



STATUS DOCUMENT 1

“TeaBot” – Tea plantation preservation using an intelligent robot.



STUDENT NAME: Bamunusinghe G.P.

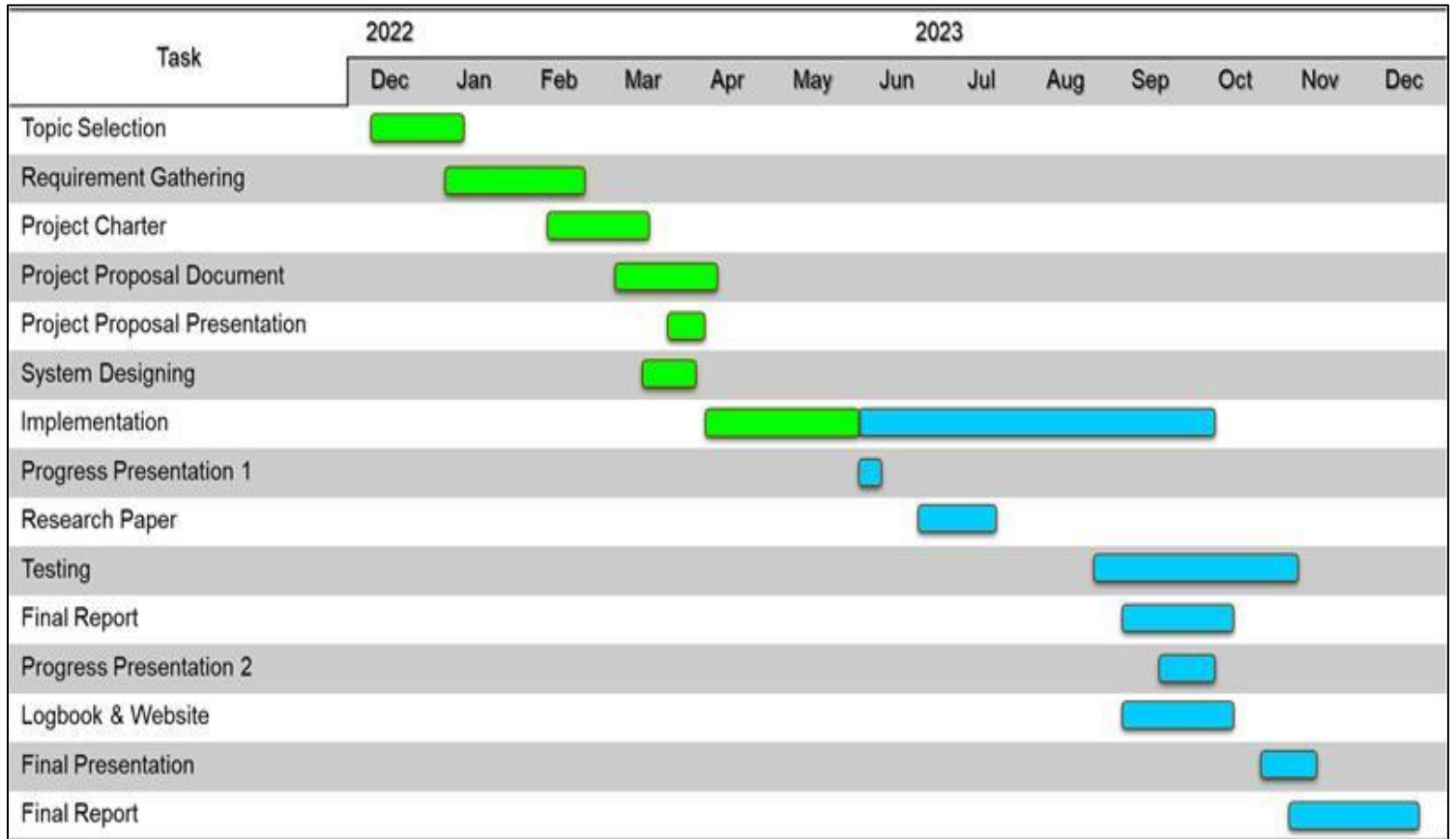
STUDENT NUMBER:IT20011970

GROUP ID: 2023-44

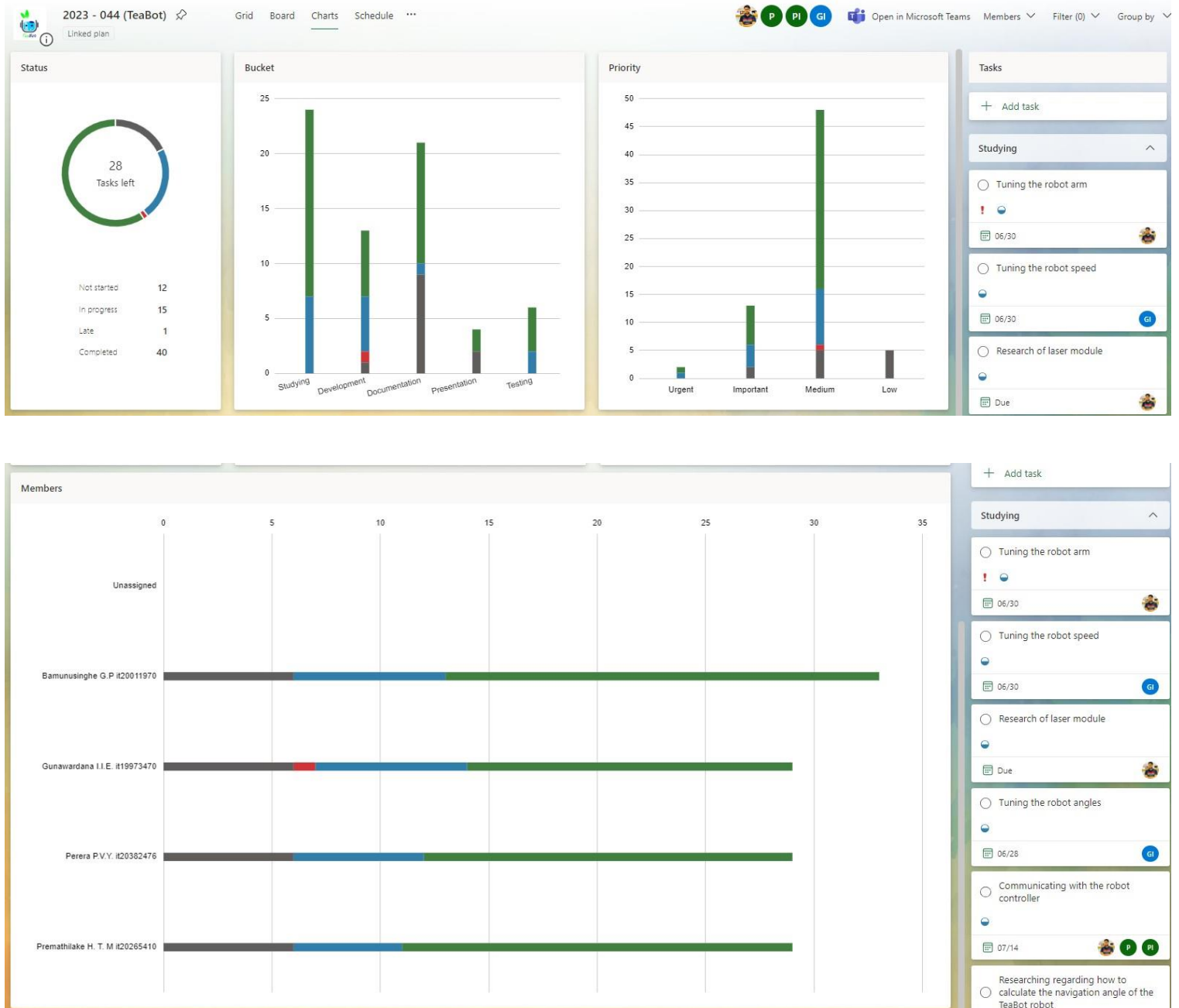
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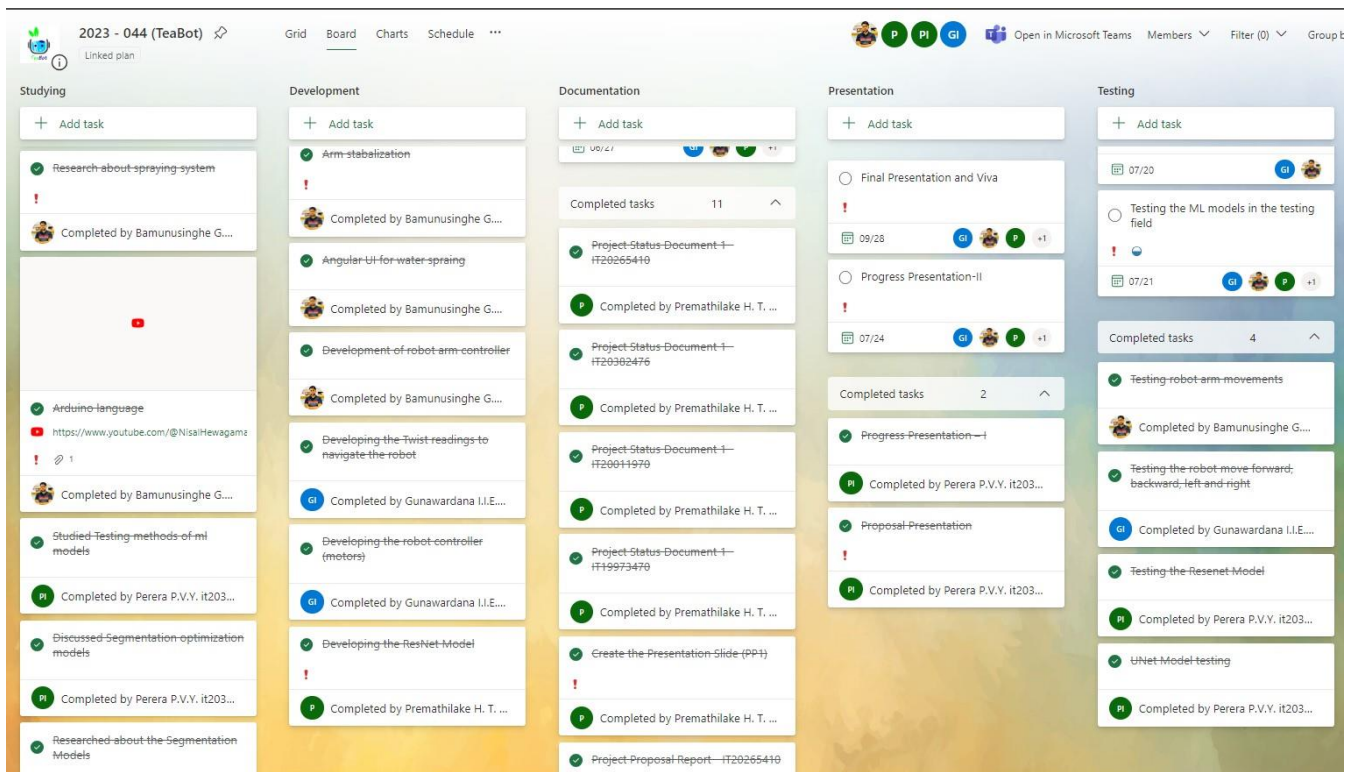
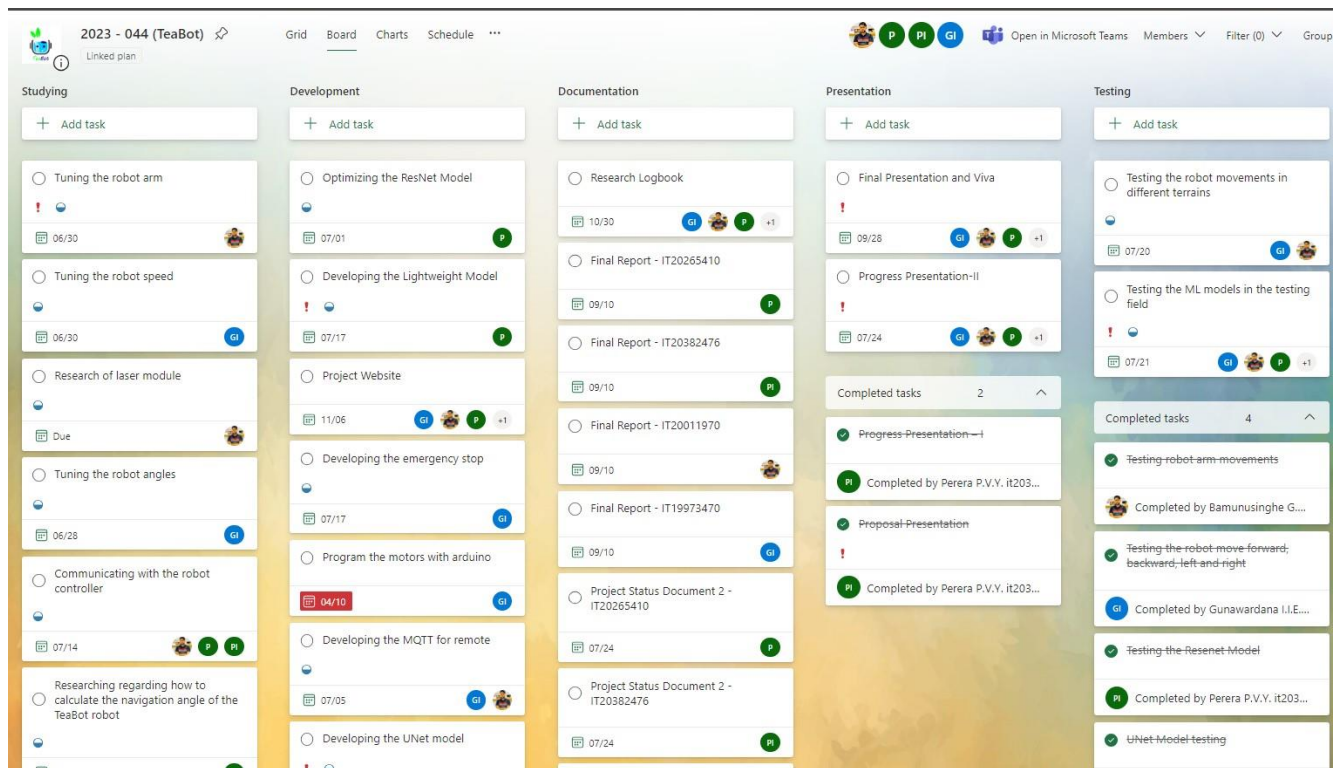
1 GANTT CHART



2 PROJECT VIEWS MS PLANNER



3 WORK BREAK DOWN STRUCTURE MS PLANNER



4 EMAILS, MEETINGS WITH SUPERVISOR, CO-SUPERVISOR

Requesting for an Available Time Slot on 23rd Sunday to Discuss “TeaBot” Research Project

GI

Gunawardana I.I.E. it19973470 <it19973470@my.sliit.lk>
To: Shashika Lokuliyana
Cc: Perera P.V.Y. it20382476; Premathilake H. T. M it20265410 +1 other

Wed 4/19/2023 11:25 AM

[EXTERNAL EMAIL] This email has been received from an external source – please review before actioning, clicking on links, or opening attachments.

Dear Madam,

You mentioned us previously to meet on 23rd of Sunday after 12:30 PM to discuss the progress of our “TeaBot” research project. Could you kindly let me know if there is any availability on Sunday 23rd to discuss about the research?

Thank you for your time and consideration.

Best regards,
Gunawardana I.I.E (IT19973470)

Requesting for an Available Time Slot on 14th Sunday to Discuss “TeaBot” Research Project

GI

Gunawardana I.I.E. it19973470 <it19973470@my.sliit.lk>
To: Shashika Lokuliyana
Cc: Perera P.V.Y. it20382476; Premathilake H. T. M it20265410 +1 other

Wed 5/10/2023 5:48 PM

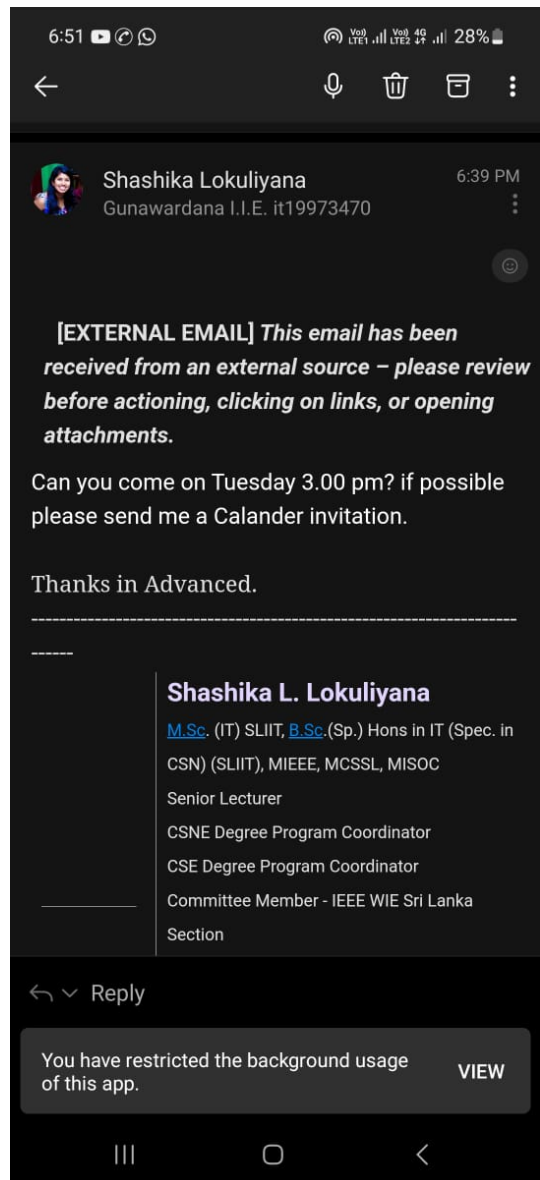
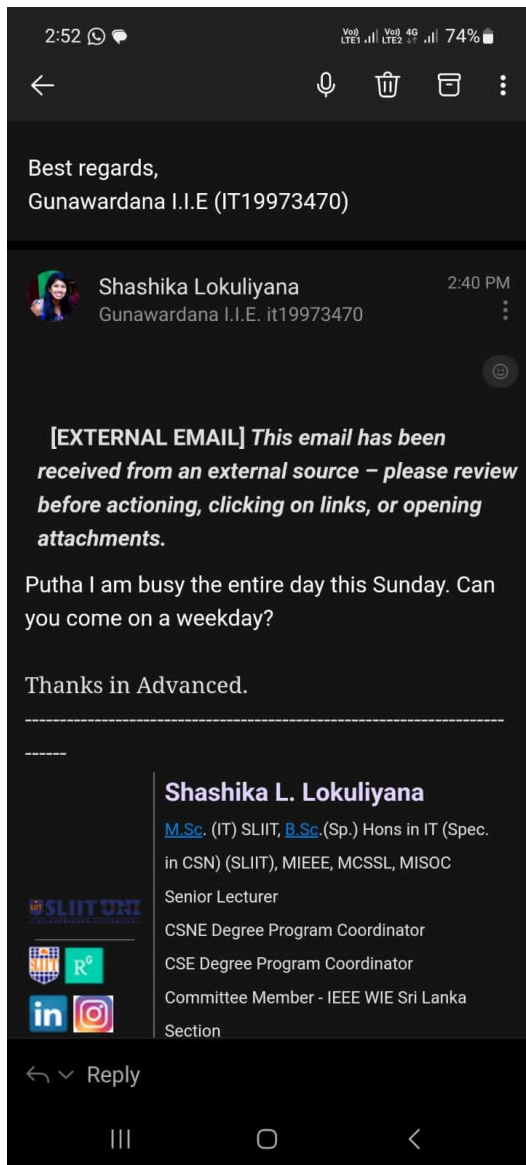
[EXTERNAL EMAIL] This email has been received from an external source – please review before actioning, clicking on links, or opening attachments.

Dear Madam,

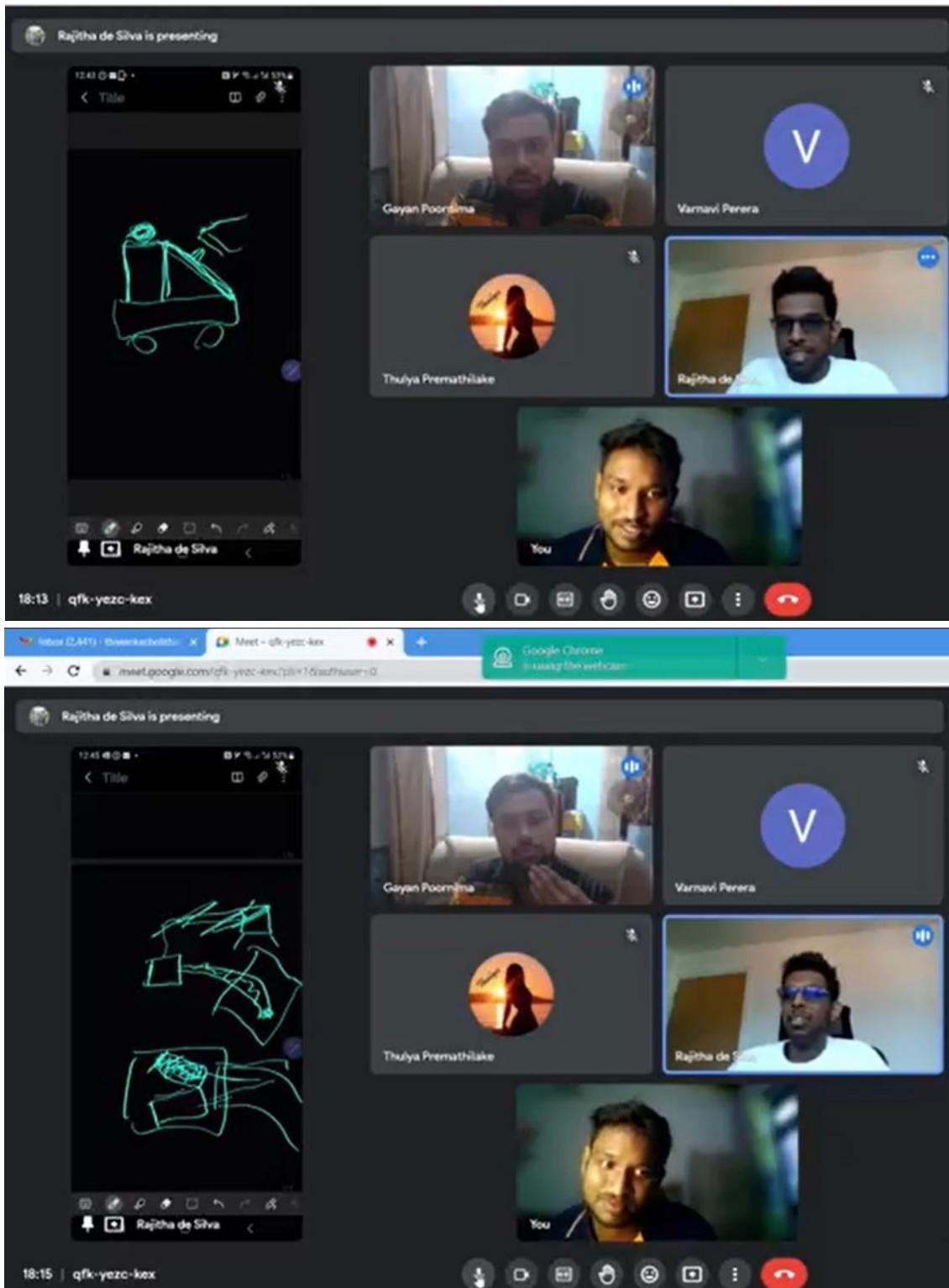
As per the previous discussion, we discussed to meet again on 14th of Sunday to see the progress of our “TeaBot” research project. Could you kindly let me know if there is any availability on Sunday 14th to discuss the research?

Thank you for your time and consideration.

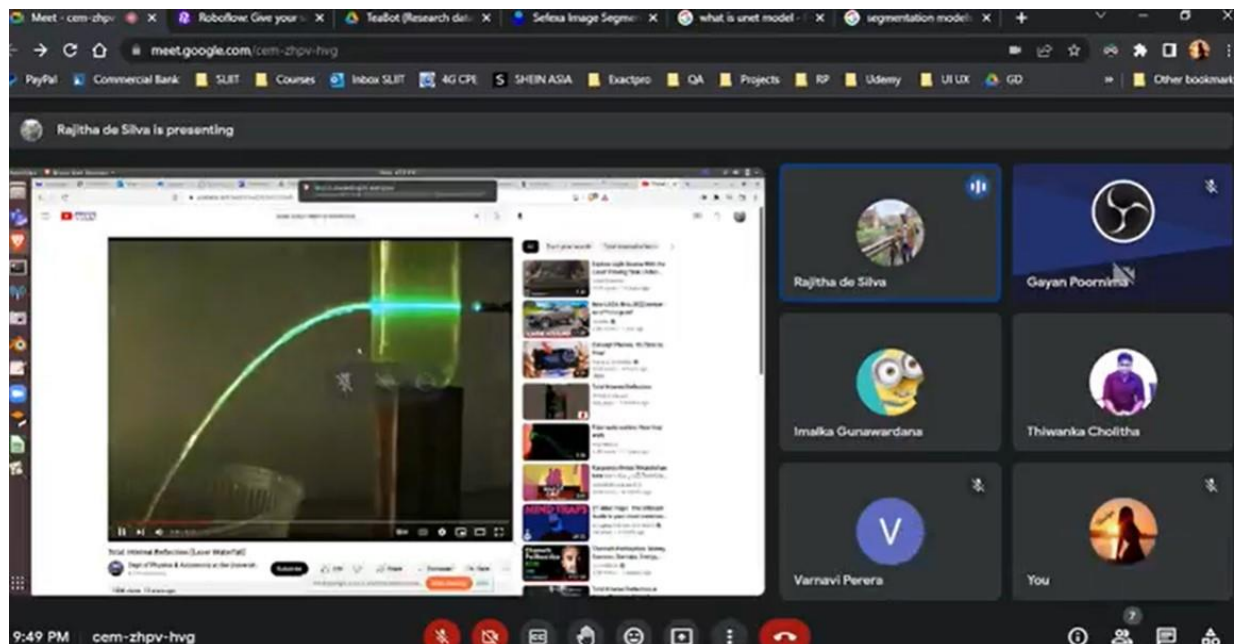
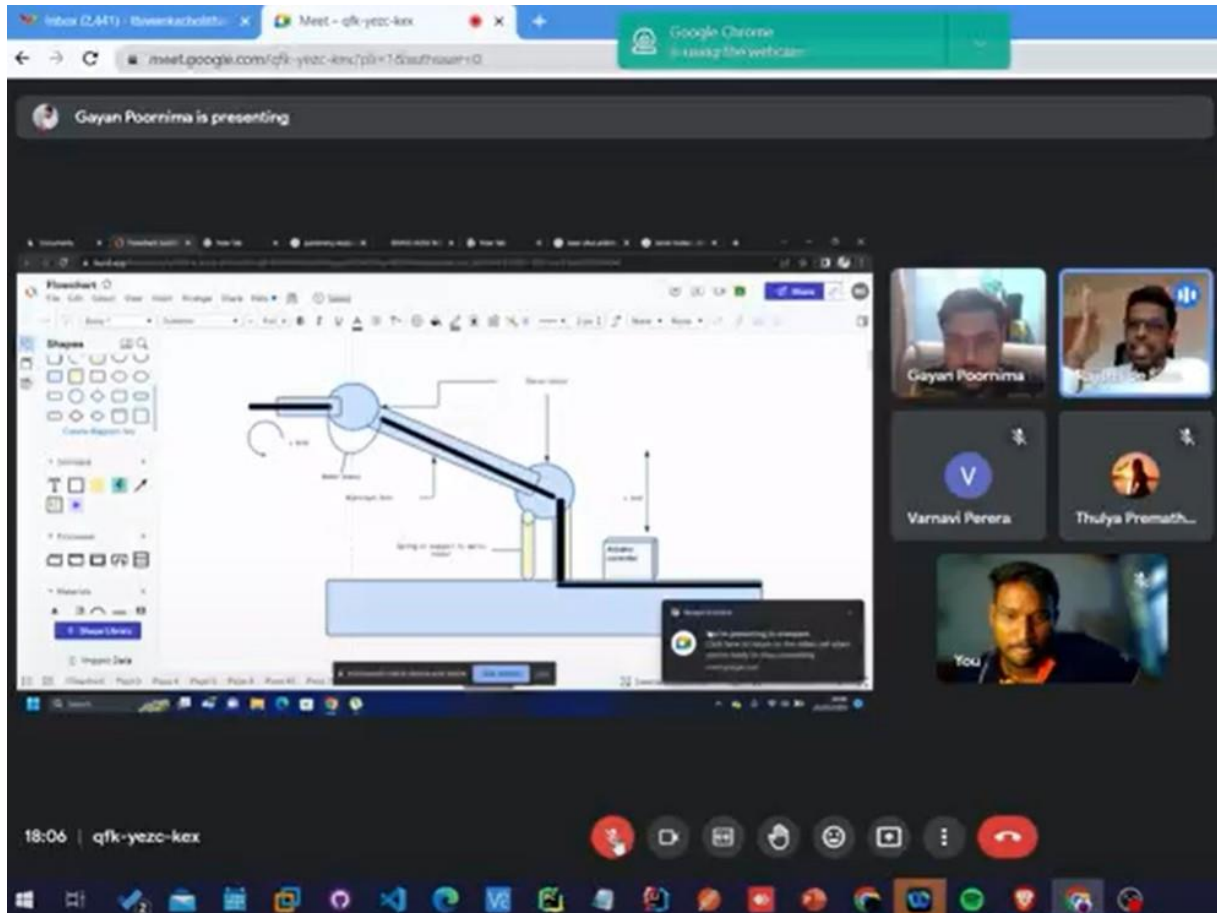
Best regards,
Gunawardana I.I.E (IT19973470)



Screenshots of meetings about water spraying arm design and hardware parts with external supervisor Dr Rajitha De Silva



Discussions regarding Arm Development.



Google Chrome
meet.google.com/qfk-yezc-kex?pli=1&authuser=0

Gayatri Poornima is presenting

Water Spraying System

18:06 | qfk-yezc-kex

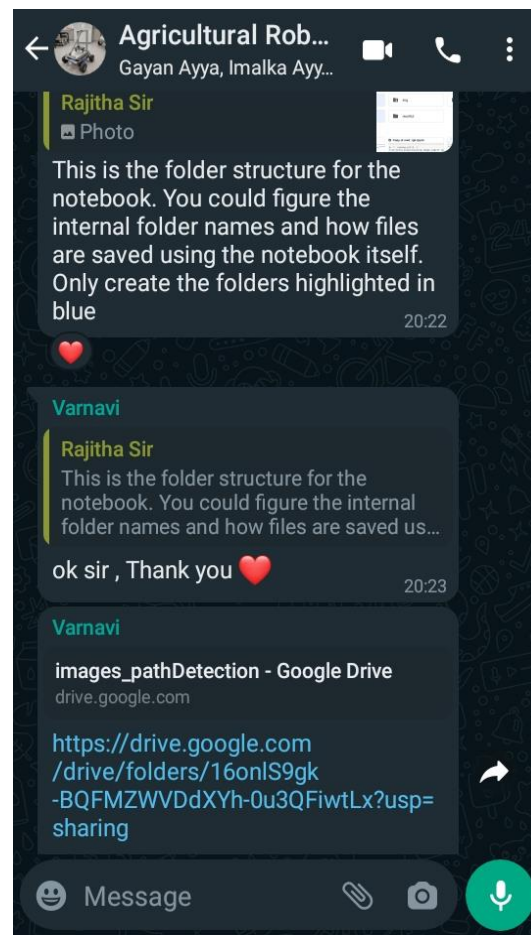
Gayatri Poornima

Varnavi Perera

Thulysa Premath...

You

Whatsapp conversations with the external supervisor.



5 MS TEAMS AND CALLS

General
Posts
Files
Tasks
+

Meet
▼

Meeting in "General" started

▼ Collapse all

Pi

Premathilake H. T. M it20265410 2/8 10:00 AM
Raspberry Pi

Gl

Gunawardana I.I.E. it19973470 2/8 10:03 AM
BTS7960 43A Motor Driver

Pi

Premathilake H. T. M it20265410 2/8 10:26 AM
proportional-integral-derivative

Hettiarachchi T. C. D. S. it19206806 2/8 10:51 AM
PhD Candidate at University of Lincoln

Bamunusinghe G.P. it20011970 2/8 10:52 AM
Water is sprayed to the tree root using a water spraying mechanism. Basically, physics governs everything. Using computer visualization, we must determine the location of the tree's root and its distance from the surface. After determining the speed of the moving object, the water must be accurately sprayed at the root by adjusting the angle of the water prayer nozzle. There are numerous variables in this mathematical parabolic water spryng system. Vehicle speed, road distance, water pressure, density, water spray pressure, and people make all these into play. Additionally, it...
[See more](#)
<https://onlinelibrary.wiley.com/doi/abs/10.1002/ps.2780330403>

General
Posts
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Tasks
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Meet
▼

divided particulate matter used as ...

www.sciencedirect.com

<https://www.sciencedirect.com/science/article/pii/S0048969721061805>

Are spray drift losses to agricultural roads more important for surface water contaminatio...

Spray drift is considered a major pesticide transport pathway to surface waters. Current research and legislation usually only considers direct spray ...

www.sciencedirect.com

<https://onlinelibrary.wiley.com/doi/full/10.1002/ps.1321>

<https://elibrary.asabe.org/abstract.asp?aid=2990>

<https://www.practicalmachinist.com/forum/threads/ot-physics-problem-regarding-water-spray-from-a-wheel.271709/>

OT Physics problem regarding water spray from a wheel

We are taught that in a closed system moving at a constant speed, the motion does not affect actions within the system. We do not feel any effect of the earth's velocity through space and occupant...


www.practicalmachinist.com

Pi

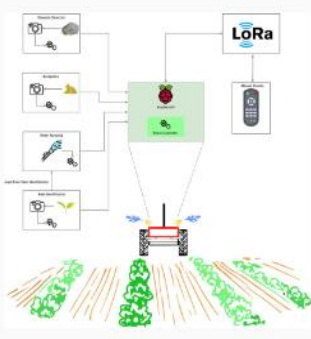
Perera R.V.Y. it20382476 2/8 11:25 AM


IT4010-TAF (2).docx


...



General
Posts
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Tasks
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Meet
▼





Perera P.V.Y. it20382476 2/8 1:17 PM



TA (1).docx


agri robot.pdf


Meeting ended: 3h 54m




Reply



General
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
task of accurately and punctually watering and fertilizing crops with manual labor is not feasible, and, in some situations, it has decreased productivity. Large-scale organizations require many human resources to maintain crops. Moreover, in some regions, due to socialization, only a few people are engaged as laborers. So, it has been critical for large-scale organizations to carry on their day-to-day activities. Due to the economic crisis in Sri Lanka, these owners have to spend a lot of financial resources on maintenance. Hence, gaining a considerable amount of profit is more challenging. Further, to overcome these disadvantages, automatic watering systems have been implemented, such as Center Pivot Irrigation, Drip Irrigation. In the Center Pivot Irrigation system, the required services and maintenance must be supplied at the correct time, or the system will break down. Frequent replacement of sprinkler nozzles is needed, which involves a high initial cost. Additionally, for some soil conditions like clayey soil, there is a chance that the wheel gets stuck. [1] When it comes to the Drip Irrigation system, implementing the system requires a high initial cost. Also, the short lifespan of pipes in this system needs frequent maintenance [2]. In the matter of fertilizing systems also have negative impacts on large-scale agri-fields. Considering all the facts, of systems mentioned above also do not fulfill the requirements, so a novel system should be suggested to increase productivity up to the expected level.

[See less](#)



Reply


Meeting in "General" ended: 5m 45s





Reply

Friday, March 3, 2023


General
Posts
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+


Meet
i
...


General started

2 replies from IT20382476 and IT19206806


Reply

Monday, March 27, 2023



Meeting in "Presentation" ended: 1m 14s

PI

Reply



New channel meeting ended: 2m 2s

PI PI


Attendance report

Click here to download attendance report

Reply



Practice Presentation ended: 50m 43s

PI GI PI PI

Reply

Sunday, May 14, 2023

New conversation


General
Posts
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Meet
v

+ New
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Copy link
Sync
Download
...
All Documents*
Filter
Info

... > General > Bamunusinghe G.P it20011970, Perera P.V.Y. it20382476, Premathilake H. T. M it20265410

v
File icon
Name
Modified
Modifie...
v
v
v
+ Add column

v
Modified By : Premathilake H. T. M it20265410 (1)

Folder icon
Recordings

March 3

Premathilake H. T. ...

v
Modified By : Perera P.V.Y. it20382476 (4)

File icon
agri robot.pdf

February 8

Perera P.V.Y. it2038...

File icon
IT4010-TAF (2).docx

February 8

Perera P.V.Y. it2038...

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TA (1).docx

February 8

Perera P.V.Y. it2038...

File icon
TA.docx

February 8

Perera P.V.Y. it2038...

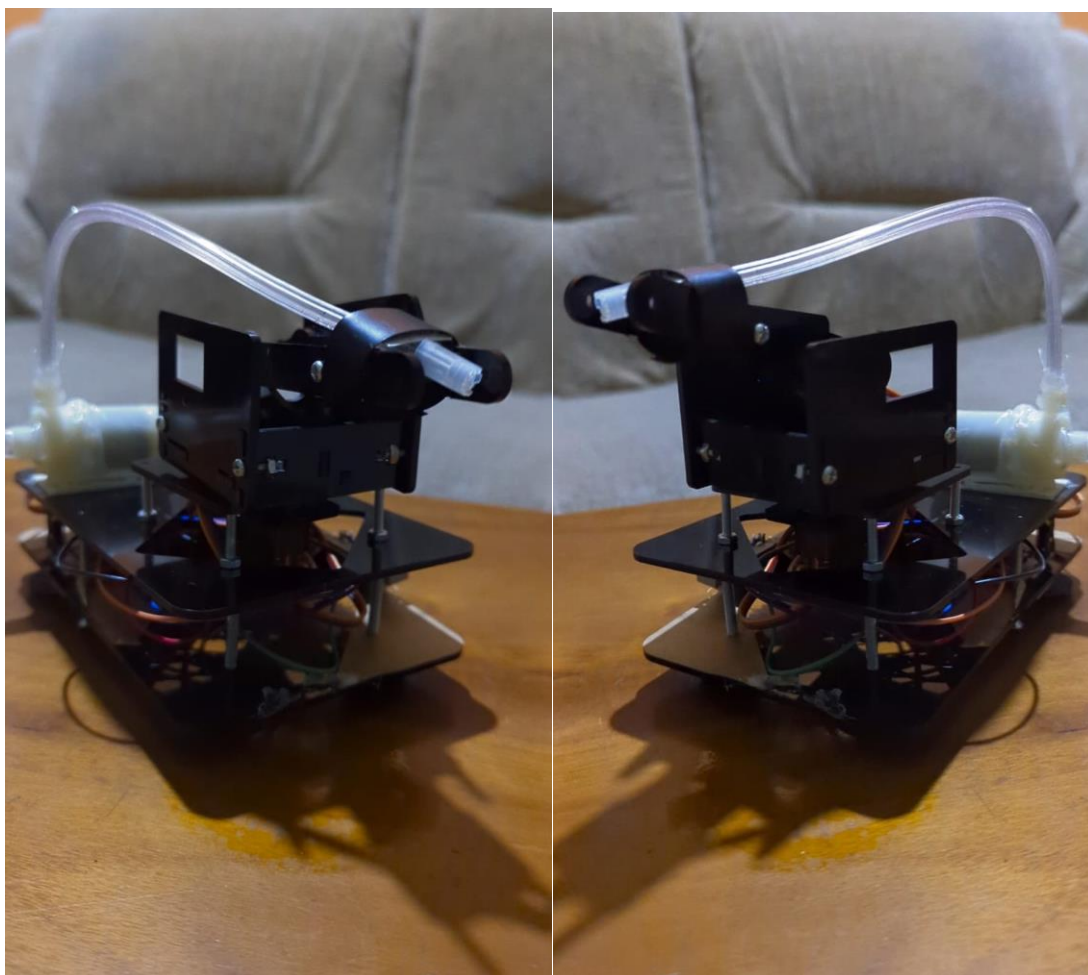
v
Modified By : Bamunusinghe G.P it20011970 (1)

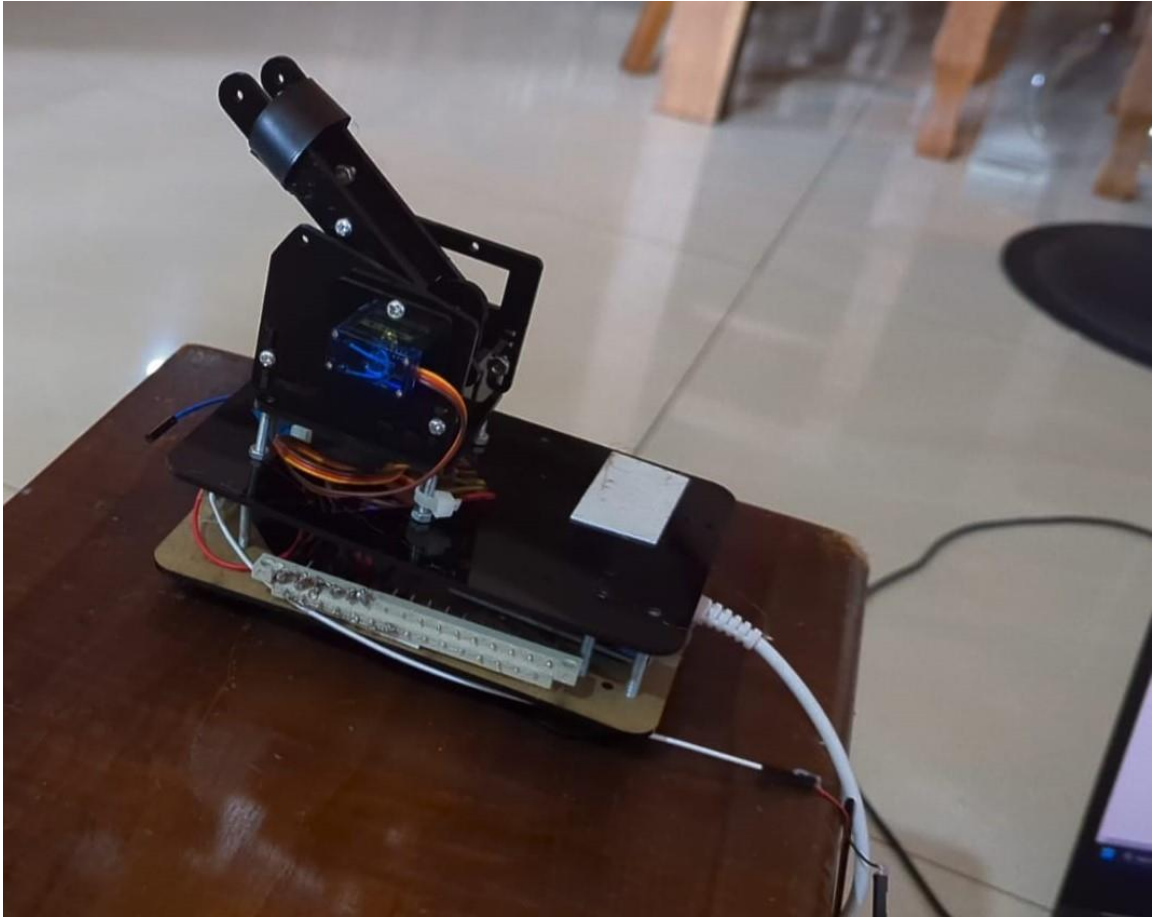
Folder icon
Submitted Docs

March 13

Bamunusinghe G.P...

6 DEVELOPED PROTOTYPE





This prototype, which has been completed to a level of 50%, can carry out the essential functions. Arm can move in accordance with the provided coordinates by collaborating with the web application. The arm is stabilized and can maintain its angle even when there are vibrations caused by the robot moving off-road.