

## School of Computing Senior Design Project (SDP) – FarmOS Digital Grazing Plan

- The key components of a Senior Design project statement are **an Engineering Challenge and Deliverables**.
- The components listed below are **for reference only** to help you to define a projects statement. Please use all or some of them as you find it appropriate to describe a project.

**(SPONSOR) background:** Nick Weinstock, BOTL Farm. BOTL Farm is a pasture-based sustainability-focused livestock farm in northeast CT, raising pigs, lambs, goats, and chickens. All animals are Animal Welfare Approved, and sheep and goats are Certified Grassfed by A Greener World.

**Project background:** There is an open source farm management software called farmOS (<https://farmos.org/>) written as a drupal distribution. It provides record management of all types to farmers. The code is open source and development is community driven. The projects main developer is located in Mansfield CT and there are everal farmers in the state using the software as is.

In the current version of the software, there is no grazing plan module. There was one for version 1 of farmOS ([https://github.com/farmOS/farm\\_grazing](https://github.com/farmOS/farm_grazing)), but it was a very early version that was not workable and is not currently compatible with v3. This module would help organize grazing animals movement on the farm. It would display where the animals are and where they plan on moving the rest of the season. If a timeline would be delayed, then the software would update for all future plans. It would be similar to a holistic management grazing chart done by hand ( <https://holisticmanagement.org/product/grazing-plan-control-chart/>).

Currently there is a group of programers working on a "crop plan" which is making the building blocks needed for a future grazing plan. The primary developers of the project excited to see this happen.

### **Project requirements / technological challenges:**

1) Develop a workable grazing plan module for farmers to use in the current version of FarmOS.

### **Preferred technologies - samples:**

Backend: Use Firebase

- User registration
- Cloud storage
- Push notifications
- Analytics

App implementation:

- Option** 1) implementation within [FarmOS](#)

Potential project expansion potential)

- Is there a specific software package required for the projects? Y  X  N

Which package (name/version) FarmOS v3

- U.S. Citizen/Person (green card) Required? Y  N
- Will Export Controlled data be used in project (EAR/ITAR) Y  N
- NDA/IP Agreements required? Y  N
- Other considerations:

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