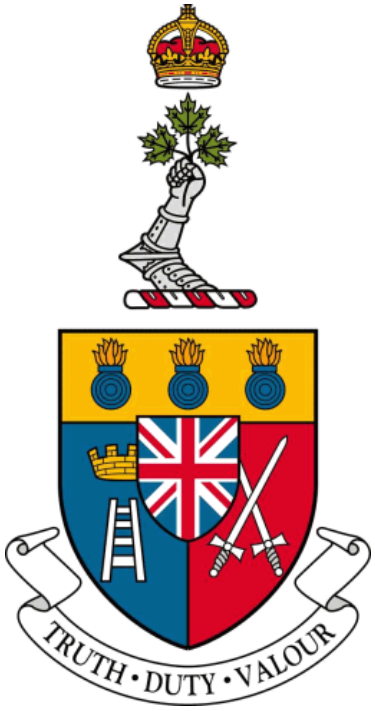
Royal Military College of Canada

Department of Electrical and Computer Engineering



Designing Coatimunde

Computer Optics Analyzing Trajectories In Mostly Unknown, Navigation Denied, Environments

DID-06 - Schedule Update

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Presented to:
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1 Document Purpose

The purpose of this document is to describe the requirements for the Schedule Update. It includes both a graphical and textual representation of the present current project schedule and identifies some schedule risk items.

2 Changes

The major cause of delay for our project is the proper identification of the targets and the robot's ability to move towards said target with obstacles. In the updated schedule, 1, it can be seen that the deadline for this task has been extended. Thus shortening the time we have to port to UAV later in the semester. This task is on the critical path for our project as the next task which is avoiding obstacles and moving towards an identified target with memory of past movements is dependent on the completion of this current task.

ID	Task Name	Duration	Start	Finish
0	**Coatimunde**	**144 days**	**Tue 09/10/18**	**Sun 28/04/19**
1	**TurtleBot**	**100 days**	**Tue 09/10/18**	**Mon 25/02/19**
2	Create a Basic Movement Node	12 days	Tue 09/10/18	Wed 24/10/18
3	Subscribe to the Camera	8 days	Wed 24/10/18	Fri 02/11/18
4	**Camera and Video**	**19 days**	**Tue 30/10/18**	**Fri 23/11/18**
5	OpenCV able to process Video Stream from Camera	9 days	Tue 30/10/18	Fri 09/11/18
6	Able to detect a Target	12 days	Thu 08/11/18	Fri 23/11/18
7	**Movement**	**70 days**	**Tue 20/11/18**	**Mon 25/02/19**
8	Move towards Target	9 days	Tue 20/11/18	Fri 30/11/18
9	Avoid Obstacles and Move towards Target	40 days	Mon 03/12/18	Fri 25/01/19
10	Avoid Obstacles with Memory of Past Movements	31 days	Mon 14/01/19	Mon 25/02/19
11	**UAV**	**53 days**	**Wed 13/02/19**	**Sun 28/04/19**
12	Port to UAV	53 days	Wed 13/02/19	Sun 28/04/19
13	**Data Item Deliverables (DID)**	**106 days**	**Thu 01/11/18**	**Thu 28/03/19**
14	DID-4 Preliminary Design Specification	16 days	Thu 01/11/18	Thu 22/11/18
15	DID-5 Design Review Presentation	11 days	Thu 15/11/18	Thu 29/11/18
16	DID-6 Schedule Update	35 days	Fri 30/11/18	Thu 17/01/19
17	DID-7 Detailed Design Document	45 days	Fri 18/01/19	Thu 21/03/19
18	DID-8 Final Project Presentation	106 days	Thu 01/11/18	Thu 28/03/19

Project: Coatimunde
Date: Mon 14/01/19

Task, Split, Milestone, Summary, Project Summary, Inactive Task, Inactive Milestone
Inactive Summary, Manual Task, Duration-only, Manual Summary Rollup, Manual Summary, Start-only, Finish-only
External Tasks, External Milestone, Deadline, Progress, Manual Progress

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Figure 1: Textual Representation of Schedule

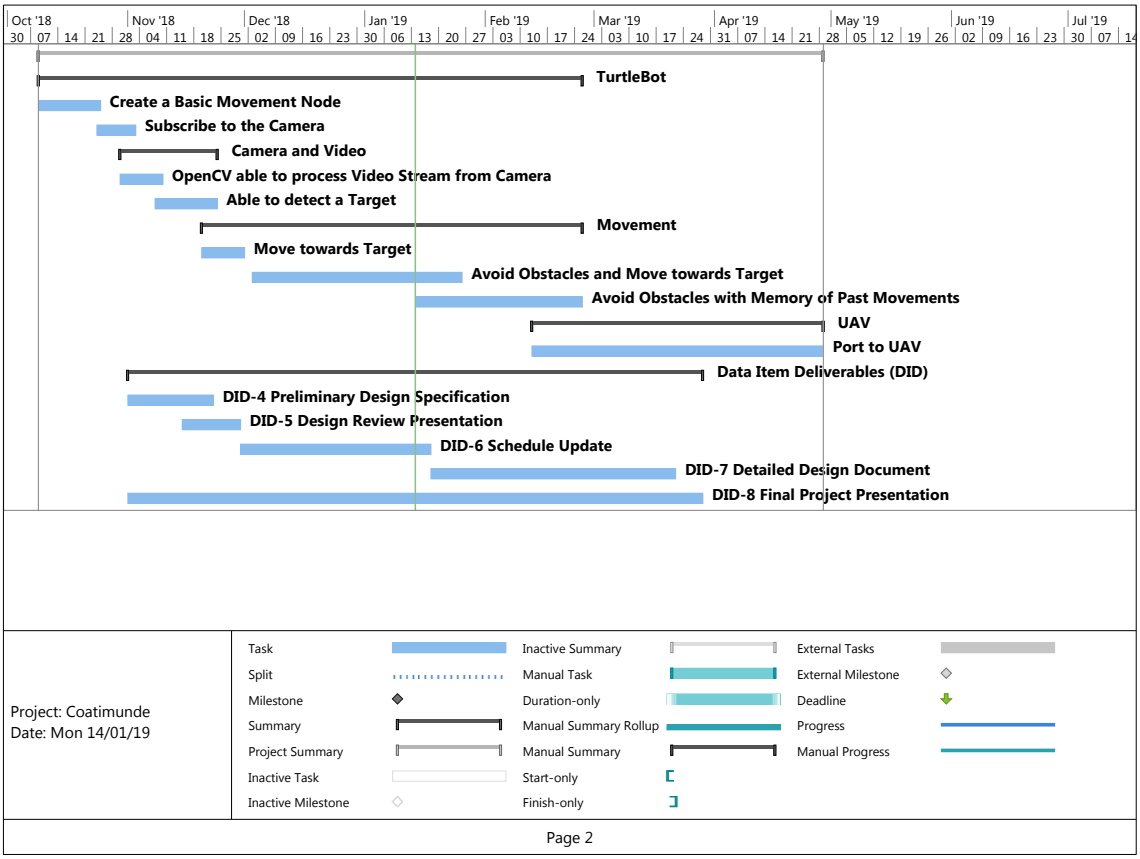

Figure 2: Graphical Representation of Schedule

3 Conclusion

Underestimating the difficulty of implementing even simple computer vision has resulted in significant delays. We intend to abstract away more of the control and use pre-existing modules in the event that there does not end up being as much time as we desire to port our logic to a flying platform.