Autonomous Mobile Manipulator

09-Jan-2018

https://github.com/carebare47/PROJ515/

Project manager

Project dates 31-Jan-2018 - 22-Apr-2018

Completion0%Tasks64Resources5

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Tasks

Resources
Tom, Dan
Dan
Dan
Dan
Dan
3d print
Tom
Tom
PCB production by the university
Tom
Dan
Dan
Dan
Tom, Dan
Tom, Dan
Dan Dan Tom

Tasks

Name	Begin date	End date	Resources
Visual servoing and fiducial tracker	23/02/18	03/03/18	Dan
Gripper close trigger when gripper is in the right place	02/03/18	03/03/18	Dan
Test visual servoing and gripper close (not on arm)	05/03/18	05/03/18	Dan
Head cam	24/02/18	13/03/18	
Choose/install fiducial localisation software (head)	24/02/18	24/02/18	Tom, Dan
Develop fiducial system to detect object and point hand cam at it	07/03/18	13/03/18	Tom
Write node to recieve fiducial detected signal and pass location to waypoint node (Object mapper)	26/02/18	26/02/18	Tom
Test head cam identification and saving with waypoint node	27/02/18	28/02/18	Tom
Headcam can identify, locate and save the location of objects	01/03/18	01/03/18	
Localisation/Navigation	07/02/18	28/02/18	
Make sure everything still works	07/02/18	07/02/18	Tom
Fix encoder	08/02/18	10/02/18	Tom
Evaluate current performance	12/02/18	14/02/18	Tom
Go to object identified by object mapper (potentially with variable goal accuracy)	01/03/18	01/03/18	
Arm	01/02/18	26/03/18	
Mounting arm on base	01/02/18	05/02/18	
Decide on mounting method for arm	01/02/18	01/02/18	Tom, Dan
Design arm mount	02/02/18	02/02/18	Dan
Build arm mount	03/02/18	03/02/18	Dan
Mount arm	05/02/18	05/02/18	Dan
Mounting gripper on arm	14/02/18	24/02/18	
Design gripper to arm mount	14/02/18	21/02/18	Dan
Print gripper mount	22/02/18	23/02/18	3d print
Mount gripper on arm	24/02/18	24/02/18	Dan
Control	01/03/18	26/03/18	
Learn how to control arm	01/03/18	05/03/18	Tom

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Name	Begin date	End date	Resources
Control node	13/03/18	26/03/18	
Move gripper towards identified object	13/03/18	16/03/18	Tom
Pass control to hand cam when close	17/03/18	19/03/18	Tom
Once hand cam node reports success, raise object and bring close to robot	20/03/18	20/03/18	Tom
Testing	21/03/18	26/03/18	
Other software	15/02/18	19/02/18	
Write waypoint node	15/02/18	19/02/18	Tom
Systems integration testing	06/03/18	21/04/18	
Test base identifying and moving towards objects	06/03/18	13/03/18	Dan
Test base picking up objects	21/03/18	05/04/18	Tom, Dan
Test base returning to previously saved waypoint	14/03/18	20/03/18	Dan
Testing of entire system	06/04/18	21/04/18	

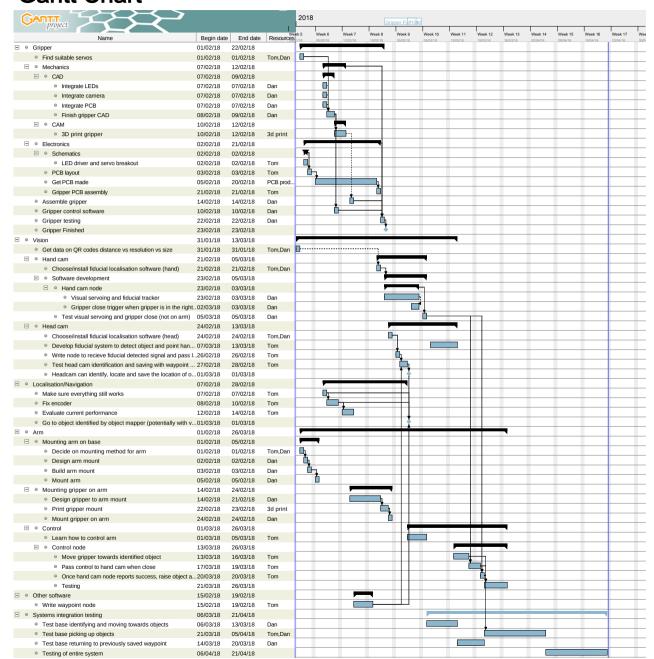
Resources

Name	Default role
Tom	undefined
Dan	undefined
PCB production by the university	undefined
Part ordering	undefined
3d print	undefined

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Gantt Chart



Resources Chart

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± ● Dan		undefined														
⊕ PCB production by the university undefined																
Part orde	ring	undefined														
⊕ 3d print		undefined														