What engineering problem, great or small, would you like to solve, and why?

Every couple of years my family embarks on the 8,122-mile voyage to Bangalore, India to visit our family. The familiarity of India’s humid air and the laughter of children playing in the streets fills me with a sense of love and belonging. Those memories are stained, however, with moments of stepping around the litter piled high on the streets and the smell of garbage following you as you walk. The increase in undisposed trash is directly related to the depletion of clean water and air and a subsequent incline in disease as well. It pains me to see people continue to litter their beloved streets, unconcerned by the damage they are causing.

I’ve learned a very important lesson from the experience: if I want to see a change, I have to be the spark that elicits it. The opportunity to apply classroom instruction to solve relevant, real-world problems is what excites about engineering. Working hard to create something that will change people's lives and the way we see technology is an unfathomable, exhilarating feeling. For this reason, I aspire to build trash collecting robots that can collect and transport trash to newly constructed landfills or recycling centers, while also being able to withstand the rugged terrain of India’s streets and its infamous tsunami-type rainstorms.

These robots will revolutionize the future, solving problems of disease and famine. The development of such technology will empower others to join the cause, whether it be through funding or manpower, creating a more sanitary and safe milieu. By cleaning litter, the mortality and pollution rates will subsequently decrease, ultimately limiting global warming.

Most of the life-changing projects we hear about today in technology/engineering are rarely created by one person alone. I’ll be surrounded by people pushing me to set the bar higher for myself, allowing me to grow and learn from my fellow peers instead of competing against them. For this reason, my next step would be to create a team of diverse individual and creative thinkers who will challenge my take on a solution, showing me simpler, more innovative solutions to a problem. Each of us come from different backgrounds, and working together will exemplify the power of communication and the tenacity required for success. It elicits a truly brilliant amalgamation of unique and innovative perspectives vital in creating the technology of the future.

Additionally, engineering elicits creativity, resulting in a curious marriage of diverse ideas that make engineering possible. Pursuing engineering makes it possible for me to be a leader in meditating the meaning and purpose of education and I plan on shaping that conversation through my love of learning and my experiences as a woman in STEM. Completing this project will encourage other women to grow in self-esteem and intellect, through their engendering love for STEM. They are the catalysts for an ultimately significant, positive change in their communities.

The engineering field runs the gamut from an academically driven subculture centered on serious intellectual debates to an explorative, supportive one. Through engineering, I will find like-minded peers whom I relate to and learn from. By completing this project, I will be able to expand my knowledge and develop leadership skills that I will carry for the rest of my life.

Society is reliant on technology and being a part of this ever-growing industry will pave the way for what is yet to come. I want to prove that women can make a change and encourage other girls to take a stand as well. I’m not just another statistic of women in STEM, I’m strong and resourceful, hardworking and motivated. The next time I walk on India’s sidewalks, I’ll no longer see people coughing from the polluted air, but instead taking in deep, clean breaths. I’m an intelligent leader who’ll reinvent society one wrapper at a time. This project is very meaningful to me and has the power to make the world a better place both globally but also for local Indian residents. I’m an intelligent leader who’ll reinvent society one wrapper at a time. After all, it is those whom no one imagines anything of who do the things that no one can imagine.