/2" plywood.
- There are two rods that were crafted using the lathe, end mill, and other tools in Rogers Hall machine shop.
- The rotational launch tube is standard PVC pipe.
- The projectiles and Nema-17 motor came from amazon.
- The bearing came from Wilco.
- The majority of the fasteners came from Rogers Hall assembly room.

BENNYBOT MASCOT

- This launch system is meant to be retrofit onto a vehicle driven by a benny the beaver mascot.
- The "Bennybot" robotic mascot is handled by MIME.800.
- Bennybot is a remote-control robotic mascot that will feature Benny the beaver as the driver and incorporate the launch system to appear as it's tail.
- The Bennybot vehicle is going to resemble a mini version of a Baja vehicle like the one pictured below.

