Team 16 - Kombrucha

Team Members (Left to Right)

Michael Lanning (ME), Ben Nymeyer (ME), David Harris (ME), Zach Swart (ME), Carter Vande Vegte (EE)

Calvin UNIVERSITY 1876

Problem:

Brewing kombucha at home can be very difficult due to its many complexities, and buying kombucha is very expensive. When home brewing kombucha, it is often inconsistent in flavor and carbonation, requires frequent monitoring, and requires long fermentation periods. Lastly, the environmental impact of single use kombucha bottles is a substantial downside of storebought kombucha.

Goal:

To simplify the home kombucha brewing process, improving convenience. This entails the creation of a compact countertop machine fitting under normal cupboards. For precise control, it will be equipped with sensors to monitor temperature and fermentation progress, and heat to speed up fermentation. Users will input desired flavor characteristics, and the machine will do the rest, modifying the recipe and fermentation profile, all while ensuring carbonation during the second fermentation stage.