

English 21007

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At the start of this group project, I did not think it was going to be anything special. It just seemed like another assignment where we had to come up with an idea and present it, but once we started working more seriously and connecting it to real problems in NYC, my perspective began to change. I started to see how this project was about solving real issues like trash everywhere causing unpleasant smells and ruining the city experience. It felt more like thinking like an engineer rather than just completing a task for a grade.

One of the main things I got out of this project was learning how to take a simple idea and build it into a detailed plan. Our goal was to create a smart system for existing trash cans that detect when they are full to help sanitation workers. While it sounded basic at first, I realized how much thinking goes into the technical description. We had to consider how ultrasonic sensors, and solar chargers would all work together in a weatherproof casing. This showed me that innovation is not just about the initial idea, but about how those parts function together.

This project also changed the way I think about innovation because I used to think it meant creating something completely new. Now I understand that it can also mean improving something that already exists. Instead of replacing every bin in the city, which past attempts like Bigbelly struggled with due to high costs and resources, our idea focuses on retrofitting existing cans. This makes the process cheaper and easier to use on a large scale. I realized that good innovation does not always have to be complicated as long as it solves a problem in a better way.

Another thing I learned is how innovation connects to real life by addressing issues like trash overflow and city cleanliness. Thinking about these problems in NYC made the project feel more meaningful and showed me that engineering can make a difference in everyday life.

Working with my group was also an important part of this project, even though it was difficult at first to organize everyone's different ideas and ways of working. Over time, we got better at communicating and dividing the work, which helped us finish more smoothly. I learned that teamwork makes an idea stronger because everyone brings different strengths, such as technical research or design. Near the end, I did get worried when designing the sketch of our innovation because it was harder than expected to visualize where the sensors and housing would go on a real bin. However, going outside to look at actual trash cans helped us get a better idea of the size and shape we were working with. This made our design more realistic because it was based on something real. Even when group work was frustrating or felt slow, I learned to be more patient and that these challenges are just a necessary part of the process. Overall, this project helped me understand that innovation is about solving problems in a smart, practical way through collaboration.