

Sprint 1 Planning

Sprint team members

| Name | Role |
|-----------------------------|------------------------------|
| Sicheng NIE | Scrum Master |
| Renwei Hu | Product Owner |
| George Wang | Architecture Lead |
| Siyi Liu | Development Environment Lead |
| | Deployment Lead |

Objectives

1. Review the Agile software development approach
2. Collect and organise client requirements
3. Conduct background research on relevant fields (computer vision + voice recognition)
4. Get familiar with the Robot Operating System (ROS)

Sprint 1 backlog

| Epic | Epic ID | Task | Sub Task | Task ID | Story Point (1-10) | Assignee | Priority | Status |
|--|---------|------------------------------|-----------------------------------|---------|--------------------|--|----------|-------------|
| General Admin | GA | Set up essential tools | Create Trello board | GA 1.1 | 1 pt | Sicheng NIE | HIGH | DONE |
| | | | Join Confluence | GA 1.2 | 1 pt | All | HIGH | DONE |
| | | | Create a GitHub team repository | GA 1.3 | 1 pt | Sicheng NIE | HIGH | DONE |
| | | Documentation Update | Confluence basic structure | GA 2.1 | 2 pt | Renwei Hu | HIGH | DONE |
| | | | Confluence home page | GA 2.2 | 1 pt | Renwei Hu | MEDIUM | DONE |
| | | | Weekly Trello screenshot | GA 2.3 | 1 pt | Renwei Hu | MEDIUM | DONE |
| | | | Finish Sprint 1 planning | GA 2.4 | 4 pt | All | HIGH | DONE |
| | | | Check sprint checklist | GA 2.5 | 2 pt | Sicheng NIE | HIGH | DONE |
| | | Meetings | Meeting minutes | GA 3.1 | 3 pt | George Wang | MEDIUM | DONE |
| | | | Create a client meeting Zoom link | GA 3.2 | 1 pt | Renwei Hu | MEDIUM | DONE |
| | | GitHub | Upload relevant sprint docs | GA 4.1 | 3 pt | All | HIGH | DONE |
| Client Requirements | CR | Collect project information | Client meeting | CR 1.1 | 3 pt | All | HIGH | DONE |
| | | Organise client requirements | Do / Be / Feel list | CR 2.1 | 2 pt | Sicheng NIE | HIGH | DONE |
| | | | Motivational model | CR 2.2 | 3 pt | George Wang | HIGH | DONE |
| | | | Personas | CR 2.3 | 3 pt | Renwei Hu George Wang | HIGH | DONE |
| | | | User stories | CR 2.4 | 3 pt | Sicheng NIE Renwei Hu | HIGH | DONE |
| | | | Create consistent task ID | CR 2.5 | 2 pt | Renwei Hu | MEDIUM | DONE |
| Detect objects visually (Computer Vision) | CV | Background research | Familiar with YOLO | CV 1.1 | 4 pt | Renwei Hu | HIGH | IN PROGRESS |
| Interact with the environment arurally (Voice Recognition) | VR | Background research | Natural language voice commands | VR 1.1 | 4 pt | George Wang | HIGH | IN PROGRESS |

| | | | | | | | | |
|--|----|---------------------|---------------------|--------|------|-----|------|-------------|
| Integrate visual and audio inputs (Decision Making) | DM | | | | | | | |
| Move robotic arm (Robotic Control) | RC | Background research | Familiar with ROS | RC 1.1 | 5 pt | All | HIGH | IN PROGRESS |
| | | | Research on ROS4HRI | RC 1.2 | 4 pt | All | HIGH | IN PROGRESS |
| Check & adjust system status (System Status) | SS | | | | | | | |

Potential risks

| Risk | Mitigation |
|---|---|
| Ambiguous requirements | List the most reasonable explanations considering actual scenarios of use, and further clarify during the next client meeting |
| Inconsistency between user stories and tasks listed on Trello | Use consistent epic ID and user story ID |

Sprint planning resources

- <https://www.atlassian.com/agile#:~:text=The%20Agile%20methodology%20is%20a,planning%2C%20executing%2C%20and%20evaluating.>
- <https://stackify.com/agile-methodology/#:~:text=Examples%20of%20Agile%20Methodology,pick%20one%20or%20two%20methods.>
- <https://pjreddie.com/darknet/yolo/>