



MTRN4230: ROBOTICS

Assignment 3

Supporting Documentation

Group 6

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Project Gantt Chart

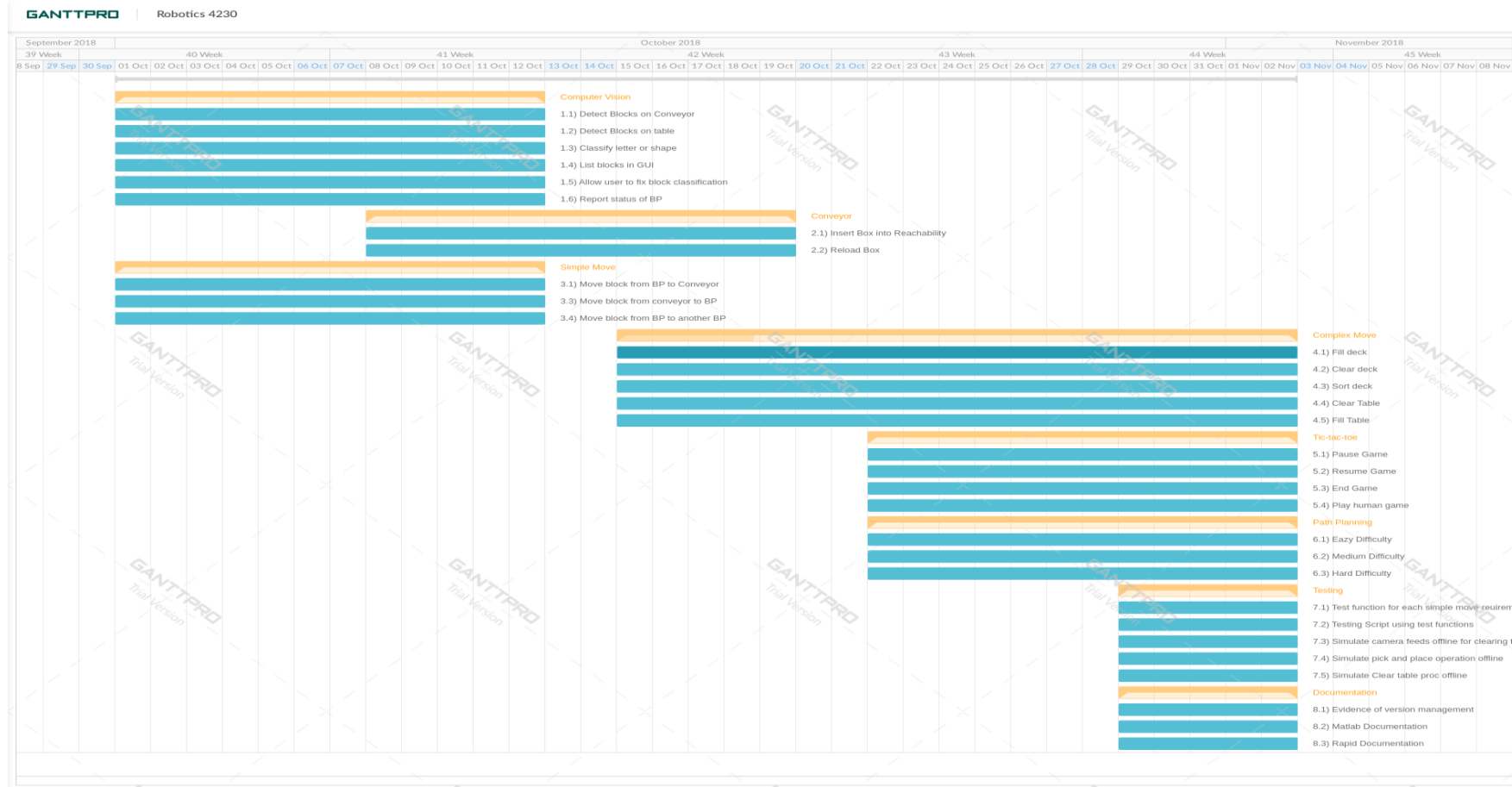


Figure 1: Gantt Chart for Assignment 3

Meeting Minutes

10/10/18

Today the team discussed and delegated roles. Brief summary of roles:

TASKS WK10-12

Leo Wong & Omar Idrees:

- Redesign GUI
- Computer vision 1.5,1.6

Justin Williams & Richard Park:

- upload images from today to github
- Computer vision (except 1.5,1.6)

Weber Ting & Prateek Rai :

- Conveyor
- Simple Move
- record weekly meetings minutes
- create Gantt chart

TASKS WK 12-15

Leo Wong & Omar Idrees:

- tic-tac-toe GUI
- tic-tac-toe AI

Justin Williams & Richard Park:

- Path planning

Weber Ting & Prateek Rai:

- Complex Move
- Testing
- Documentation

17/10/18:

Omar & Leo:

- GUI (Framework completed)

Weber & Prateek:

- Simple Move(Completed) and Gantt Chart(Completed)

Justin & Richard:

- Camera Calibration (Completed) and Converted Camera coordinate frame to world coordinate frame

Project Completion(17/10/18):

TASK	COMPLETION PERCENTAGE
COMPUTER VISION	0%
CONVEYOR	0%
SIMPLE MOVE	100%
COMPLEX MOVE	0%
TIC TAC TOE	0%
PATH PLANNING	0%
TESTING	0%
DOCUMENTATION	0%

24/10/18:

Leo:

- Finished Fill Deck, Clear Deck and sort Deck
- Working on clear table and fill table

Omar :

- Finished Tic Tac Toe GUI
- Working on Tic Tac Toe PvP AI

Justin and Richard:

- Fixing previous code for block detection

Prateek:

- Simulating Robot block pick up

Weber:

- Working on path planning

Project Completion(24/10/18):

TASK	COMPLETION PERCENTAGE
COMPUTER VISION	30%
CONVEYOR	0%
SIMPLE MOVE	100%
COMPLEX MOVE	60%
TIC TAC TOE	20%
PATH PLANNING	0%
TESTING	0%
DOCUMENTATION	0%

31/10/18:

Leo:

- Finished clear table and fill table

Omar:

- Finished PvP AI
- Working on AI vs player

Weber:

- Finished easy and medium path planning and tested it
- Working on Hard path planning

Prateek:

- Finished block pick up sim and clear table sim
- Working on camera feed sim and testing functions

Justin and Richard:

- Fixed code for block detection, completed conveyor block detection, detecting blocks on table and classification of blocks

Project Completion(31/10/18):

TASK	COMPLETION PERCENTAGE
COMPUTER VISION	50%
CONVEYOR	100%
SIMPLE MOVE	100%
COMPLEX MOVE	100%
TIC TAC TOE	50%
PATH PLANNING	66%
TESTING	40%
DOCUMENTATION	0%

7/11/18 :

Leo:

- Finished testing complex move
- Will be assisting other team members

Omar :

- Finishing off tic tac toe Ai vs player with Weber

Weber:

- Finished hard path and tested all of path planning

Prateek:

- finished sim for camera feeds and testing functions
- working on testing script and documentation

Justin and Richard:

- Finished computer vision
- working on improving detection and classification

Project Completion(7/11/18):

TASK	COMPLETION PERCENTAGE
COMPUTER VISION	90%
CONVEYOR	100%
SIMPLE MOVE	100%
COMPLEX MOVE	100%
TIC TAC TOE	70%
PATH PLANNING	100%
TESTING	60%
DOCUMENTATION	0%

Version Management:

Version management for the code and other files was done using Git Hub. Below is a small snippet of the version changes that took place in this project. Please note that this is only a small fraction version changes done by group members to provide evidence of version management and hence, does not contain some group members' names.


Graph	Description	Date	Author	Commit
	14 origin/master 14 origin/HEAD Add files via upload	13 Nov 2018 19:37	RyokuH <4222805	04f498e
	ho	13 Nov 2018 19:23	omar-al-ouf <oma	ba08c3d
	Merge branch 'master' of https://github.com/loewang/MTRN4230-robotics	13 Nov 2018 18:55	omar-al-ouf <oma	1fe7431
	update	13 Nov 2018 18:55	omar-al-ouf <oma	050e222
	Add files via upload	13 Nov 2018 18:48	wnsdud360 <wnsd	086cf3f
	Update Ass3GUI/RemoveBlockConveyor.m	13 Nov 2018 18:28	Leo <c1yhw@hotn	5ee4632
	Merge branch 'master' of https://github.com/loewang/MTRN4230-robotics	13 Nov 2018 17:45	Leo <c1yhw@hotn	e46604f
	update	13 Nov 2018 17:45	Leo <c1yhw@hotn	ed4f0db
	Add files via upload	13 Nov 2018 17:27	wnsdud360 <wnsd	c1d7275
	Update tableDetect.m	13 Nov 2018 17:08	wnsdud360 <wnsd	8a18d1f
	Add files via upload	13 Nov 2018 17:06	wnsdud360 <wnsd	19845b9
	Add files via upload	13 Nov 2018 16:51	juustimw <4328971	7ba4057
	Add files via upload	13 Nov 2018 15:52	RyokuH <4222805	b929d39
	Add files via upload	13 Nov 2018 15:30	juustimw <4328971	324b077
	Add files via upload	13 Nov 2018 0:29	juustimw <4328971	408a971
	Add files via upload	13 Nov 2018 0:26	juustimw <4328971	acfb406
	Add files via upload	13 Nov 2018 0:25	juustimw <4328971	5f046bf
	update	12 Nov 2018 22:36	Leo <c1yhw@hotn	147214e
	Add files via upload	12 Nov 2018 20:21	juustimw <4328971	05f746c
	Add files via upload	12 Nov 2018 13:17	wnsdud360 <wnsd	686295a
	Create test	12 Nov 2018 13:16	wnsdud360 <wnsd	55f549c
	Update Ass3GUI/cameraConveyorParams.mat	12 Nov 2018 11:43	Leo <c1yhw@hotn	252e572
	Added Help functions	12 Nov 2018 11:15	prateekrai4 <3248	21a3814

Figure 2: SourceTree of the GitHub repository showing implementation and use of version management