

Autonomous Vehicle via Raspberry PI

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Abstract: *The Project pursuits to construct a monocular imaginative and prescient independent vehicle prototype the use of Raspberry Pi as a processing chip. A Raspberry Pi camera is employed to provide crucial real-time information from the physical world to the vehicle. This enables the vehicle to efficiently and intelligently reach its designated destination, thereby mitigating the risk of human errors. By integrating advanced algorithms such as lane detection and object detection, this technology holds the potential to bring substantial benefits to the automotive industry. It has the capacity to reduce the cognitive load on drivers, alleviating the mental strain while also reducing accidents resulting from reckless or non-compliant driving behaviors.*

Keywords: Autonomous Car, Raspberry Pi, Object Detection, Ultrasonic Sensor, IR Sensor

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