

Weekly Presentation

Week 41

Luleå University of Technology

October 13, 2020





















Overview

- 1 Status update
 - Milestone review
 - Challenges
- 2 Arrowhead
- 3 Computer Vision

Week 41 - Bot V1

⚠ Past due by 2 days 71% complete

Assemble V1 of robot. make the base move with the robot arm





<input type="checkbox"/> 4 Open ✓ 10 Closed	
<input type="checkbox"/>  WIKI for communcation Raspberry pi and Dynamixel documentation raspberri pi 	#25 by edwced was closed 17 hours ago
<input type="checkbox"/>  Finish report workflow - Edward K report 	#31 by Partins was closed 23 hours ago
<input type="checkbox"/>  Test cameras computer vision nvidia 	#15 by Partins was closed 6 days ago 0 of 3
<input type="checkbox"/>  3D-print a box for the NVIDIA nvidia 	#16 by Partins was closed 6 days ago
<input type="checkbox"/>  Print camera case computer vision 	#35 by Partins was closed 6 days ago
<input type="checkbox"/>  Make arm pick something up robot arm 	#36 by edwced was closed 6 days ago
<input type="checkbox"/>  Gripping Mechanism robot arm 	#22 by NiklasDahlquist1 was closed 6 days ago
<input type="checkbox"/>  Make two PCBs with TTL parts movable base robot arm 	#28 by Partins was closed 6 days ago
<input type="checkbox"/>  Make the arm move robot arm 	#27 by Partins was closed 7 days ago
<input type="checkbox"/>  Finish report workflow - Niklas report 	#30 by Partins was closed 8 days ago 11 1

Unfinished

Week 41 - Bot V1

⚠ Past due by 2 days 76% complete

Assemble V1 of robot, make the base move with the robot arm

<input type="checkbox"/>	🕒 3 Open ✓ 10 Closed		
<input checked="" type="checkbox"/>	🕒 Make the base move movable base raspberry pi		💬 1
	#26 opened 8 days ago by Partins  4 of 7		
<input type="checkbox"/>	🕒 Finish report workflow - Albin report		💬 1
	#32 opened 8 days ago by Partins		
<input type="checkbox"/>	🕒 Finish report workflow - Måns report		💬 1
	#33 opened 8 days ago by Partins		

Weekly plan

Week 42

Due by October 18, 2020 0% complete

<input type="checkbox"/>	🕒 10 Open ✓ 0 Closed	
<input type="checkbox"/>	🕒 Implement Forward Kinematics ROS robot arm	👤
	#37 opened 6 days ago by Partins 0 of 5	
<input checked="" type="checkbox"/>	🕒 Implement Inverse Kinematics ROS robot arm	👤
	#38 opened 6 days ago by Partins 0 of 5	
<input type="checkbox"/>	🕒 Write a motor node ROS movable base nvidia robot arm	👤 1
	#39 opened 6 days ago by Partins 0 of 7	
<input type="checkbox"/>	🕒 HSV Color space computer vision report theory	👤 1
	#14 opened 22 days ago by Partins	
<input type="checkbox"/>	🕒 Initial Arrowhead ROS arrowhead raspberrypi	👤 1
	#5 opened 28 days ago by Partins	
<input type="checkbox"/>	🕒 Setup cloud for both groups at LUDD arrowhead	👤
	#42 opened 18 hours ago by Partins	
<input type="checkbox"/>	🕒 Implement Arrowhead - ROS arrowhead	👤
	#43 opened 18 hours ago by Partins	
<input type="checkbox"/>	🕒 Port MV to ROS node ROS computer vision	👤
	#44 opened 18 hours ago by Partins	
<input type="checkbox"/>	🕒 Start writing base part report theory	👤
	#45 opened 17 hours ago by Partins	
<input type="checkbox"/>	🕒 Plan how to integrate everything arrowhead	👤
	#29 opened 8 days ago by Partins	

Challenges

- TTL communication on NVIDIA
 - ▶ Ordered a USB-converter
- Wheel mode gives no feedback
 - ▶ Not needed for line following
 - ▶ We know the distance of QR codes
- Can't get HTTPS work with C++ (Arrowhead)
 - ▶ More on that soon

Arrowhead

Computer Vision

Questions?