

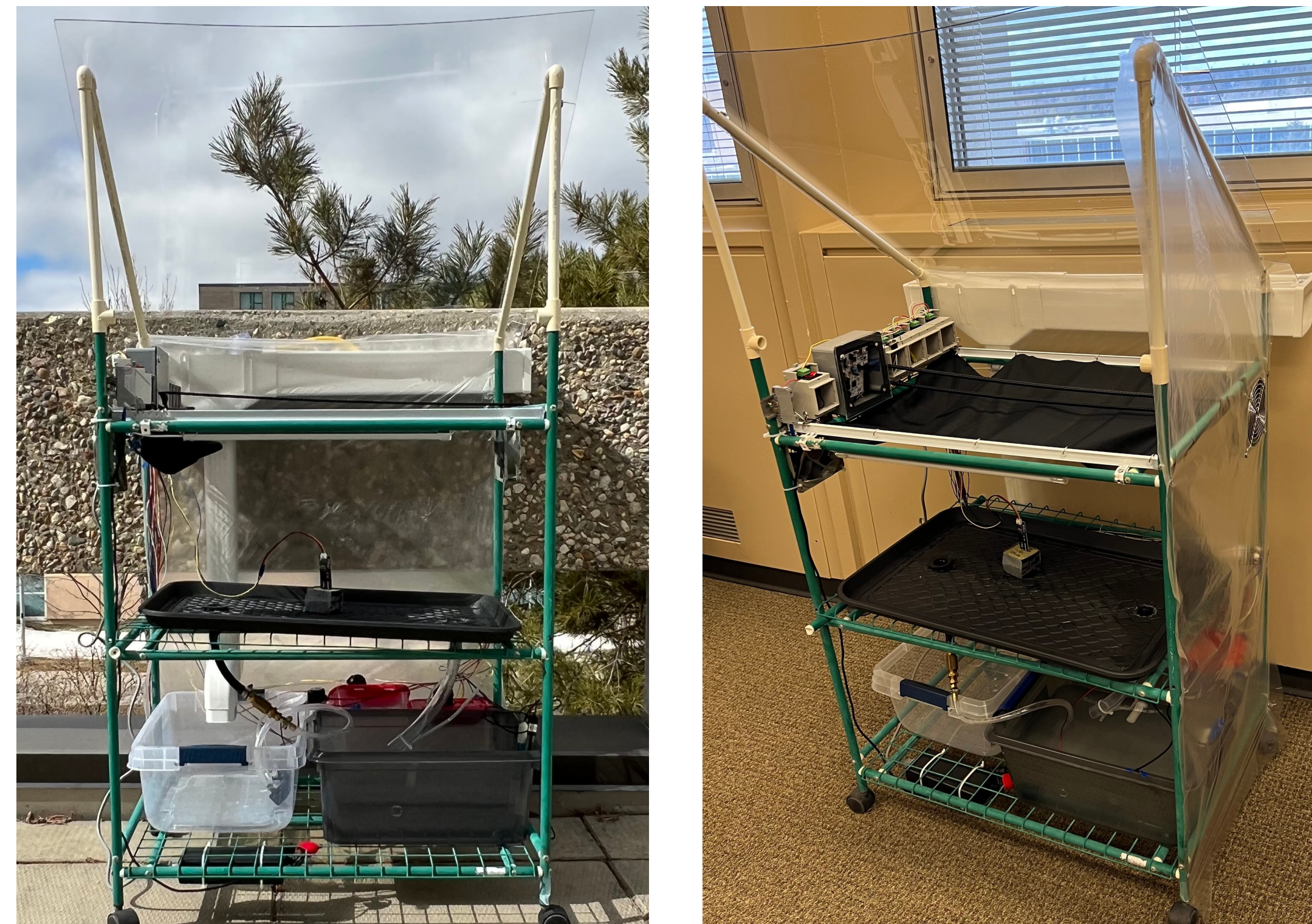
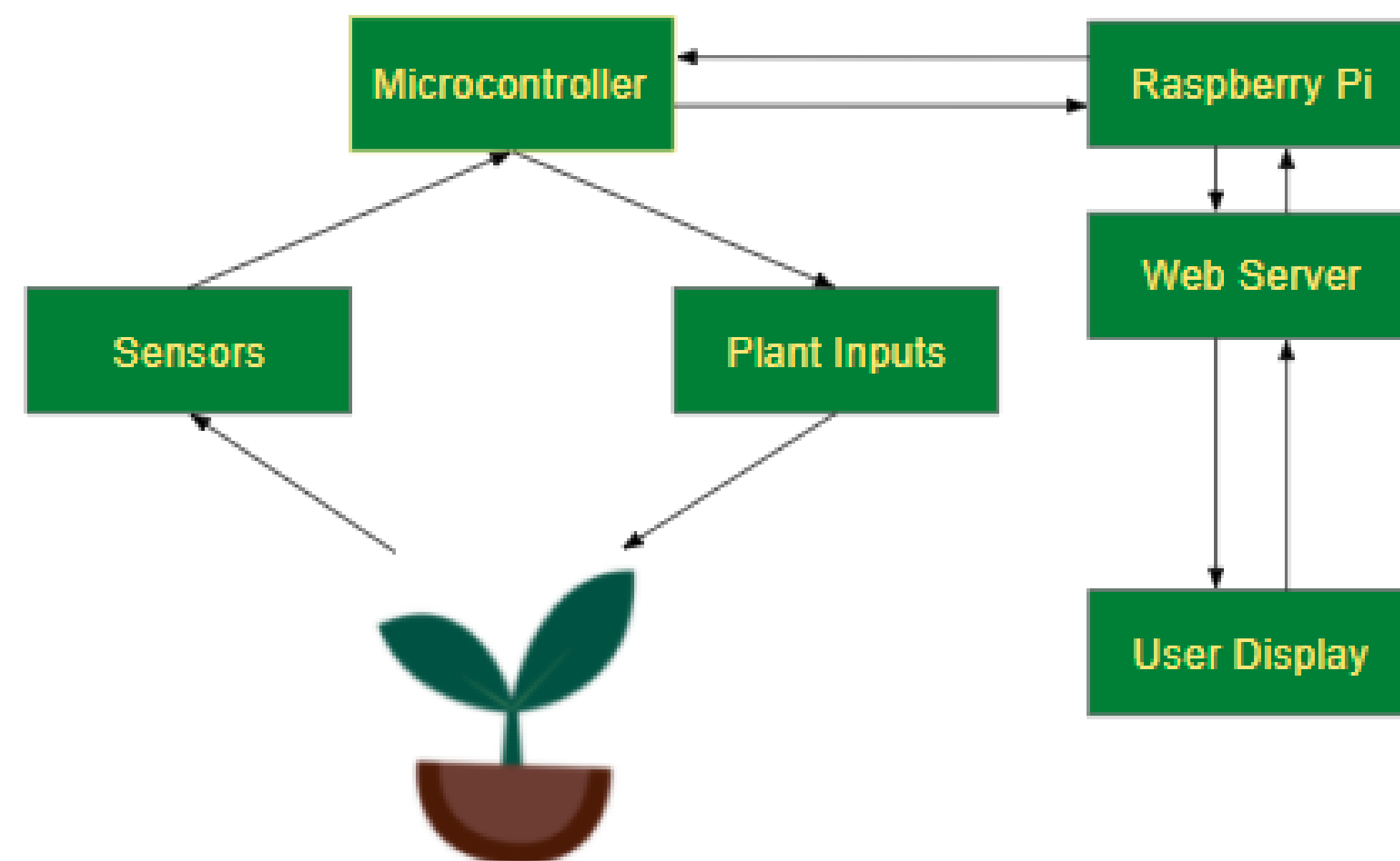
Automated Greenhouse System

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Objective

- Short gardening season in Canada
- Late thaw in spring, Early frost in Autumn
- An Automated Greenhouse provides flexible gardening without the stress of winter weather.



Power & Safety

- 12V Wall Adapter
- Fuse Protection
- Emergency power switch
- Voltage Regulation for 5V & 3.3V components

Water & Chemical

- Collect Rainwater
- Water Pumps between Tanks
- Auto Adjusting pH levels.
- Manual Fertilizer Addition

Sensors

- Moisture
- pH, EC
- Temperature/ Humidity
- Light

Plant Inputs

- Water Pumps
- pH Dosers
- Ventilation Fans/ Shaders
- Grow Lights

Web Application

- User display for data aggregation and analysis.
- Cloud stored database using Amazon AWS.

Sunlight & Temperature

- Fan ventilation for climate control.
- Shade Curtains for temperature control.

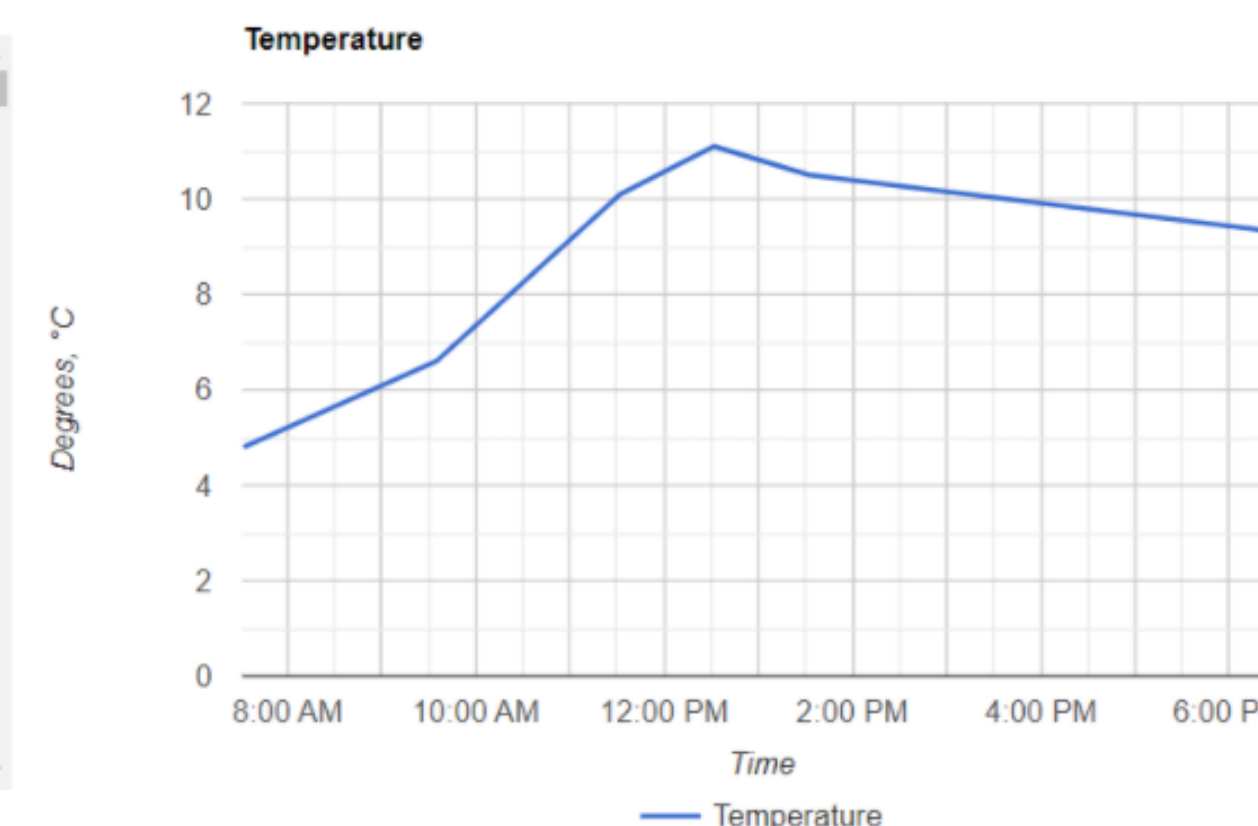
You are planting tomatoes outdoors.

Choose your date range.

From Date To Date RANGE

Temperature

Date	°C
2022-03-14 21:31	25.3
2022-03-14 21:31	23.5
2022-03-14 21:31	22.5
2022-03-14 21:32	20.1
2022-03-14 21:32	19.6
2022-03-14 21:32	15.8



Acknowledgments

- Dutch Growers Home & Garden
- Sherwood Greenhouse & Gardencentre Ltd.
- Whole Leaf Healing Tree
- Doug Wagner, P. Eng



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