

SMART FARM for Malawian Farmers

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Background and Purpose

Different crops require different environmental or weather conditions to grow properly. Based on research, farmers in Malawi Grow crops randomly without considering what's best for their crops. Our team is trying to help out farmers in Malawi who have trouble to choose a crop to grow in a particular season. After discussing, we thought of making a system that will recommend farmers what to grow based on soil moisture content (humidity) and temperature of the environment.

Methods

Target

- Farmers in Malawi

Approach

- Online Survey



Product | Final Output

Arduino Sensors are put into the soil on the target land.

- Read Temperature and Humidity for 2 – 3 weeks and calculate average for each day.
- Display a crop recommendation to Farmer Via email.



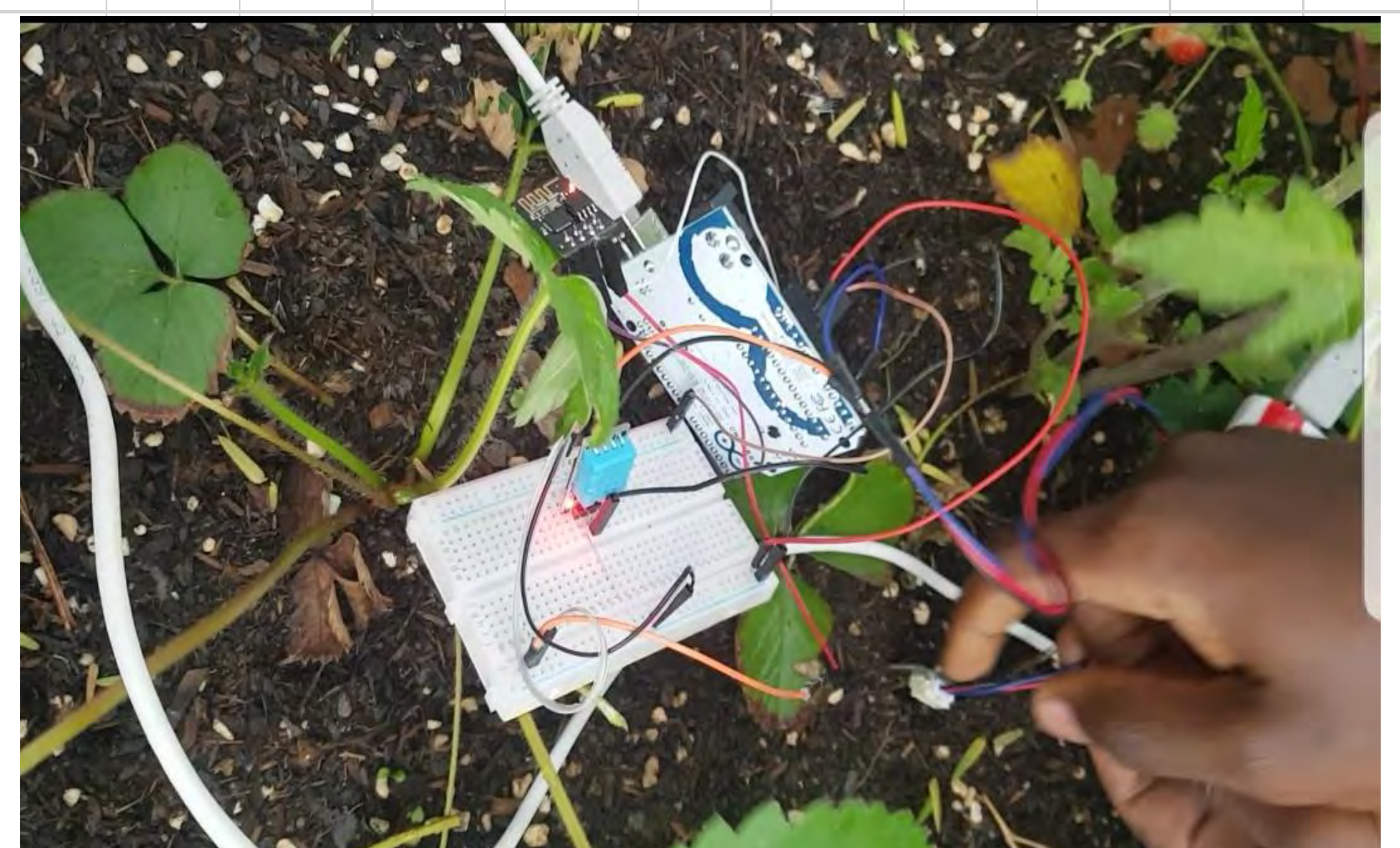
Check the plant recommendation Document and compare with data collected from your farm!

Visit: <http://bit.ly/2JnbQU4>
<http://bit.ly/2JJwnle>
<http://bit.ly/2Jq4BuC>
<http://bit.ly/2JLGINw>

Recommendation document:
<http://bit.ly/2Jpk5ig>

Please Note that the System Data readings might be different from the weather forecast!

When: May 18, 2019 at 06:00AM



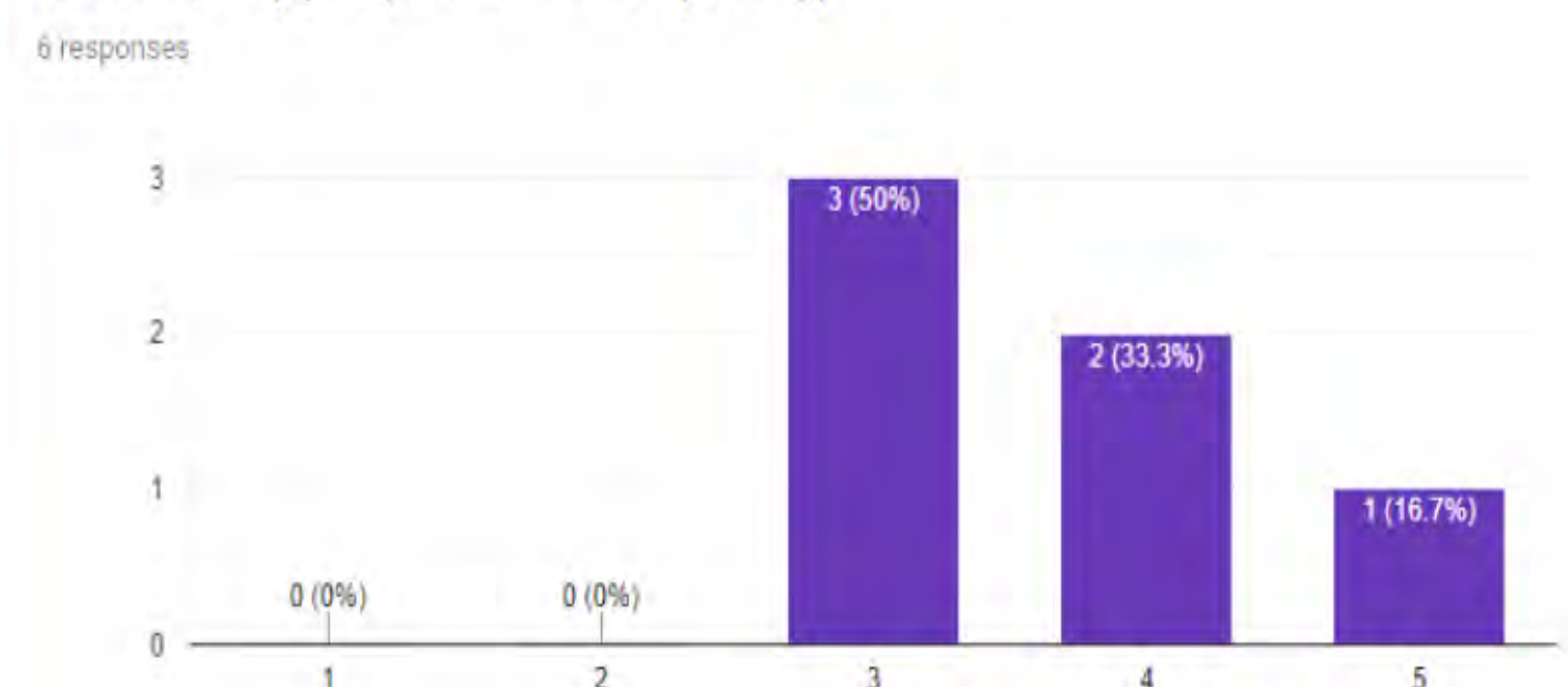
User Feedback

Questions

1. Gender
2. Did you understand how the prototype works?
3. Do you think you can find any problems while using the prototype?
4. Did you like the prototype?
5. Out of 5, may you please rate the prototype?
6. where do you think we should improve?

Results

Out of 5, may you please rate the prototype?

[illegible]

Limitations(L) and Conclusion(C) | Future plans(F)

L:Setting up the system can be complicated for users in the first place. Malawi has network problems that is also another limitation we have in hand, and also currently our system can be affected by rains if left open.

B:From the whole project we can say we have achieved solving one of the major problems Malawi faces as a country. This humanitarian technology which Arduino based system will change farmers lives at a huge impact

F: In the future we firstly want to make a full autonomous recommendation functionality. Besides that we want our system to be a full smart farm system because now we focused on the recommendation part only, we want the system to be used before planting and throughout the growing until harvesting.