Overview
Fontaine is an automated sprinkler controller that adapts water usage based on weather conditions and local sensor data. It removes unnecessary watering and conserves water in a cost-effective and user-friendly package.

Problem
Several factors contribute to high and inefficient usage of water for irrigation purposes. These include evaporation, runoff, watering during the rain, and excess watering. Measures to mitigate these factors and alleviate high water usage in residential irrigation systems have been taken, but these systems fail to resolve the issues entirely. This project implements new techniques to solve these issues in an intuitive and user-friendly manner.

System Diagram

Fontaine
Adaptive Sprinkler Controller

Jason Christensen
- Software Development
- Hardware Integration
- UI/UX Design
- Graphic Design

Trevor Christensen
- Solid Modeling
- Enclosure Design
- 3D Printing

Local Monitoring
On-site sensors provide the most accurate measurements to reduce the amount of water used.

Forecast Data
Local forecast data is used to prevent unnecessary watering before, during, or after the rain.

Intuitive Design
An intuitive user interface allows users to monitor and manage their system from a mobile device.

Results
Fontaine accurately measures soil conditions and properly manages water usage. In testing, an average of 60% of typical water usage was saved. This amounts to 24K gallons of water each month and $230 saved annually.