



## TEAM 12 - UBRU

Zack Woo, Vinay Khemlani, Veronica Herzog, Ricky He, Alex Moyse

Client: Sebastijan Mrak, Boston University

Brurista is a redesigned espresso machine for the modern era. Currently, there are a wide variety of espresso machines, where each new iteration has its own new gadget, gizmo or gimmick. For the most part, these gimmicks are all but useless, an attempt to differentiate one machine in a sea of similar machines. However, Brurista is different. Brurista provides not only a networked backend so that every user is able to customize their own beverage and save those settings, but also to receive a similar tasting shot of espresso, regardless of the time of day or location.

To begin, the client provided the team with a Saeco super-automatic espresso machine. The team is responsible for the changes necessary to create a fully automatic espresso machine—from a new, networked control layer, a cloud backend, precise temperature and pressure control, as well as touchscreen and a user interface. The installation of a Raspberry Pi 3 with an Arduino enabled the team to drastically expand the functionality of the Saeco machine.

Upon completion, the client will receive a fully automatic espresso machine that is capable of creating user portfolios, accessing these portfolios at multiple physical machines, and caching them locally. This espresso machine will require zero user input beyond selecting their portfolio, providing the consumables and maintenance. Simply put, Brurista simplifies the espresso making process into a turnkey solution; select one's desired customized drink, make any modifications, and press start to begin the brewing process. In conclusion Brurista provides a way for users to experience their espresso just like they experience their lives; networked.