Sprint 2 Postmortem

Volt & Pepper

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Sprint Planning Meeting Summary

During our sprint-planning meeting we discussed what we needed to complete for this sprint and the following sprint. We then traded design ideas for our system, and we discussed decision matrices for how we should choose the design. Lastly we assigned specific tasks to members based on their interests.

Sprint Planning Notes

Design ideas
- figure out arms
- trade studies on parts
- research on techniques
- one hand many gloves
- 2 vs 4 wheel vs treads
- Arduino vs raspberry
- motor shields

Decision matrices
- Important sections
- mathematical reasoning
- weighting factors

Restructuring of team tasks
- Assigning specific task to member

Interests for trade studies
- Brittany: Line following
- Gary: Servos, motors
- Greg: Microcontrollers, sensors
- Nezar: Power supply, shields

Discussion of Tasks

During the sprint planning meeting for sprint 2, we defined tasks that needed to be completed during this sprint. These tasks make up our sprint backlog, and were given a difficulty rating from 0 to 5, with 5 being the most difficult.

Table 1 - Tasks to be completed this sprint. Difficulty scale from 1 to 5, with 5 being the most difficult

Tasks	Difficulty
Trade Study on Components	3
Budgeting	4
Research Possible Methods	5
Research Prototypes	4
Design Initial Prototype	4

We also defined tasks that will be addressed in sprint 3. These tasks were also given a difficulty rating from 0 to 5, with 5 being the most difficult.

Table 2 - Tasks to be completed next sprint. Difficulty scale from 1 to 5, with 5 being the most difficult

Tasks	Difficulty
Finalize Budget	3
Finalize Budget Report	4
Assignment of Prototypes	1
Initial Prototype Creation	4

Meeting Logs

During the sprint we held standup meetings throughout the week. These meetings lasted no longer than 15 minutes and addressed three areas from each team member: what we did, what we're doing, and what impediments we had.

Table 3 - Answers to standup meeting questions

Date	What We Did	What We're Doing	Impediments
9/22		• Create initial designs (All members)	• Sickness (Brittany Gary)
9/24	• Created initial designs (All members) • Debated pros and cons of designs (All members) • Broke base design into potential part categories	• Research micro controllers, sensors, and wheels (Greg) • Research line following, sensors (Brittany) • Research micro controllers, servos, motors (Gary) • Research servos, motors, and power supplies (Nezar) • Update designs with other possibilities (All members)	• Sickness (Brittany Gary)
9/25	• Updated designs (All members) • Refined base design	• Update SyRS to account for errors and comments (All members) • Trade study on micro controllers (Greg) • Trade study on sensors (Brittany) • Research pixy cam (Brittany) • Trade study on servos, motors (Gary) • Trade study on power supply (Nezar) • Research micro controllers, sensors, and wheels (Greg) • Research line following, sensors (Brittany) • Research micro controllers, servos, motors (Gary) • Research servos, motors, and power supplies (Nezar)	• Sickness (Brittany Gary)

Date			
9/29	• Completed research micro controllers, sensors, and wheels (Greg) • Completed research line following, sensors (Brittany) • Completed research micro controllers, servos, motors (Gary) • Completed research servos, motors, and power supplies (Nezar) •	• Trade study on micro controllers (Greg) • Trade study on sensors (Brittany) • Research pixy cam (Brittany) • Trade study on servos, motors (Gary) • Trade study on power supply (Nezar)	
9/30	• Completed Trade study on micro controllers (Greg) • Researched pixy cam (Brittany)	• Create report layout (Greg) • Add completed trade studies to report (Greg) • Write micro controller justification (Greg) • Trade study on sensors (Brittany) • Trade study on servos, motors (Gary) • Trade study on power supply (Nezar)	
8/1	• Completed trade study on sensors (Brittany) • Completed trade study on servos, motors (Gary) • Completed trade study on power supply (Nezar)	• Write intro of report (Brittany) • Write decomposition of system for report (Greg) • Write requirements traceability (Nezar) • Write sensors justification (Brittany) • Write motors, and servos justifications (Gary) • Write power supply justification (Nezar)	• Misunderstanding requirements of budget document • Misunderstanding the needs of the customer for the document

| 8/2 | | Write intro of report (Brittany) Write decomposition of system for report (Greg) Write requirements traceability (Nezar) Write sensor justification for simon (Greg) Write sensors justification for line following(Brittany) Write motors, and servos justifications (Gary) Write power supply justification (Nezar) Write chassis justification (Brittany) Write wheels justification (Gary) Compile References (Brittany) | |

Retrospective

During the sprint we worked on creating an initial design for the robot that met the requirements we established in our SyRS. We then conducted several trade studies into the major components of the design such as: micro controllers, motors, servos, sensors, and power supplies. From our trade studies we created a parts list and approximate budget to be used in sprint 3's budget deliverable. Lastly we created a draft of the budget report, to be finalized in sprint 3.

What went well in this sprint?

During this sprint we communicated well, and debated design ideas effectively. Our idea for an initial design was to keep the robot as simple as possible. We did this by coming up with possible ideas, discussed the pros and cons of the idea, and then we all decided on whether it was a good direction to go for an initial prototype.

What happened in this sprint that could use improvement?

Our group shut down after the initial sprint for a few days. This led to the group wasting valuable time at the start of the sprint, and forcing us to make it up later in the sprint. Our organization of the back log could have been improved. Some of our tasks were combined into one post-it note task, when it could have been broken down further.

What will we commit to doing next sprint?

We will commit to working right at the beginning of the sprint on the next deliverable, and using our time wisely. This will allow us to schedule our time more effectively, and hold each other accountable to deadlines, as we have been too flexible with deadlines. Lastly, we will commit to better use of the sprint backlog to keep track of our progress.