Machine Vision-Based Anti-Backscatter Lighting System for Unmanned Underwater Vehicles

Sidharth Shanmugam MEng Project 2023/24

Project manager	Sidharth Shanmugam
Project dates	11 Mar 2024 - 3 Jun 2024
Completion	0%
Tasks	22
Resources	1

Tasks

Name	Begin date	End date	Notes
[TASK] Record test footage	11/03/2024	15/03/2024	
[TASK] Research real-time metrics and implement in V1	11/03/2024	15/03/2024	
[BUFFER] Handle backlog	18/03/2024	22/03/2024	
[MILESTONE] Software V1	25/03/2024	25/03/2024	
[BUFFER] Handle backlog/Easter break	25/03/2024	05/04/2024	
[TASK] Implement PREEMPT-RT	08/04/2024	12/04/2024	
[TASK] Implement snake method (soft. V2)	08/04/2024	12/04/2024	
[TASK] Project holes and mitigate parallax (soft. V2)	08/04/2024	12/04/2024	
[TASK] Research and implement Kalman filter (soft. V2)	08/04/2024	12/04/2024	
[BUFFER] Handle backlog/evaluate RT perfomance of V2	15/04/2024	19/04/2024	
[MILESTONE] Software V2	22/04/2024	22/04/2024	
[TASK] Prepare demonstration	22/04/2024	26/04/2024	
[DELIVERABLE] Demonstration	29/04/2024	29/04/2024	
[TASK] Research and implement non-ML predictions (soft. V3)	22/04/2024	26/04/2024	
[TASK] Research and implement ML predictions (soft. V3)	22/04/2024	26/04/2024	
[BUFFER] Handle backlog	29/04/2024	03/05/2024	
[MILESTONE] Software V3	06/05/2024	06/05/2024	
[TASK] Underwater testing	06/05/2024	10/05/2024	
[TASK] Evaluate V3 performance and write final report	06/05/2024	17/05/2024	
[DELIVERABLE] Final Report	20/05/2024	20/05/2024	
[TASK] Prepare presentation for viva	20/05/2024	31/05/2024	
[DELIVERABLE] Presentation/Viva	03/06/2024	03/06/2024	

Resources

Name	Default role
Sidharth Shanmugam	project manager

Gantt Chart

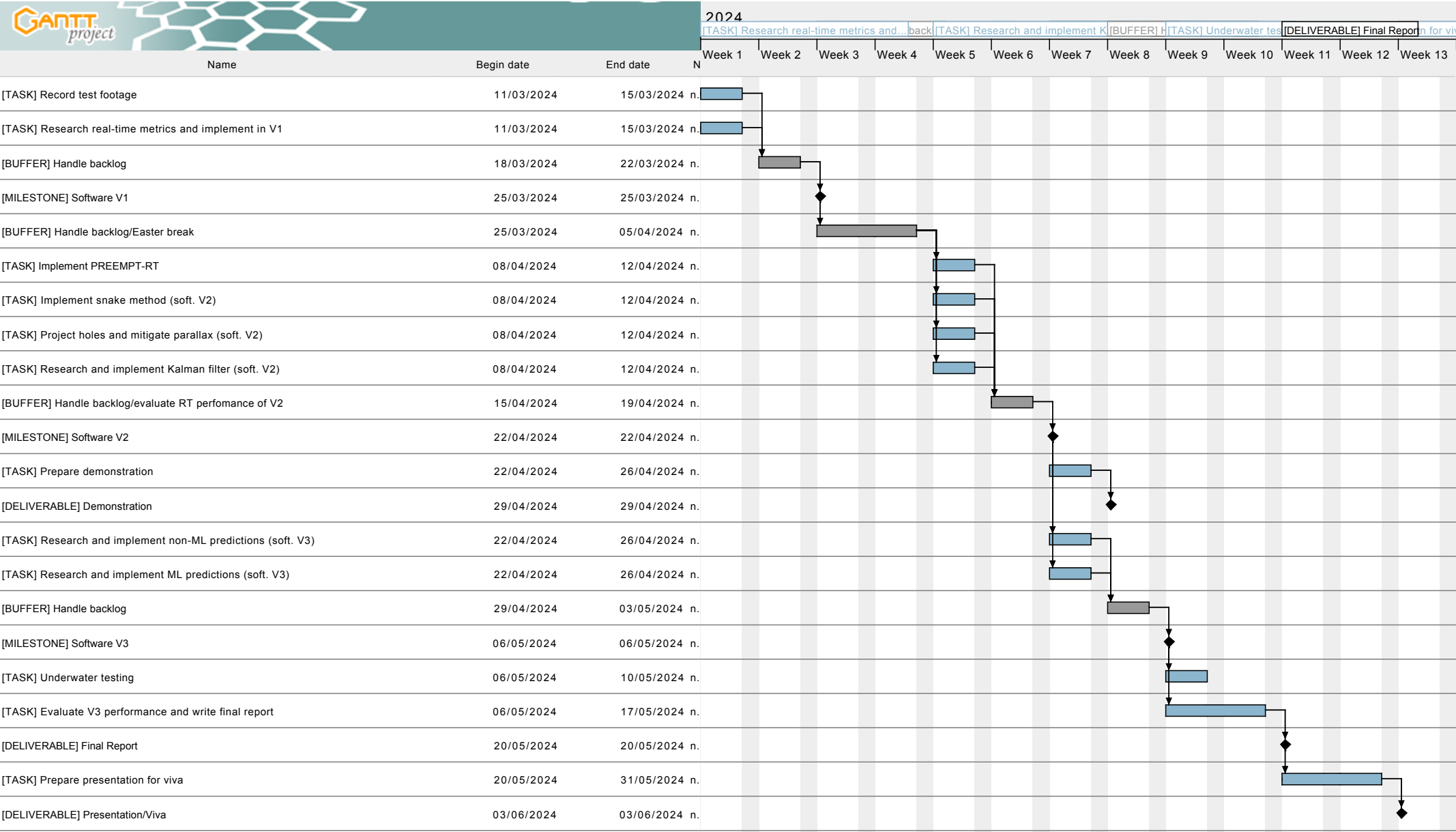| Name	Begin date	End date
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