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2018 REC Foundation Recycling Online Challenge

With the task of incorporating standard Vex Robotics Competition (VRC) pieces, I started the brainstorming process and was immediately intrigued by the VEX VRC Skyrise posts. The way they interlocked gave way for many ideas I had concerning how they could be implemented into an object that would be practical for daily use. By tossing around ideas, I first though of using these posts to serve as a support beam for some sort of structure. I had thought about a chair, but I decided this would not be practical and would probably not work out due to the relative flimsiness of the cones, so this idea was thrown out. I then thought of supporting a table with these posts, and considering tables typically don’t take much weight, I decided this was the idea to pursue.

I was now in search for a piece to serve as a tabletop for my table. I encountered the base of the posts used in the VEX challenge, which is anchored into the field. I determined that I could use this base as both a base for my table and as a tabletop, so I proceeded to stack the posts on the base and stacked upwards until I encountered the issue of how the tabletop piece would be attached to the table. I realized that if I just took the top section of the plastic post that stuck into the column off, I could fit the post piece attached to the tabletop right into the small detached post section. This fit perfectly, and the posts were surprisingly stable. Due to the lack of a larger flat surface, I used these VEX post bases, which ended up stabilizing the table, making it about the size of a coffee table. The table can support a considerable amount of weight, and it was a very simple and straightforward design.

I played around with possible extended support and even decorations. I first considered using the cubes used in the VEX skyrise challenge for further support for the table, but I realized this was not practical since the stacked cube heights didn’t fit practically within the height of the table. Deciding the structure of the table was already suitable for its purpose and design, I decided to make the use of the ring pieces from the VEX IQ Rings-N-Things challenge as a decoration. The rings from this challenge perfectly fit onto the posts from the Skyrise challenge, so I decided this would make a good decoration for the table.

The transformation of standard VEX competition pieces turned out to work out very well, and I’m happy with the outcome of my table. Its simplicity and stability make it practical for home, school, or work use. This challenge expanded my mind to consider the recycling of unused parts and pieces into something usable on a daily basis. I enjoyed this challenge, and I am happy with the outcome of the design.