IoT fermentation temperature control for a microbrewery

We at Kasper Brew Co. bought our brewery at the start of January 2020 and it's been a turbulent start, to say the least. The brewery runs at the moment with 7 x 650-liter fermenters and a single 1000-liter tank but we are running out of capacity so more fermenters are to come.

The temperature of the fermentation directly correlates with the final taste of the beers and in order to create a more consistent turnout, it is critical to be able to control the temperature.

The brewery is located in Stevns, South Zealand, and since we're not able to be at the brewery every day we would like to get a temperature control and temperature surveillance system that we can connect to anywhere we are.

The fermenters are cooled by a cooling jacket filled with water which is then cooled in a cooling system. The water is connected with a parallel connection.

We think the system needs to be:
- Scaleable
- Have an online control and surveillance function
- Intuitive to use
- Be based on of the shelf parts (Such as Raspberry Pi, Tilt, etc.)
- Be cost-friendly since we are a startup
- Be replicable