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TITLE: PROJECT PLAN
PROJECT: MOBILE TOOL ASSISTANT
KEYWORDS: Planning, Mobile Tool Assistant, Project Management, Tasks, Deadline

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REVISION HISTORY

Version No.	Date	Originator	Summary of Changes
1	03-11-2025	C.D.N, A.R, A.M.R, E.D	Document created

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Task List

Table 1: Task List

Task ID	Task Name	Estimated Hours	Responsible Member	Precedence	Deadline
1	Detailed Design (Assignment)	20h	Chidubem	None	27 th Nov ,2025.
2	Parts Selection and Ordering	10h	Aditya	T1	1 st Dec ,2025.
3	UWB Tracking Module (User Tracking)	40h	Aneek	T2	21 st Jan, 2026.
4	Obstacle Detection	45h	Chidubem	T2	21 st Jan, 2026.
5	Motion Control Algorithm (Motor wiring)	21h	Ethan	T3, T4	30 th Jan, 2026
6	User Interface (and User Node Assembly)	20h	Aneek	T3	30 th Jan, 2026
7	Power Management System	24h	Aditya	T1	21 st Jan, 2026
8	System Assembly and Integration (Constructing Prototype)	30h	Chidubem	T5, T6, T7	15 th Feb, 2026
9	Chassis Design and Printing/Ordering	15h	Aditya	T8	15 th Feb, 2026
10	System Testing and Debugging	37h	Ethan	T9	28 th Feb, 2026
11	System Refining and Performance Improvement	16h	Aneek	T10	28 th Feb, 2026

Effort Histogram Chart

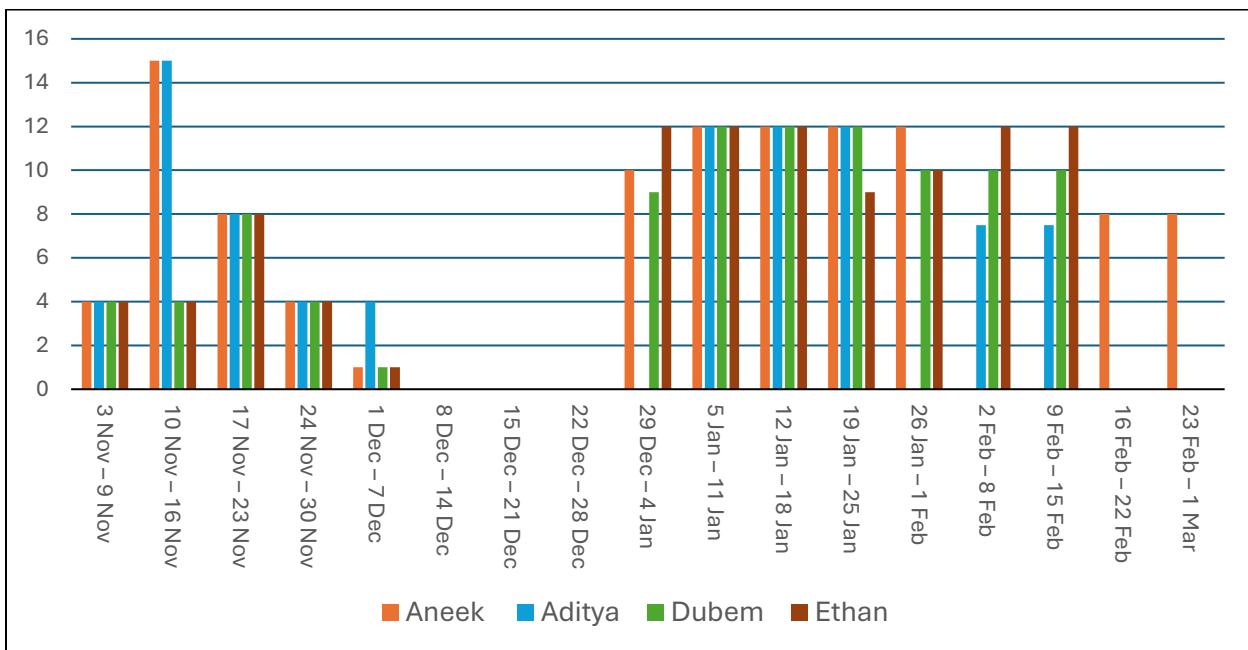


Figure 1: Effort Histogram

Cumulative Effort Chart

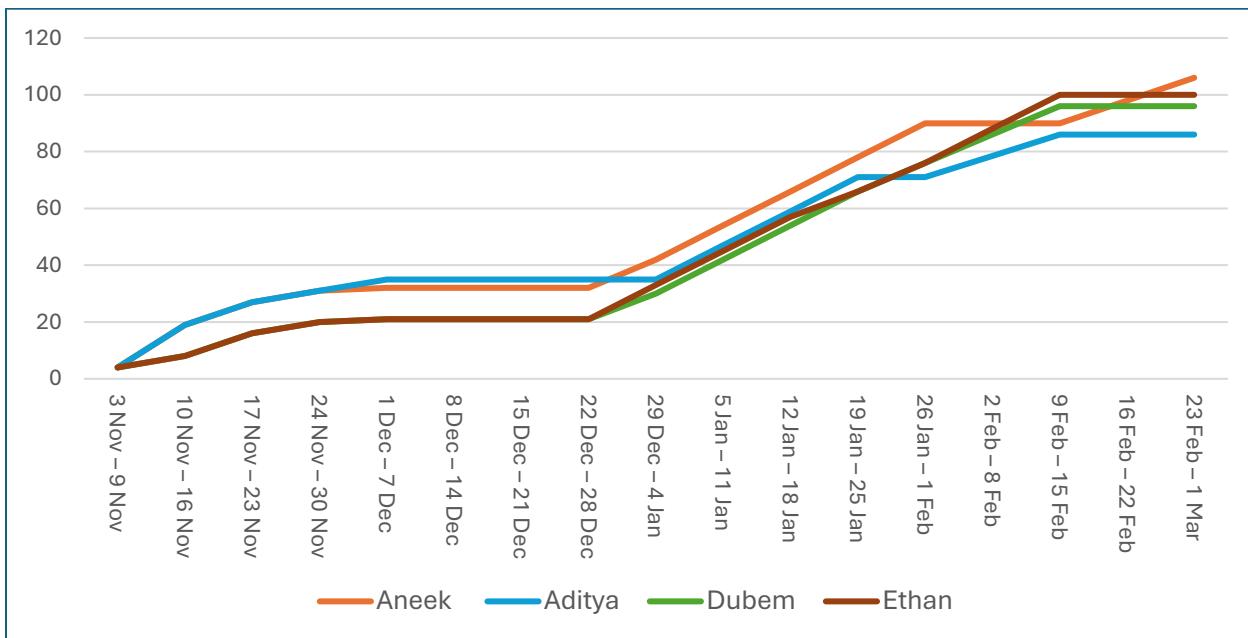


Figure 2: Cumulative Effort Chart

Material Budget

Table 2: Material Budget

Item	Quantity	Estimated Cost	Needed by
UWB Transceiver modules	3	135\$	Dec 10
Processing board	1	80\$	Dec 10
Ultrasonic sensor	4	25\$	Dec 10
Motor Driver	4	50\$	Dec 15
Rechargeable Battery Pack	1	45\$	Dec 18
PLA filament	2 kg	40\$	Jan 13
Wiring / Misc electronics	-	20\$	Dec 10

Appendix

(i) Milestone Schedule



Figure 3: Milestone Schedule Chart

(ii) Risk Assessment

Table 3: Risk Assessment

Risk	Probability	Impact	Mitigation Strategy
Component Delivery Delays	Medium	High	Identify critical components early, and order them in advance
Software Issues	High	High	Use version control, review code with the team
Defective Components	Low	High	Buy in surplus quantities and test all parts on arrival. Make sure to buy

			from reputable vendors.
Team Member Availability	Medium	Medium	Team members should be informed what other members are working on, in case a member is unavailable to work on a task.
System Integration Issues	High	High	Have lots of time for testing, maintain detailed documentation
Schedule Overruns	Medium	Medium	Prioritize critical tasks, and discuss team progress weekly
Mechanical Issues	Low	High	Inspect components, use durable materials