**Cal Poly Pomona Electrical & Computer Eng.**

**ECE 4810 Project Design Principles and Applications**

**Assignment 2 – What is design?**

# Brainstorm 5 design improvements to the robot shown in class

[Robot Room service At The Axiom Hotel In San Francisco (4 minute video)](https://tracking.tldrnewsletter.com/CL0/https:%2F%2Fwww.youtube.com%2Fwatch%3Fv=oiOfkIm_Npc%26feature=youtu.be/1/0100016d00e692d1-db1dba5e-057a-4720-8e3a-d956a164f459-000000/ormi2jp0K2YVW6H0VuVo0lADRW8tbtGz370mLSaQDZ4=105)

You can form teams of no more than four students

Write a sentence or paragraph for each improvement

Write a paragraph describing your brainstorm process

<https://www.ted.com/talks/ken_robinson_says_schools_kill_creativity>

It seems to have trouble entering the elevator. There can be more sensors in the robot and markers in the environment (QR code etc.) that the robot can sense to guide it.

It is not stable when entering or leaving elevator. There can be some stabilizing mechanism such that it can carry things that are not fragile or can spill.

Storage space can be compartmentalized to carry for more than one recipient.

There can be a vending machine like functionality for frequently requested items to reduce time needed for staff to load the robot.

The robot does not seems too responsive/fast, may help to include buttons and indicator lights for faster interactions.

I asked my roommate to watch the video and brainstorm with me. We start by watching the videos a few times and jogging down observations of some things that is not ideals, like it taking a spin before entering the elevator, every order require a round trip which is not quite efficient etc. We then discussed with each other ways that can improve on those observation, like the compartmentalized storage space and vending machine idea for the efficiency problem.