

Sprint 4 Plan

Sprint 4: Product delivery

Duration: 2 weeks [🔗](#)

Sprint goal

The goal of sprint 4 is to check all previously completed functions to ensure that they can run correctly. And improve some imperfect functions. If possible, add additional functions mentioned by the customer. Complete the final delivery of the project, including providing running documentation and overall project code.

Function optimization

****Each story point roughly takes 1 week to complete, but it also depends on the availability and capability of the team members. Please refer to the Gantt chart below for detailed execution timelines.**

1. Include the coordinates of the shooting location in the thermal image (US-D11)
 - Get the current coordinates of the thermal imager in farmbot
 - Add coordinates to the thermal image
 - Priority: P1
 - Story Points: 1 SP (1 week)
 - Assignee: Naixin Xu, Yinkai Chai, Haoyang Zheng
2. Improving the stability of the rotating connection parts of 3D printed thermal imagers (US-D3)
 - Find the cause of unstable rotating parts
 - Optimize rotating parts
 - Priority: P1
 - Story Points: 1 SP (1 week)
 - Assignee: Haitian Li, Steve Zhang, Junye Zhou

New functional decomposition

Since Sprint 4 is short, our feature development phase is basically over. If there is extra time we may complete the following new features.

1. Add thermal imaging capabilities to the farmbot operating sequence (US-D12)
 - Add new farm operation sequence
 - Add thermal imaging capabilities to sequences
 - Priority: P2
 - Story Points: 1 SP (1 week)
 - Assignee: Naixin Xu, Yinkai Chai, Haoyang Zheng

Team assignment

As given above, each task is assigned to the most appropriate member based on the team member's technical abilities and professional experience, which can improve work efficiency and work quality. The content below describes their concerns on risks and possible mitigation strategies.

Risk assessment and mitigation strategies

- Data security issues:

Description: There may be data security issues and data privacy issues

Likelihood: Moderate

Impact: High

Mitigation strategy: Use encryption technology and access control to strengthen basic data protection measures during the development process.

- Failure in 3D printing procedure:

Description: The production of adaptable mounting mechanisms for the FLIR camera may face challenges due to failures in the 3D printing process, such as print failures or material defects, which can delay the development of hardware components.

Likelihood: Moderate

Impact: Moderate

Mitigation strategy: Implement a quality control process that includes pre-print simulations and post-print inspections. Maintain backup 3D printers and materials to avoid downtime. Train team members on troubleshooting common 3D printing issues and establish relationships with external 3D printing services for emergency needs.

Meeting

- Daily stand-up meeting

We schedule short meetings every three days, lasting about 6 minutes. Each team member will take turns reporting on the progress of the past three days, future plans and obstacles encountered. This helps problems be identified and resolved in a timely manner, ensuring the project stays on schedule. Monitor progress and resolve any issues early.

- Meetings with mentor

Since the project is nearing its end and there is not much content to report to the supervisor, we have decided, after discussing with the supervisor, to schedule meetings as needed and cancel the originally planned weekly meetings. During the meetings, the team will share any project challenges and confusions they encounter and seek professional advice and suggestions from the supervisor.

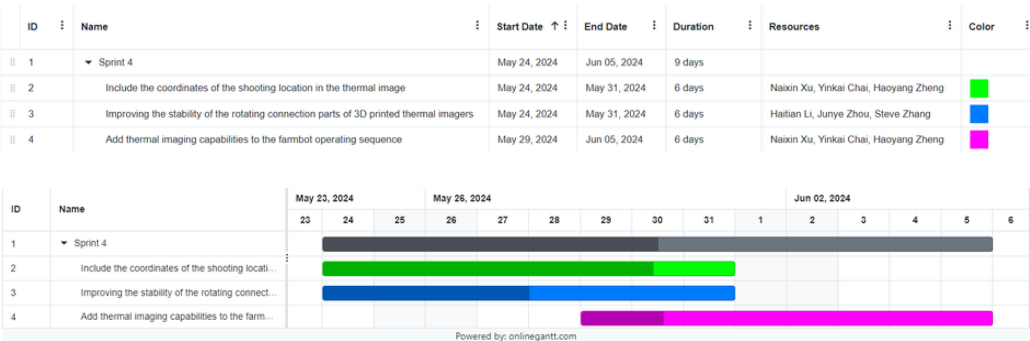
- Meetings with clients

Due to the client's busy schedule, we cannot accurately determine the meeting times. In previous meetings, we have already confirmed the final form of the project and all the required functionalities with the client. In subsequent meetings, we will further demonstrate the finalized project to the client.

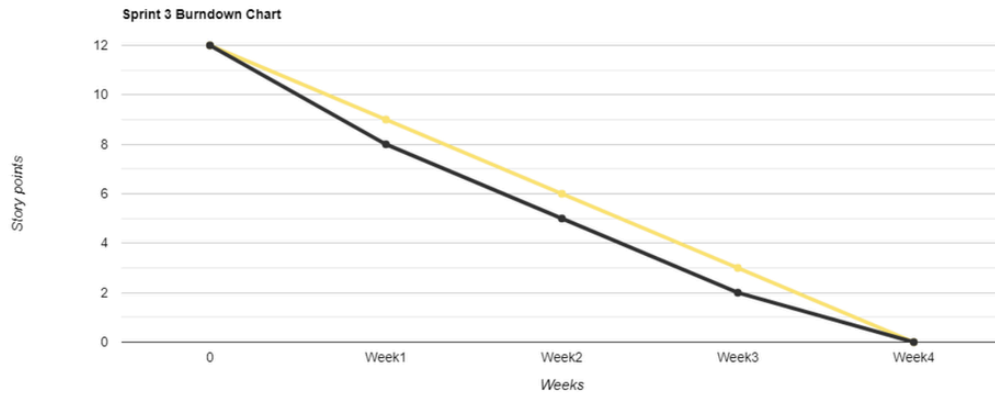
- Review and retrospective meetings

It was confirmed that there are no such meetings for sprint 4.

Gantt chart



Burndown Chart



In the early weeks of the sprint, there were fewer deadlines for other subjects, allowing us to dedicate more time to this project, which resulted in faster progress. Overall, the progress of Sprint 3 was completed within our expected timeframe. In Sprint 4, we will focus on the final optimization and delivery of the project.