

ACADEMIC INSTITUTION	University of Alberta
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PROJECT NAME	Reworks
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NEED AND AUDIENCE

With the global climate crisis reaching an all-time high, our planet is predicted to perish by 2050 if we continue our current wasteful and mindless consumption trends. The fast fashion and textile industries contribute to 20% of the world's wastewater and deposition over 10 million tons of textile waste in landfills. Reworks wants to ensure responsible usage of natural resources provided by our planet by diverting this waste to our textile recycling process, transforming old, unwearable garments into sustainable new ones. Not only are we fighting to reduce the ever-growing wastage of water and textiles, but we are also striving to further educate our local communities on the prevalence and long-lasting repercussions of this issue. Through these efforts, not only is the current generation becoming more engaged and informed, but we are also inspiring the younger, future generation of activists. Our audience currently involves both the members of our university community and the greater Edmonton community via our partnerships with local non-profits. Our textile distributors and consultants also provide us with valuable information about the needs of our potential customer base.

ACTION TAKEN

Currently, we have joined the Innovation, Creativity, Entrepreneurship (ICE) Program, at the University of Alberta's Faculty of Engineering. ICE is responsible for assisting in the development of tech-based ventures by connecting project managers with reputable mentors experienced in relevant fields, giving us the resources needed for our student research team to work effectively. An example of ICE assisting us is the expertise provided for the initial development of a prototype that would offer higher-quality recycling methods. Specifically, ICE provides us with equipment to test our fabrics and prototype possible reconfigurations of old clothing for the recycling process. In addition, we also recently connected with Canadian Tire and their Environmental, Social, and Governance (ESG) Team. This invaluable connection has offered us professional mentorship towards developing and elaborating more on our own ESG goals within our business plan, as well as how to effectively move forward and follow up on our timeline. Another educational partner we have continued to work with over the last year is Canada World Youth, as one of four participants chosen to participate in their Innovation Program for Sustainable Livelihood and Entrepreneurship. Through this partnership, we are able to learn effective ways to research the technology needed for our project, make important industry connections, and learn the basics of running an effective business and research team. Overall, we have furthered our research and development with the technical support of our partners and the knowledge base of our connections, established our next phases for the project, and set our sights on long-term waste reduction goals.

IMPACT

Through ICE, members of the project could go through several lab training classes to set them up for success upon reducing COVID restrictions, including equipment and general orientation. Secondly, all members have had the opportunity to go through Reworks' introductory workshops, which educate members on sustainability practices and how to incorporate such practices into general day-to-day life. We have also held educational seminars for students and community members on climate change. We have directly impacted 43 individuals on sustainable practices, the mission of our projects, and daily, monthly, and yearly changes they can make to reduce their carbon footprint while simultaneously being mindful of the impact of the global scale of their actions. We have also accomplished this goal via our social media outreach, impacting over 2000 young potential change-makers.

STANDARD METRICS
 (These metrics are related only to the project presented and represent work done since March 1, 2021)

Individuals educated on climate action	2,043	Businesses educated on climate action	3
Litres of water conserved	2,043,900	Metric tonnes of waste diverted	0.90718
GHG emissions diverted	702kg CO ₂	Dollar value of waste diverted in CAD \$	\$938

PROJECT START DATE	March 2020
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IS THIS PROJECT WHOLLY-OWNED AND OPERATED BY THE TEAM?	Yes
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