

Project Updates: 15-03-2024

Sidharth Shanmugam

April 12, 2024

Introduction

- **Supervision Meetings:**

Consists of a listing in table format of the supervision meetings that have occurred since the last update, including dates, attendees, and a brief description of discussions and actionable items.

- **Actionable Items Recap:**

Consists of a listing in table format of the actionable items from the previous week, briefly discussing the progress made and pending tasks.

- **Additional Project Updates:**

Consists of updates that weren't 'actionable items' from the previous week, such as brief overviews of experiments conducted, data collected, and research findings.

- **Next Week's Agenda:**

Consists of a listing in table format of the actionable items to complete before the next weekly update, including task descriptions, rough timelines, and success metrics.

- **Comments & Concerns:**

Consists of a brief analysis of comments or observations about other aspects of the project, such as facilities, work environment, and any outside interest in the project. Furthermore, outlines any concerns about the project.

1 15-03-2024

1.1 Supervision Meetings

Date	Agenda	Actionable Items	Attendees
12-03-2024	<ul style="list-style-type: none">• Progress update on Pi camera recording script.	-	<ul style="list-style-type: none">• Sidharth Shanmugam• Paul Mitchell• Benjamin Henson

1.2 Actionable Items Recap

Actionable Item	Progress Report	Pending Tasks
Script to record footage from RPi and Pi GS camera.	<ul style="list-style-type: none">• The RPi implementation of MJPEG isn't zero lossy.• I have a better understanding of how the raw data is captured, this should help with parsing and playback.• Recording in raw format will be challenging due to insufficient boot drive write speeds.	<ul style="list-style-type: none">• I need to fine-tune the recording logic to use RAM for buffering instead of writing directly to the boot drive.• I need to write a view script that parses the raw data to play back the video recording.
Record test footage.	<ul style="list-style-type: none">• Unfortunately, the seal for making the housing watertight didn't set in time, so recording has been postponed.	<ul style="list-style-type: none">• Once the seal has cured, Ben will record the footage for me using the script.• I need to send him instructions on how to use the program.
Research real-time metrics and implement in backscatter cancellation software.	<ul style="list-style-type: none">• No progress on this due to the backlog of other tasks.	<ul style="list-style-type: none">• I will shift this for next week.

1.3 Additional Project Updates

Additional Update	Description
<i>No additional updates.</i>	-

1.4 Next Week's Agenda

Actionable Item	Description	Success Metrics	Target
Script to record footage from RPi and Pi GS camera.	<ul style="list-style-type: none">• Complete recording script.• Complete playback script.	<ul style="list-style-type: none">• Code pushed to its GitHub repository.	Friday
Record test footage	<ul style="list-style-type: none">• With the script to record footage completed, use ISA facilities to record test footage of bubbles.	<ul style="list-style-type: none">• Footage recorded.	Friday
Research real-time metrics and implement in backscatter cancellation software	<ul style="list-style-type: none">• Need to research ways to accurately record real-time metrics in Python.• Need to research which metrics are important for this project and must implement in software.	<ul style="list-style-type: none">• Code pushed to its GitHub repository (tagged V1)	Friday

1.5 Comments & Concerns

No comments or concerns at the moment.