

Open Horizon project SmartAg SIG

August 10, 2021



Meeting details

Topic: Open Horizon SmartAg SIG Meeting

Time: August 10, 2021 1:00 PM Eastern Time (US and Canada)

Every week on Tue

Please download and import the following iCalendar (.ics) files to your calendar system.

Weekly: <https://zoom.us/meeting/tJlId-mrrzItGtZJmCISkSDBOy6Ob4UddbIG/ics?icsToken=98tyKuCupjsqGdWctxmFRoWAGoigc-nzmFhajbdnthLGDxNYUSfUGfsUHbArJdzU>

Join Zoom Meeting

<https://zoom.us/j/96800319702?pwd=TmdxMXBuVFFWM0RCeklnenhkekY2UT09>

Meeting ID: 968 0031 9702

Passcode: 411386

Find your local number: <https://zoom.us/u/ab3U5VODJI>

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Topics

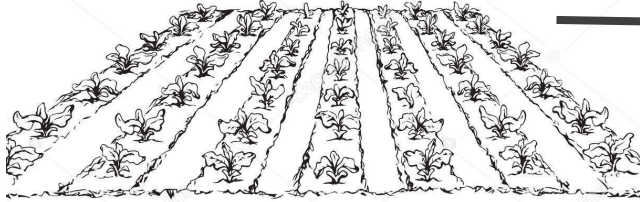
1. Welcome Seeed! Technical/Hardware Discussion
2. Timeline/Start window
3. Open discussion

Technical/Hardware Discussion

Milestone	Key Activities	Milestone Deliverable
<p>Milestone One: Discovery [4 Weeks] Points 2 & 3 - ASAP Points 4 & 5 - within two weeks Sensors in 3-4 weeks</p>	<ol style="list-style-type: none">1. Setting up local environment ? Virtual device for simulation ? SS & Fledge2. Set up repo & begin commits3. When to begin germinating peppers?4. Standing up Open Horizon Mgmt. Hub Teleport as bastion host? Joe5. Hoop House: RPi4 w/Agent & enclosure6. Fledge (update configuration?)7. 4 quadrants – wired ModBus sensors8. Set up thresholds and notifications9. Watering actuators out of scope10. Data: soil moisture, soil temp, elec conduct. (salinity)	<p>Hardware purchase (BOM) – keep track on wiki</p>

Open Discussion

Use Case



- Soil Temperature
- Soil Moisture
- Air Temperature
- Humidity
- Photoperiod
- Pest Monitoring
- Wind

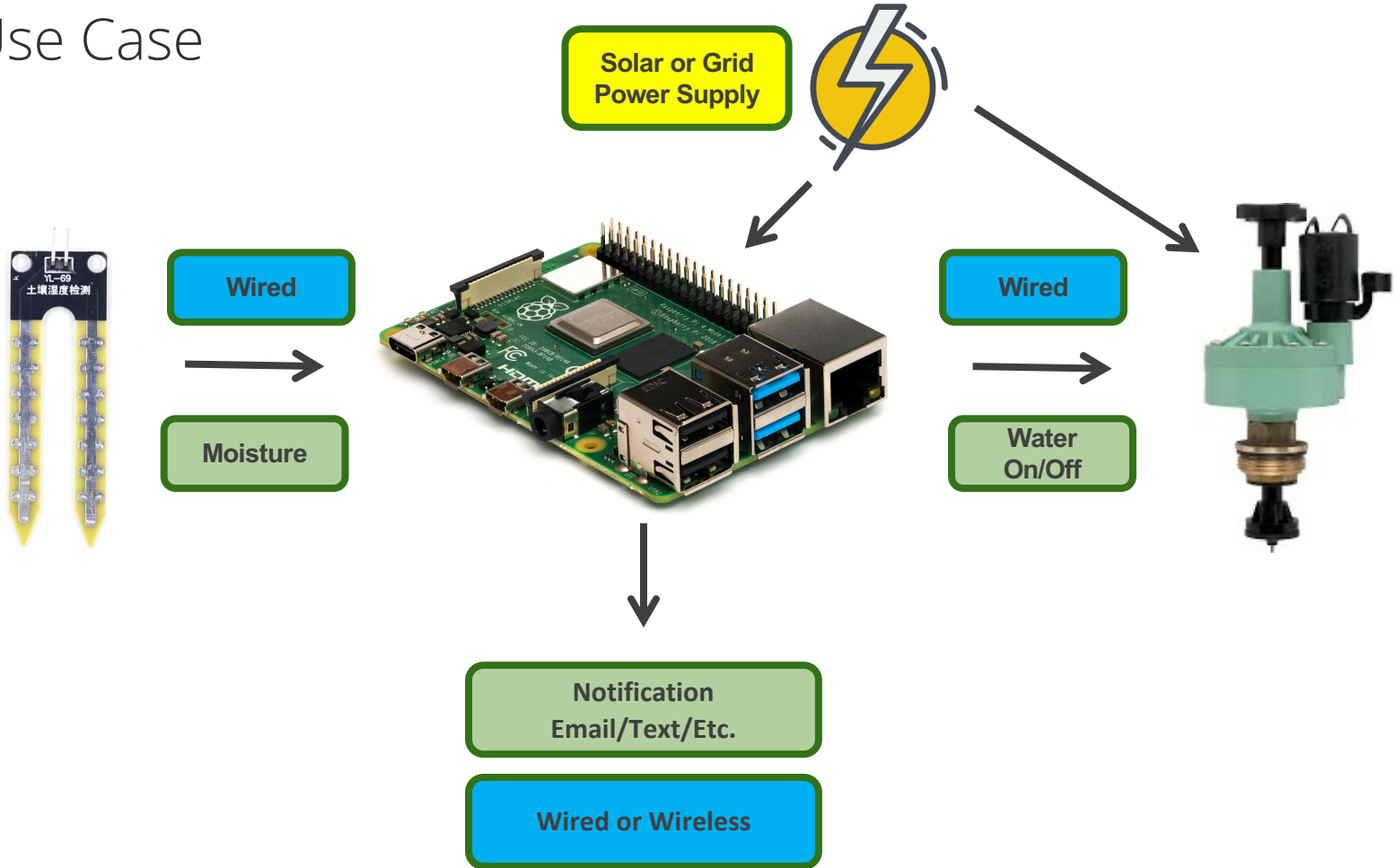


To Market

Automated or Manual
Adjustments



Use Case



Use Case Discussion – Required Features

Starting Discussion - List of required features:

- › Connectivity (bluetooth, wifi, LoRa, ...)
- › Power (battery & battery life, solar, ...)
- › Cost
- › Data transfer/API
- › Environmental hardiness (IP rating, operating temperatures, ...)

Next Meeting

Next Meeting

- › Next Meeting: Tuesday, August 17 @ 10am PT/1pm ET

Thank You

 THE **LINUX** FOUNDATION
 **LF** EDGE

Backup

Use Case Discussion

Follow Up:

- › Project Management
- › Humidity Sensors
- › Trello
- › Code Repository



AgStack

A Linux Foundation Project

1. Bi-weekly on **Thursdays** at 9:00am PT (starting this Thursday, May 20th)
2. **ACTION:** Self-subscribe to the Technical-Discuss list -- you will then receive the meeting series with the Zoom link.

SIG Governance

Open Positions:

- › Secretary to collect and publish info, templates, minutes, maintain docs?
 - › Until we have one, weekly, rotating, appointment.
- › Anything else?

SmartAg SIG Initial Goals

- › Build up a group of Stakeholders who have
 - › identified core competencies
 - › agreed to contribute resources to the SIG
- › Identify, document, and agree to core beliefs
- › Identify and prioritize use cases and timelines
 - › Schedule Design Session
- › Recruit any missing expertise
- › Begin regular public meetings
- › Build end-to-end use cases
- › Promote and evangelize use cases and results

Upcoming Events

- › Let's brainstorm and collect info about events we should participate in
 - › Conferences
 - › Meetups
 - › Webinars
 - › Other?

Example of Core Beliefs

- › With sufficient sensors and data, you should be able to apply the optimum resources to grow crops to their maximum yield.
- › You should not need chemical fertilizers and pest control to grow healthy crops (whenever possible)
- › Potential harm to crops can be caught earlier, and with less impact to yield, through intensive imaging and analytics (24hr farming).
- › You can prevent harm to, and improve the well-being of, livestock with fewer manual interventions through judicious monitoring and analytics.
- › Local analytics can respond more quickly, and with less expense, than cloud-based analytics, especially in areas with little to no internet connectivity.