

Group 2 Team Organization Evaluation – PROJECT#1

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Team Organization Evaluation and Plans

1.1 Initial Plan & Time Line

As the initial plan stated, there were three major tasks being divided into separate groups working towards accomplishing the project goal and deadlines.

- (a) The designer group consisting of the main design and secondary design group were to design the chassis / sensor locations and wheel / motor design.
- (b) The coding was to be accomplished by dividing into three sub groups namely Color recognition, velocity control and turning control.
- (c) The third and final group was to complete the testing and de-bugging.

We had defined the basic group structure to function democratically. We had decided not to delegate jobs to one specific person and decisions were to be made on majority basis.

1.2 Team Organization Evaluation:

We would like to divide the evaluation into four parts based on various sub-group

- 3.2.1 Team Division and Job Allocation
- 3.2.2. Communication between teams
- 3.2.2 Testing & Performance
- 3.2.4 Final Demonstration

1.2.1 Team Division and Job Allocation

Overall, our team organization worked quite well. Each team member completed his required individual tasks. However, with the impending time constraints and strenuous work schedule of each member, we faced quite some difficulties meeting our milestones and we re-adjusted most of the deadlines.

As described in the team organization plan, Prateek was to do the main design of the robot and Kumaresh & Jonathan were to be involved in the secondary design. The work on coding was shared as follows:

Color Recognition	: Jonathan
Velocity Control	: Prateek (Main) and Kumaresh
Turning Control	: Kumaresh

Finally , Testing / debugging was to be a combined effort .

Everyone contributed ideas which were incorporated into the robot design, which helped ensure that the conceptual design was correct. When one member hit a hurdle, other members contributed to the brainstorming process until a solution was found.

Most importantly the team members understood each other's time or potential constraints and helped each other tide away to finishing the designated work.

1.2.2 Communication between Teams

The best virtue of our group was open communication between all the members. We conducted lots of groups meetings lasting long and strenuous hours. All the members were very particular in attending all the group meetings.

Each member was very specific in expressing his view towards the issues and was patient to listen to other member's point of view. Also team was univocal in agreeing to decisions made.

1.2.3 Testing & Performance

The construction / design group had some setbacks initially as the two wheel design failed due to excessive slipping of the wheels. Because of this, we had to change the robot construction to a treaded design. Treaded design made us change almost the whole robot apart from the housing. This also made us re-design the original milestone planning.

Testing of the code on the final robot design took more time than we expected. Mostly because, although we thought that we had a perfect design and good code to back it up, the motor imbalance would not allow the robot to go straight. We tried for hours and hours, first using a error correction code and later on deleting the same, just to some how make the robot go straight. We changed the speed and turning code again and again. However, the camera program didn't take much time to grab all the colors.

The robot turned well and detected the colors properly, but only could not go straight.

1.2.4 Final Demonstration

As we could see , despite our tremendous effort, the final result was not satisfactory as we could not run the robot straight and we had to keep navigating the robot again and again to go in a straight line. Moreover, in the first run , the robot could not recognize the color , which while testing , it did for numerous number of time. However in the second run, the robot picked up all the colors (except for blue at one occasion).

But overall, it was not a good performance and we definitely should have done better.

1.3 Future plans for Team Organization and Planning

We think that we had planned our group activities and task allocation properly. Only thing we should concentrate more in future is on putting extra efforts on testing the robot on the demonstration room. Also we should rotate the group activities so as all the members can be exposed to minuteness of each work. But we will be retaining the democratic approach towards addressing issues as that we found is very effective.

P.S : “The idea of dividing the team organization evaluation was taken from submission by group 5 made for Project-1.”