

Honors Research Project Proposal

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Title of Proposed Project: Sand and Swim Leg	
Major: Biomedical Engineering	Graduation (semester/year): Spring 2022

Please include a brief (maximum 200 words) summary of your proposed project

Our project: Sand and Swim Leg, is addressing the clinical need of limited options for lower-limb amputees to participate in water activities. We will follow the FDA Medical Device Design Process throughout our two semester course. Initially, we created our team agreement and delegated team roles and responsibilities. Then, we conducted background research on the clinical need, competitive products, and existing patents. After compiling and discussing research amongst our team, we contacted stakeholders that would be affected by our product. Our stakeholders include our below-the-knee amputee client, an above-the-knee amputee, pediatric prosthetists, and our client's prosthetists. We conducted interviews with our stakeholders to gain perspective on issues, successes, experiences with current prosthetics. Some issues that are present for current solutions include, uncomfortable, lack of ability to enter and exit the water, and expensive. We will follow up the User Needs stage of the process with the Design Input, Design Process, and Design Output. Our end goal for this process is a way for below-the-knee amputees to participate in water activities that is more affordable, functional, and comfortable than current options.

Approval:

Honors Course No.: 4800-491 & 4800-492	No. of Project Credits: 4
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Your approved cover sheet and proposal must be submitted to the Williams Honors College through IdeaExchange