Introduction
Alcohol is a highly valued commodity, but the necessary care and precision that cocktails require deter many from making them. Bartenders get the job done, but they are extremely costly. We designed Barmaid, an automatic cocktail maker, as our solution to this problem. It’s practical, visually attractive, and inexpensive—perfect for home use or party-type situations.

Project Specifications
• Consistently prepare mixtures of drinks
• Accurately pour the right amount of liquid
• Easy to navigate the user interface
• Visually appealing

Background
Conveyor Belt
Weight Scale
The platform is driven by a stepper motor that tracks along a rubber belt on one side and rolls on a set of ball bearings on the other. End-stop is installed in one end to identify the origin, indicated with LEDs.

Subsystem
User Interface (UI) Box
Enables the interaction between Barmaid and users via an 12C LCD Screen.
Push buttons:
White = Up, Yellow = Down,
Red = Select, Black = Cancel

Weight Scale
Weight scale employs a load cell to measure the weight of the liquid. It cooperates with the dispensing system to control the volume of liquid entering the cup.

Subsystems
User Interface (UI) Box

Dispensing
Solenoid valves are used to control the flow of each individual bottle. To ensure the bottles remain pressurized and that flow is continuous, a second air intake tube is added to each bottle.

Conveyor Belt
The platform is driven by a stepper motor that tracks along a rubber belt on one side and rolls on a set of ball bearings on the other. End-stop is installed in one end to identify the origin, indicated with LEDs.

Code Flowchart
https://github.com/kennywakaba/IGEN-230-Barmaid