

## Element J - Documentation of External Evaluation

### 1. Problem Statement

Approximately 15 million students will be enrolled in high-school in the Fall of 2020, of which 45 percent will attend online, with an additional 48 percent not yet determined. Students across the nation need full access to experience both virtual and hands-on components of the PLTW Introduction to Engineering Design curriculum whether in a brick-and-mortar setting or via remote instruction. How can we provide a practical solution, for an individual kit, that would facilitate PLTW curriculum and not require families to shoulder an additional financial burden for the procurement of hands-on materials?

### 2. Introduction

The final design was previewed to a number of stakeholders. Parents, curriculum specialists, and administrators were given a tour of the portfolio and their reactions to the hands-on engineering kit for brick-and-mortar or virtual/hybrid instruction were recorded. Due to the compressed nature of this course and the virtual nature of designing the prototype, we were unable to gather additional consumer feedback through our surveys which are tailored to those who will receive the kits for instructional use or will be interacting with the kits as part of instruction.

### 3. [Stakeholder / Expert Survey Interviews & Portfolio/Design Review](#)

### 4. [Final Presentation Agenda](#)

### 5. [Final Presentation](#) @11:40AM - 7/23

### 6. Conclusion / Reflection

We presented our portfolio/website to an audience of prospective PLTW Engineering students, a parent, an IT Specialist, and a school principal. The feedback provided on our problem statement and design solution was overwhelmingly positive. We feel that we've provided enough details and information that a school administrator would be able to justify the purchase of the solution, the CDC would approve of our assembly and delivery process, the students would be more engaged with the course, and there would be no financial burden to families for access to curriculum materials. We would still like to survey teachers, students, and administrators in the fall once the kits have been rolled out for actual use.