SolidWorks Final Design Project

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Featuring: The Modular Greenhouse

This is an origionally designed greenhouse concept created by the PMM group in Engineering Design 100 at Penn State University. It features an aluminium base to hold dirt and plants, a plexiglass body to protect the plants, and a hinged plexiglass lid with holed to allow rainwater to enter the greenhouse. Building this in SolidWorks was challenging because it required the creation of multiple parts made out of different materials, the heavy use of reference geometry, and designing hinges that could be concentrically mated to make a movable lid. This project relates to my major because the greenhouse incorporates design ideas with sustainability. Doing this project taught me about how to use fillets, how to make moving parts, and how to make parts made of different materials. The most enjoyable part was moving the lid after the part was completely finished.
Lid Opened

Holes allow rainwater to enter

Hose input hole

Base sloped downward to distribute water