# Design of an automatic lane-following vehicle and remote control via infrared waves

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**Abstract:** In the context of modern technological development, designing autonomous vehicles and remote control capabilities via infrared waves is an increasingly urgent need. This project aims to build a self-driving system with the ability to accurately track and control vehicles remotely. Through theoretical and experimental research, the project combines testing and simulation methods to create an effective solution. The expected results provide a foundation for the development of autonomous driving technology in various application fields, from agriculture to public transportation.

**Keywords:** automatic car, remote control, infrared wave, self-driving system, control engineering