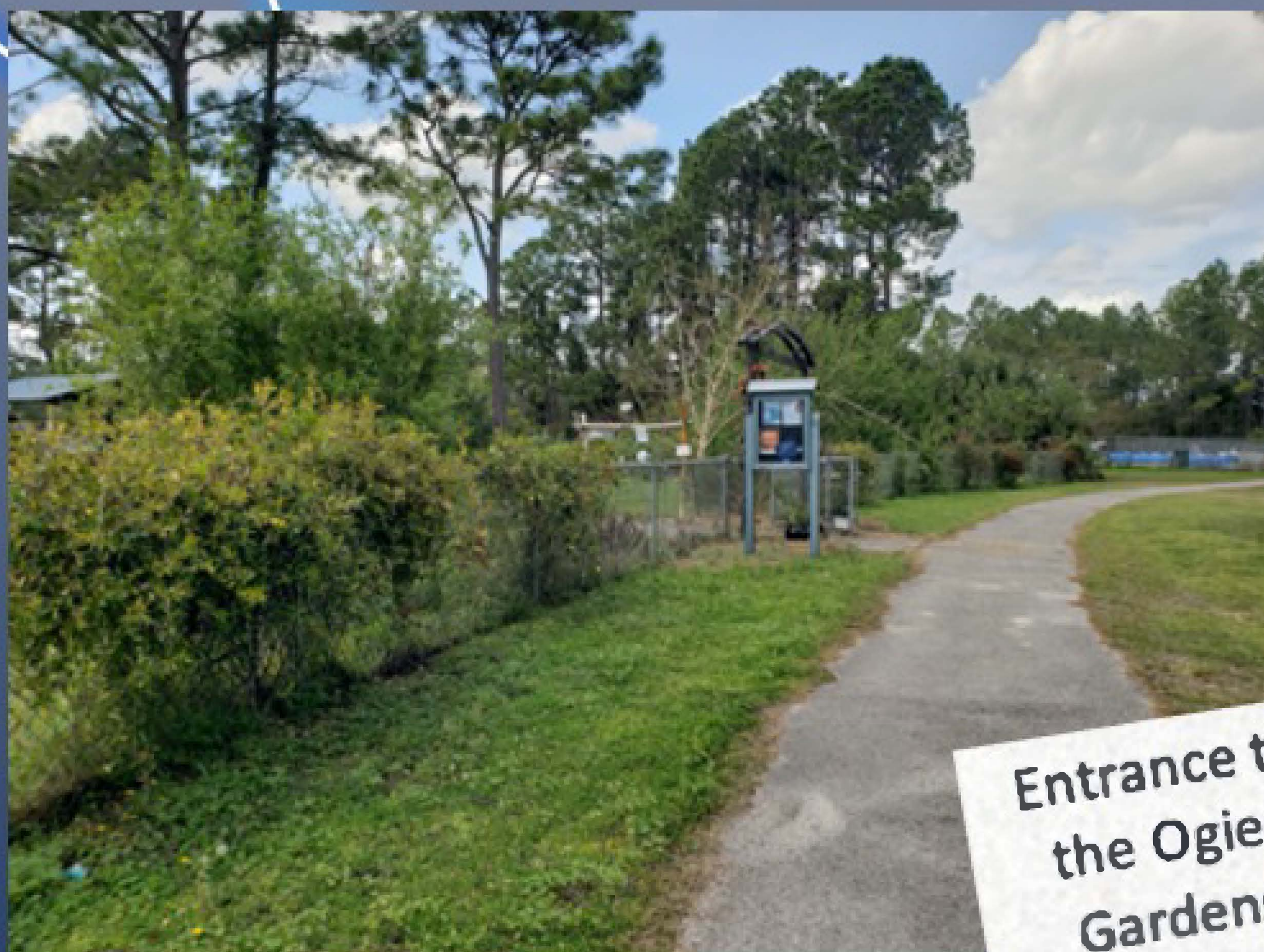


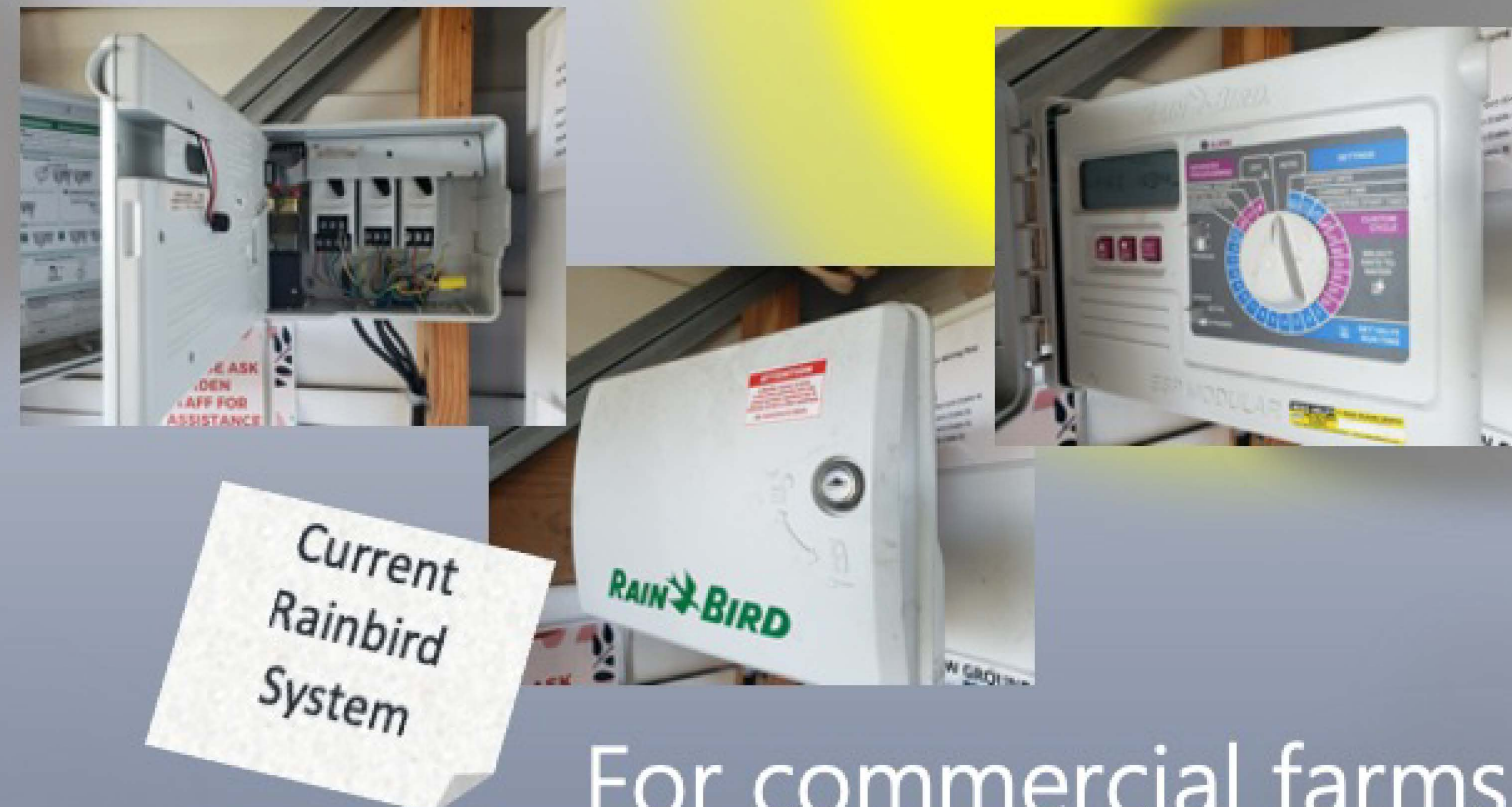
Sustainable Irrigation at the Ogier Gardens

Project Origins

- The UNF Ogier Gardens exists to create a healthier UNF community through nature contact while growing crops and social connections, demonstrating sustainability and biodiversity, as well as nourishing people with local, fresh, and delicious food [1].
- The Ogier Gardens first became involved with automatic irrigation through a student-led project from the Institute of Electrical and Electronics Engineers (IEEE) at UNF.
- This project (nicknamed "Garduino") focuses on automated farming, and the project with the Environmental Center continues the improvement of a small farm's efficiency through water conservation.



Entrance to the Ogier Gardens



Current Rainbird System

For commercial farms...

"Utilizing soil moisture sensors, computerized hole selection, and surge irrigation increased irrigation water use efficiency by 51.3%" [2]

Project Outline

- Irrigation controllers provide a convenient method of watering for homeowners and farmers alike.
- A fully automatic sprinkler system means the user can establish various settings related to the garden and let the controller take care of the yard without supervision [4].

Why is this useful to the Ogier Gardens?

- Watering crops typically falls solely on the farmer, but proper watering is sometimes based on intuition and the working memory of the responsible party.
- Since UNF will be installing high-speed internet at the Ogier Gardens this year, the irrigation controller should be replaced by one with Wifi capabilities.
- The new controller will be more efficient and hassle-free for those who have access to controlling the garden's irrigation system.

Project Outcomes

- Collaborated with... 5 students and faculty
- Offered... 3 products necessary to conserve water
- Discovered... 2 maps necessary for organization
- Developed... 1 proposal for funding

Gaps in Literature

- There is little to no information for small farmers and gardeners related to irrigation.
- This makes the search for the right sprinkler system a hassle for smaller gardens.
- Through extensive research of available resources, the Ogier Gardens can now make an informed decision related to their sprinkler system and purchase their own fully automatic sprinkler system by the end of the year.

Shopping List

Rain-Bird ESP-ME Upgrade Panel With LNK WIFI Module Included



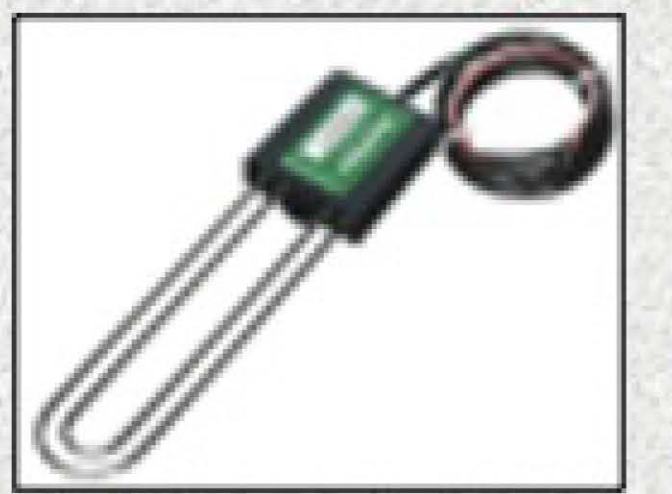
\$144.90

Rain Bird - Wireless Rain/Freeze Sensor & Timer Interface



\$209.95

Rain Bird SMRT-Y Soil Moisture Sensor Kit



\$68.98

Links to all references for this project are located at the QR code specified to the right of this text

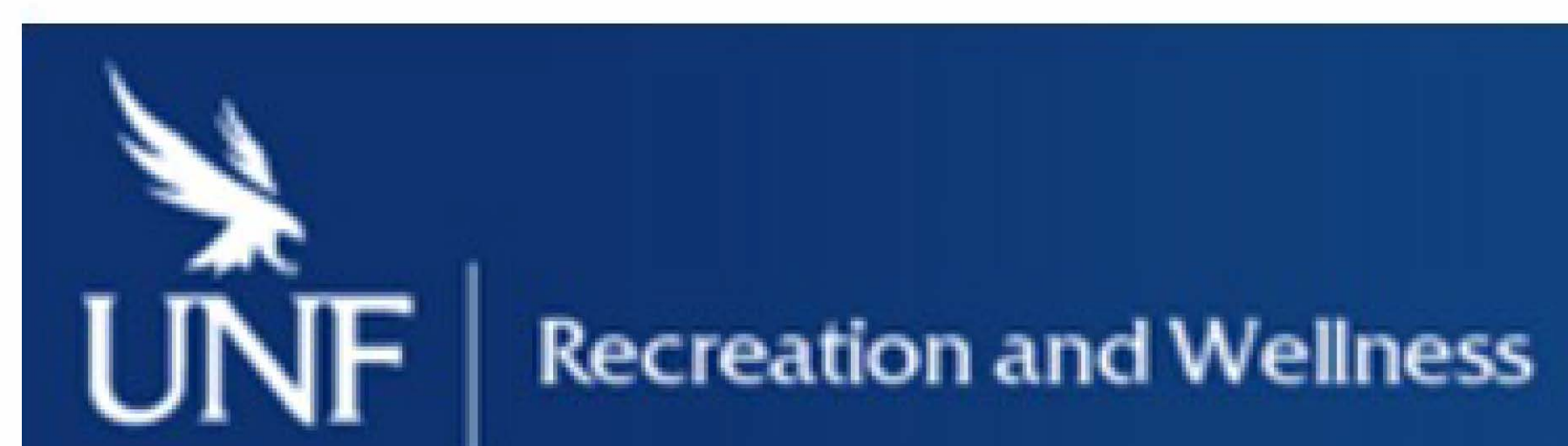
References



SCAN ME



Environmental Center



Garduino



UNF UNIVERSITY of NORTH FLORIDA

Project Leader

Maria Pugliese

N01415499@unf.edu

www.unf.edu/ecenter

Community Partner

Kevin Anderson

k.Anderson@unf.edu

https://www.unf.edu/recwell/garden/

