

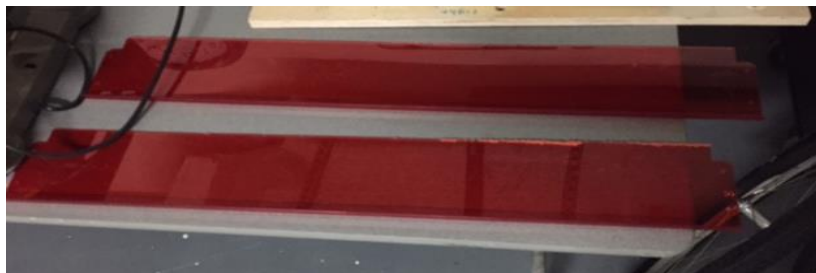
212E Recycling Challenge Bookshelf

Bookshelves are a necessary component of any classroom. They can hold books, classroom supplies, and much more. Our team decided to make a bookshelf with the supports made of Skyrise posts and clamps, the smaller diameter PVC components made of Toss Up barriers, and the shelves made of repurposed Sack Attack goals.



This was our preliminary layout idea. We were going to use the tubes (the plastic donuts) from Round Up to attach the shelves to the side vertical supports, but they were unstable. We also ended up using only one vertical beam per side and using the other two on the ground as base supports.

The angle in the Plexiglas goal was also unideal so I cut them down the center to make the two flat halves shown below.





Then I attached the clamps from the Skyrise posts to the short smaller diameter PVC of the Toss Up barrier pipes using screws.

Next I put two of the Skyrise posts on the ground as base supports. I attached the 2 halves of the first shelf to them. Then I attached the clamp system from the previous picture to the shelves using more screws.



(bottom view)

I made the remaining three shelves the same way except for the base supports. Then I slid the clamps onto the vertical sides and secured them. I also added a cross brace in the back for extra stability and rigidity.



Finished Product

Pictures



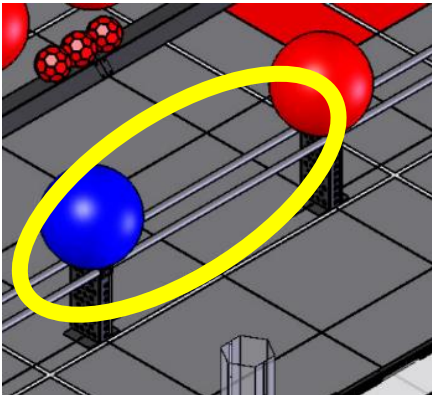
Holds my entire collection of books with extra room!

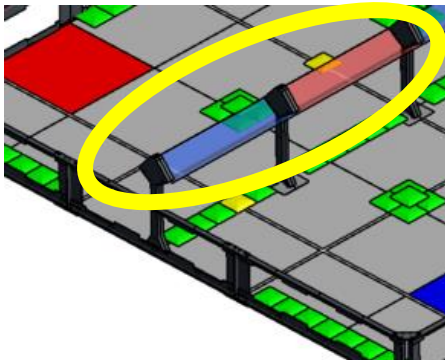


Can be used to store a variety of objects

Materials

-  Skyrise posts and clamps for the vertical sides and the base supports

-  Toss Up barriers for cross brace and pieces attaching shelves to clamps

-  Sack Attack goals

- Screws for attachment