Are We There Yet: Sprint 5 Postmortem

**Planning Meeting**

During the planning meeting, we constructed a back log based upon what task each group member would be working on.

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| --- | --- |
| Task | Owner |
| Object detection with camera | Brian P. |
| Line sensing | Alex |
| System movement | Michael |
| Building chassis and making modifications based upon integration needs | Brian S. |

* We discussed a new system design since we felt that our previous design would not work as planned.
* We discussed a new schedule so that we will fulfill all of our tasks for prototype 2

**Stand up logs**

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| --- | --- |
| Date | Meeting Highlights |
| 10/30 | |  |  |  | | --- | --- | --- | | Item | Due Date | Owner | | Rolling Chassis | 11/4 | Alex | | Powered Chassis | 11/6 | Alex | | Arm Spin/Articulation | 11/6 | Brian S. | | Line Following | 11/11 | Alex | | Line following & challenge detection | 11/11 | Brian P. | | Hardware Etch | 11/11 | Michael | | Simon | 11/11 | Brian P. | | Etch and Simon Integrate | 11/18 | All | |
| 11/3 | New:   * Michael: Rewriting Arduino code * Alex: figured out how to mount wheels to axels * Brian S: designed Rubik’s cube and Etch-A-Sketch interactors * Brian P. : Simon interactor designed   Issues:   * Brian P.: sketch isn’t fully correct * Alex – coupling or motor/wheels   For next meeting:   * Brian P. : Simon printed * Alex : rolling chassis * Michael: Etch interactors * Brian S: arm articulation |
| 11/5 | Rejuvenation meeting   * Michael   + No problems working independently outside of lab * Brian S.   + Feels that certain group members are disrespectful   + We need to come together personality wise * Brian P.   + Work effort is lacking   + Harsh, but because has high standards * Alex   + Dissolve attitudes |
| 11/9 | Stand-up  New:   * Brian S.: Chassis is done. Exploring options for mounting camera. * Michael: understood how steppers work * Alex: working with Michael to make system move * Brian P.: object detection works at new system height   Issues:   * Brian S.: incorporating camera slider into design * Michael: make motors move and line follow simultaneously seems to have a lot of delay * Alex: working on motor delay issue with Michael * Brian P.: camera isn’t as reliable since it is at an angle. Proposed design change   Next:   * Brian S.: rotating attachment disk * Michael: motors move forward and backwards * Alex: trans-axis movement of motors * Brian P.: send how many inches system needs to move to be aligned with object |
| 11/10 | Stand-up  New:   * Michael: line following algorithm working * Brian P.: camera mount and detection tweak done * Brian S.: camera mount done * Alex: line following output needs to be changed to make moving easier   Issues:   * Michael: corners and intersections need to be figured out algorithmically * Brian P.: ultrasound detector not in yet for range finding * Brian S.: need final placement of wheels and motors * Alex: couplers for motors and wheels broke   Next:   * Michael: finalize algorithm * Brian P.: camera mount will move and properly detect * Brian S.: disk for attachments will be done * Alex: fix slow movement speed |
| 11/12 | Stand-up  New:   * Michael: Algorithm is working * Alex: stepper motors still a problem speed wise * Brian S.: move away from attachment disk. Keep all challenges in the front of the robot * Brian P.: Arduino range senses   Issues:   * Michael: wheels don’t work to physically test algorithm * Alex: no issues to report * Brian S.: need to figure out how to implement new attachment handler * Brian P.: power Arduino/Pi externally   Next:   * Michael: Algorithm tidied up and working * Alex: wood coupler if 3D parts don’t work * Brian S.: new chassis/challenge handler * Brian P.: camera slider will move * All: chassis version two with line follower on opposite side. |

**What Went Well**

During this past sprint, we figured out that our team dynamics were pretty bad. It got to the point where we all became very irritated with each other, which caused work to break down. As a result, we evaluated where we were as a team and resolved to turn it around. We have begun to work much better together, and have a clearer vision of what our system will be and do.

Coinciding with our new vision, we have begun work on a more viable design that we all feel will work. This new design is less complex than the prior design, allowing for less failures and less ambiguity. We now have a stable design that we can work towards.

**What Could Use Improvement**

Next sprint we need to improve our communication. While we did completely change our communications style and behavior at the end of the sprint, we need to make sure we keep the communications constant and effective during the whole sprint. If we allow our communications to lapse, we could enter into another period of irritation.

Additionally, next sprint we still need to improve our scheduling, albeit slightly. While our scheduling is leaps and bounds over where it used to be, it can still be improved a little. We have recovered a good bit of lost time, but we are still a few days behind schedule. If we improve our scheduling, we can be sure to meet our deadlines.

**Our Commitments This Next Sprint**

During this next sprint, we need to keep the momentum that we have built up. We started to get our design and ideas rolling towards the end of Sprint 5, and we need to make sure we keep that momentum. If we can continue with the ideas and the pace we have, we will surely be successfully.

Furthermore, we need to make sure we keep working together the way we have been. With all of us attacking the problems and obstacles in the way we have been, we will be certain to achieve a final product we can be proud of. .

**Retrospective**

Spring 5 was a revitalization sprint in many ways. We realized that we were not working well as a team, and reevaluated our work styles. We have really begun to work better and work towards a unified vision. We feel that with our new vision and design, we will be able to meet our deadlines and demands, whereas we most likely would not have before. Even though we didn’t go about it in the best of ways, it is good that we got these issues out of the way early so that we may focus on the real product later on in the term.