Phase	Task	Description	# Start Week	# End Week	⊖ Status	Notes
Planning & Research	Define Requirements	Finalize hardware & features	1	2	In Progress	Requirements document
Planning & Research	Order Components	Purchase electronic and mechanical parts	1	2	Not Started	-
Planning & Research	Set Up Development Environment	Install Raspberry Pi OS libraries and 3D modeling to	1	2	Not Started	-
Mechanical Design & Prototyping	Chassis Design & Fabrication	Design and 3D print a modular chassis	3	6	Not Started	-
Mechanical Design & Prototyping	Motor Integration	Mount and test motors with L298N driver	3	6	Not Started	-
Electronics & Sensor Integration	Power System Setup	Integrate LiPo battery & voltage regulators	7	10	Not Started	-
Electronics & Sensor Integration	Sensor Integration	Implement IR proximity line tracking IMU and light s	7	10	Not Started	-
Electronics & Sensor Integration	User Feedback Components	Program OLED display LEDs buzzer and buttons	7	10	Not Started	-
Software & Wireless Communication	Path-Execution Algorithm	Develop movement processing and logic	11	14	Not Started	-
Software & Wireless Communication	Wireless Communication	Enable WiFi-based remote control	11	14	Not Started	-
Software & Wireless Communication	Basic Control App	Develop initial web/mobile interface	11	14	Not Started	-
Application & Final Integration	Software Refinements	Improve error handling and sensor fusion	15	18	Not Started	
Application & Final Integration	GUI Enhancement	Upgrade UI for user-friendly programming	15	18	Not Started	
Testing & Optimization	Full System Testing	Test real-world use cases and optimize movement	19	22	Not Started	-
Testing & Optimization	Performance Improvements	Enhance battery efficiency and response time	19	22	Not Started	-
Testing & Optimization	Final Documentation	Create guides diagrams and educational exercises	19	22	Not Started	-
Final Adjustments & Deployment	Final Iterations	Apply refinements based on user feedback	23	24	Not Started	-
Final Adjustments & Deployment	Demo & Release	Prepare presentation demo and next steps	23	24	Not Started	-