Research/Patents Patent/Product Citations (in order) Much, J. (1978) Toy Construction Kit (U.S. Patent Application No. US4182072A). U.S. Patent and Trademark Office. Profilio, N., Starley, J., Egbert, J., Monson, R. (2023) Screenless Smart Learning Toy and System (U.S. Patent Application No. US12205485B2). U.S. Patent and Trademark Office. https://www.amazon.com/Mechanical-Technic-Building-Control-Educational/dp/B0FHQ3VPM6 (the product listing might've been taken down, please see the picture for proof it existed) Amazon.com: Lucky Doug Building Kit Model Car Set - STEM Project Building Toys for Kids Ages 8-12, Assembly Building Vehicle for 135+ EXPERIMENTS Boys 8 9 10 11 Years Old Amazon.com: Doctor Jupiter Girls' Science Kit for Kids Ages 8-10-12-14 | Birthday Gift Ideas for 8,9,10+ Year Old Girls | Chemistry Set, STEM Tov Kit with 135+ Experiments | Learning & Educational Projects Score Score Score Score Score Durability 3 2 3 3 Affordability 5 3 3 Complexity 3 Reusability / Maintainability 3 5 3 3 Performance / Effectiveness 3 3 3 Total 17 13 17 14 **Experts and Customers** Rip Van Winkle (wanted to remain Alex (no last name Susie Anthony gathered) Jamie Patel Ella Morgan anonymous) Score Score Score Ease of Use 3 2 Affordability 3 3 3 Aesthetic Appeal 2 3 Functionality 5 4 5 nterest Level / Engagement 5 1 5 5 5 17 Total 18 20 mmary Paragraph: Consumer evaluations provided a balanced perspective on the current design prospect. Overall feedback indicated strong performance in affordability and interest level, suggesting the product concept is both cost-effective and engaging to its target users. Minor concerns were noted regarding ease of use and aesthetic appeal, primarily based on one outlier response in which all criteria were rated low; this feedback highlights the need for clearer assembly guidance and more refined presentation. Design specifications derived from this feedback establish the following requirements: the final prototype must remain affordable, intuitive to use, and visually appealing while maintaining high functionality and engagement. Constraints include the available materials, limited development time, and affordability targets. These specifications are

specific, unambiguous, and have been shaped with direct input from the client and consumer participants.