Texas A&M University at Qatar
Electrical and Computer Engineering Program
ECEN 403

MILESTONES AND VALIDATION PLAN

Project Title: Interactive Campus Guide Robot

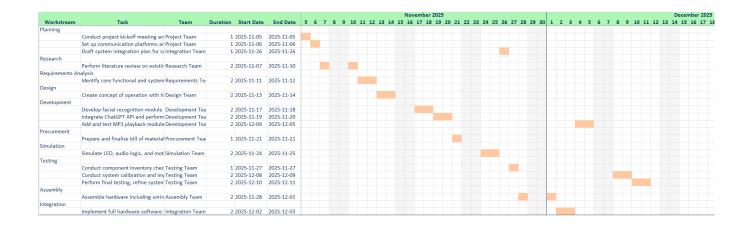**Semester:** Summer 2025
Mentor: Dr. Jim ji

Team members:
Noor AlMohammadi
Amna Al-Zeyara
Maryam Al-Obaidan

Submit date: 22/06/2025

SCHEDULE

Execution Plan for Interactive Campus Guide Robot – Fall 2025

Workstream	Task	Team	Duration	Start Date	End Date
Planning					
	Conduct project kickoff meeting an	Project Team	1	2025-11-05	2025-11-05
	Set up communication platforms ar	Project Team	1	2025-11-06	2025-11-06
	Draft system integration plan for so	Integration Team	1	2025-11-26	2025-11-26
Research					
	Perform literature review on existin	Research Team	2	2025-11-07	2025-11-10
Requirements Analysis					
	Identify core functional and system	Requirements Tea	2	2025-11-11	2025-11-12
Design					
	Create concept of operation with h	Design Team	2	2025-11-13	2025-11-14
Development					
	Develop facial recognition module	Development Tea	2	2025-11-17	2025-11-18
	Integrate ChatGPT API and perform	Development Tea	2	2025-11-19	2025-11-20
	Add and test MP3 playback module	Development Tea	2	2025-12-04	2025-12-05
Procurement					
	Prepare and finalize bill of material	Procurement Tea	1	2025-11-21	2025-11-21
Simulation					
	Simulate LED, audio logic, and mot	Simulation Team	2	2025-11-24	2025-11-25
Testing					
	Conduct component inventory chec	Testing Team	1	2025-11-27	2025-11-27
	Conduct system calibration and im	Testing Team	2	2025-12-08	2025-12-09
	Perform final testing, refine system	Testing Team	2	2025-12-10	2025-12-11
Assembly					
	Assemble hardware including wirin	Assembly Team	2	2025-11-28	2025-12-01
Integration					
	Implement full hardware-software i	Integration Team	2	2025-12-02	2025-12-03

VALIDATION PLAN

Validation Plan for Interactive Campus Guide Robot Summer 2025 - Fall 2025

Task	Deadline (week)	Current Status
Project Kickoff & Role Assignment	1 (first semester)	Completed
Literature Review	2	Completed
Define Functional & System Requirements	3	Completed
Concept of Operation (ConOps)	4	Completed
Software: Facial Recognition Module	5,6	Completed
GPT API Integration & Logic Testing	7,8	On schedule/ In progress
Prepare Bill of Materials (BoM)	9	On schedule/ In progress
Simulation: LED, Audio Logic & Motion Flow	10	On schedule/ In progress
System Integration Plan	11	On schedule/ In progress
Progress Report & Presentation	12,13	On schedule/ In progress
Component Inventory Check	1(second semester)	On schedule/ In progress
Hardware Assembly (Wiring + Mounting)	2,3	On schedule/ In progress
Full Hardware-Software Integration	4,5	On schedule/ In progress
Add MP3 Playback Module & Audio Amplifier	6	On schedule/ In progress
Motor Behavior Implementation (Servo)	7	On schedule/ In progress
System Calibration & Error Handling	8,9	On schedule/ In progress
Real-World Testing & Refinement	10	On schedule/ In progress
Final Demo Preparation	11	On schedule/ In progress