

# **GNG 1103 – Engineering Design**

Faculty of Engineering

University of Ottawa

## **Prototype II and Customer Feedback**

### **Group 9**

**Derek Villanueva, Trey Belanger, Berk  
Orkmez, Tim Maley**

## **Abstract**

This document focuses on the feedback we were given from our client and the steps we are taking to impact design choices and improve our solution. Prototype 2 testing and test results are included in this document and a test plan for prototype 2. In addition, updates to prototype 1 are included in the document.

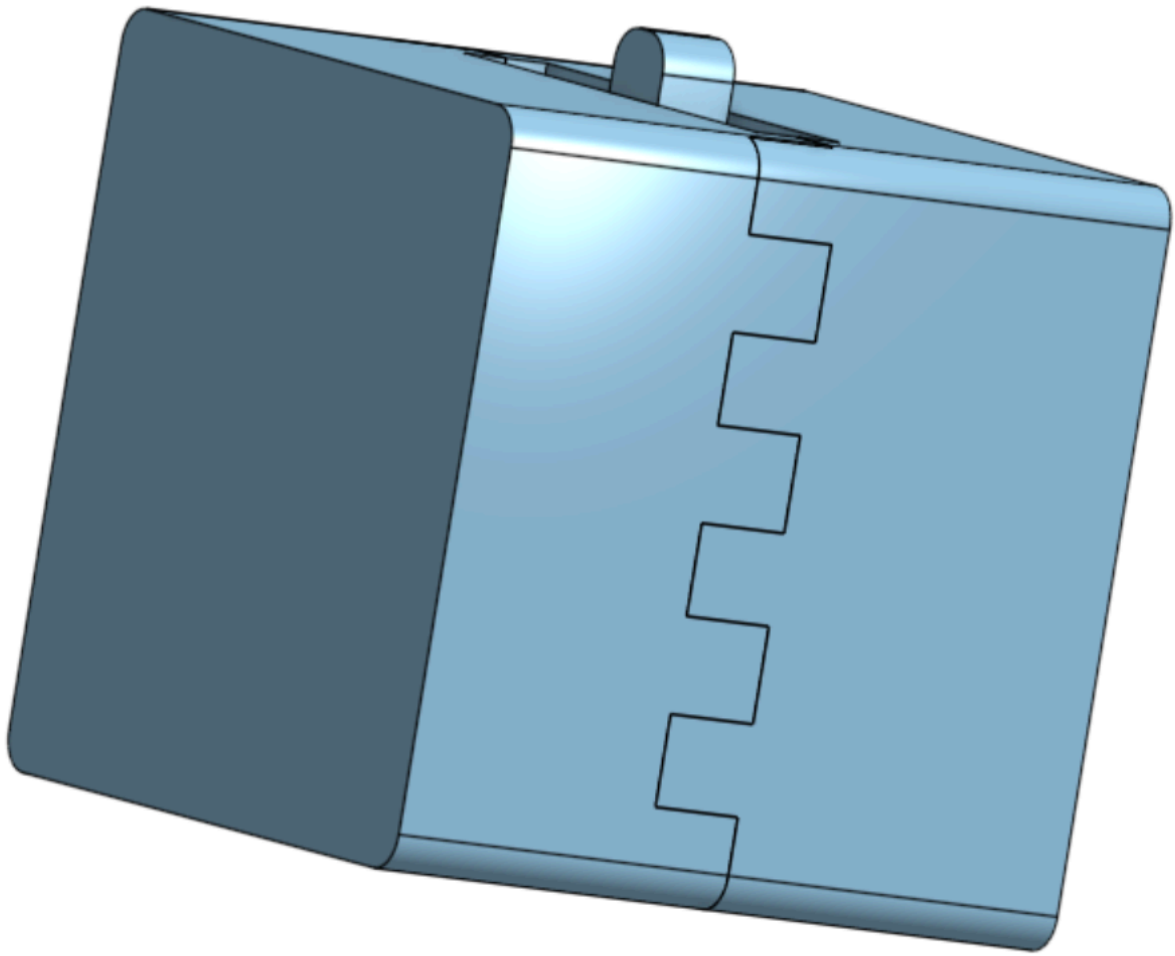
## Table of Contents

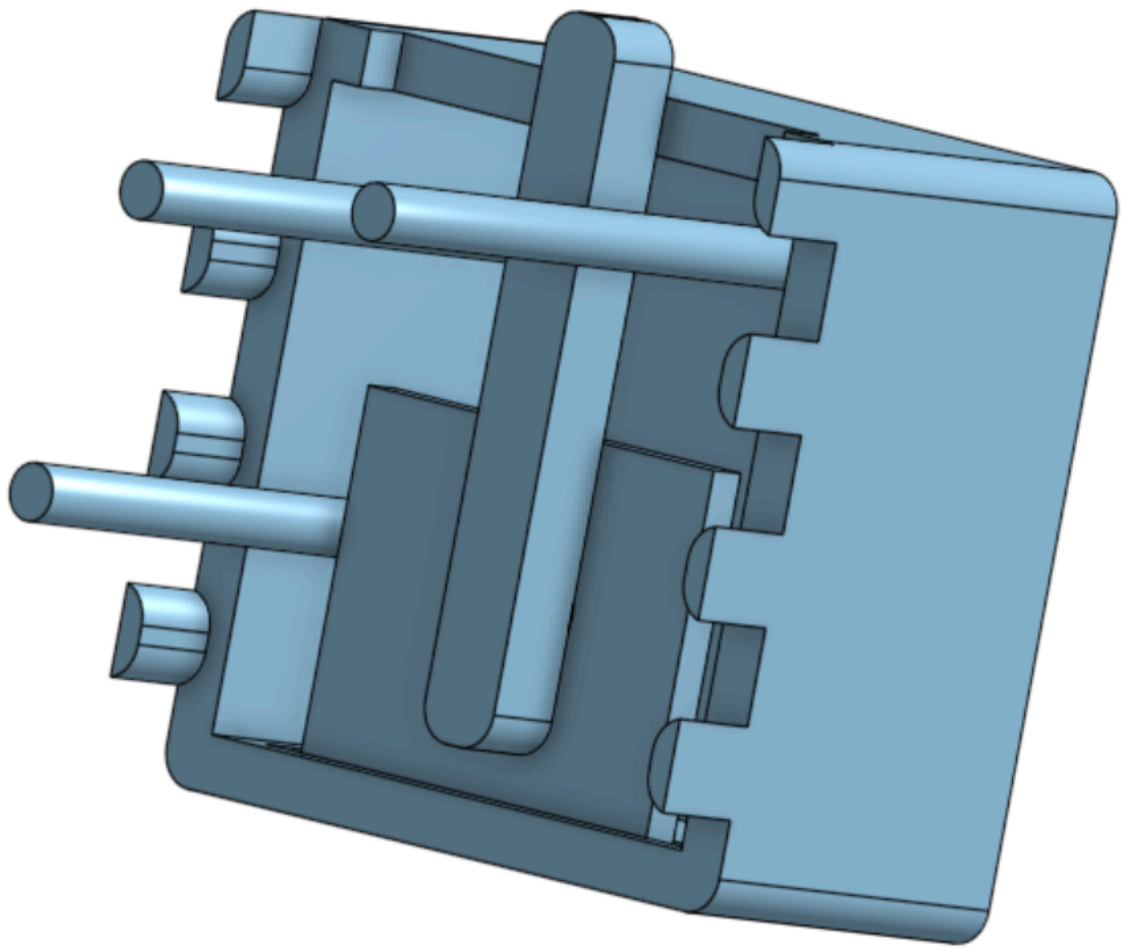
<b>Client Feedback and Prototype 1 test results.....</b>	<b>4</b>
<b>Prototype 2.....</b>	<b>8</b>

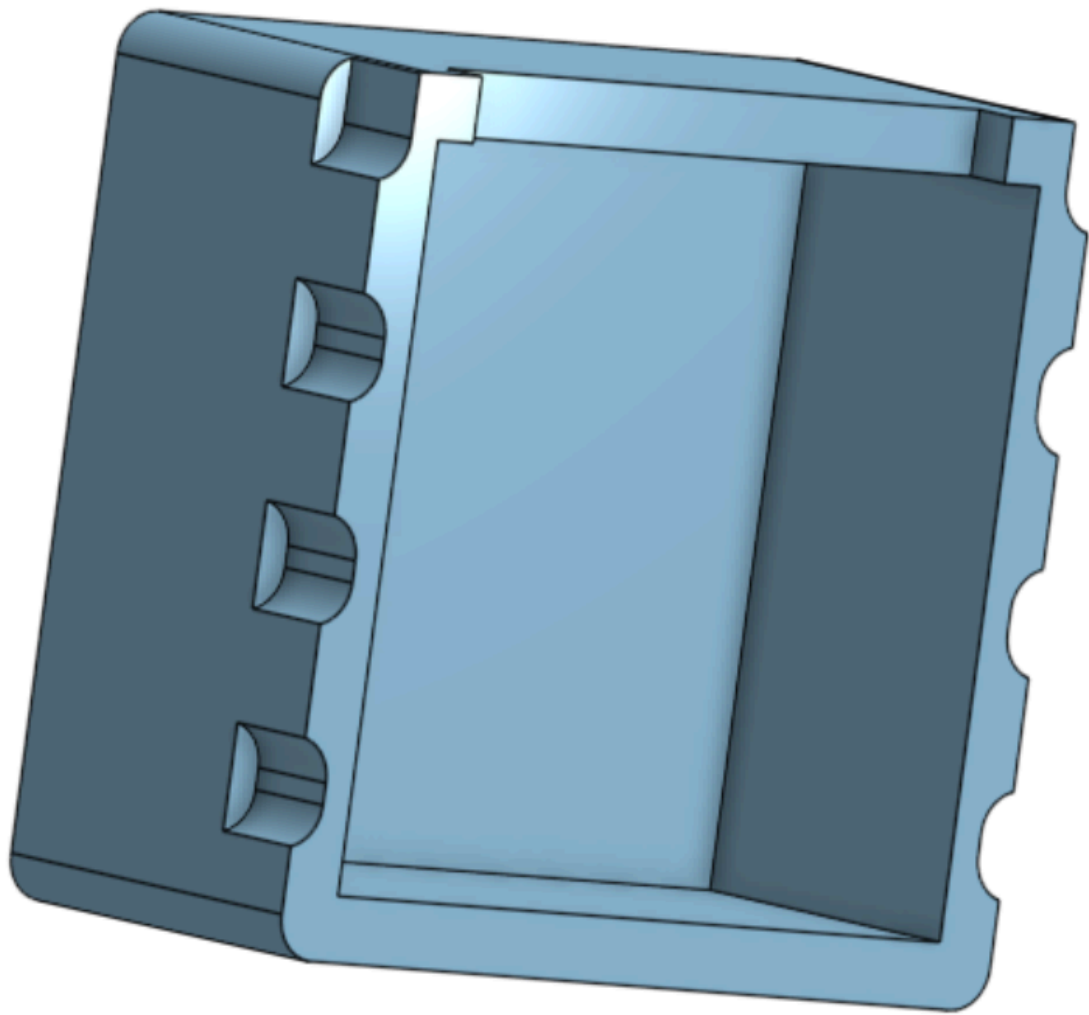
## Client Feedback and Prototype 1 test results

Based on our presentation to our client and peers, we received feedback on Prototype 1. Our client expressed concern about the lever mechanism “flip-flopping” during rotation, causing the scraper to open and close unintentionally. Scott suggested a locking mechanism for our lever to ensure the scraper is deployed and scraped throughout the rotation. From this feedback, we have started brainstorming and adjusting our design to incorporate a locking mechanism for our lever/cable system to ensure our blade scrapes cleanly.

After conducting 3D printing and fitment tests with our first prototype we noticed that we had to change our fitment design. The 3D printer was not able to print the studs and the holes accurately and the space between the walls and the studs. To fix this with the guidance of a CEED employee we opted for teeth around one edge divots on the other edge.

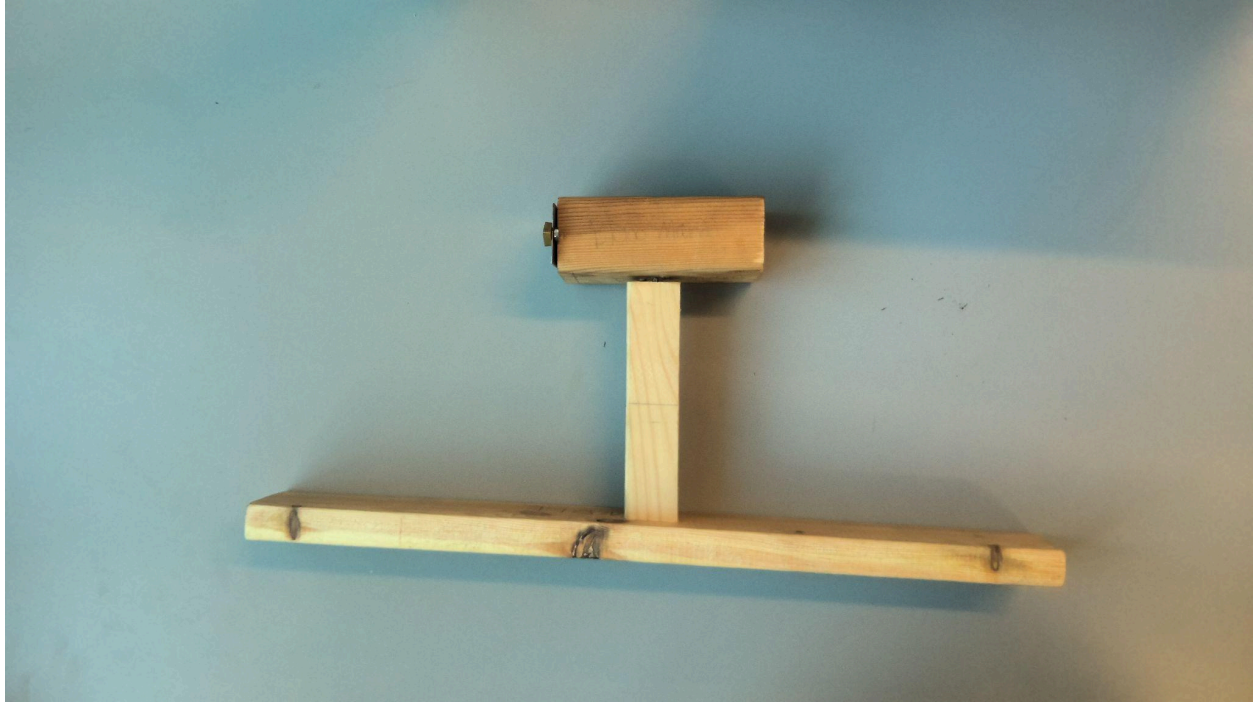






## Prototype 2







Attached Below Are Updated Prototype Plans 2&3 as Well as an  
Updated BOM

[illegible]

[illegible]





[illegible]



[illegible]