Design of a line-following obstacle-avoiding robot car that sends data to Firebase

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Abstract: In the context of rapidly developing information technology, the use of self-driving vehicles to perform tasks such as pathfinding, obstacle avoidance, and information transmission has become important. This topic focuses on designing an automatic robot system capable of identifying the surrounding environment and sending data to Firebase to support effective management operations. Through theoretical and experimental research, the topic aims to contribute useful technical solutions to the field of self-driving vehicle technology and wireless communication.

Keywords: Robot car, pathfinding, obstacle avoidance, Firebase, information technology