

# Automated Vehicle in CARLA

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**Abstract:** *The advent of automated driving technologies has brought about a paradigm shift in the automotive industry. The development and evaluation of automated vehicles (AVs) play a crucial role in shaping the future of transportation. To ensure the safe and efficient deployment of autonomous vehicles on public roads, rigorous testing and validation processes are essential. However, conducting real-world tests can be costly, time-consuming, and pose potential risks. To address these challenges, simulation environments such as the CARLA (Car Learning to Act) simulator have emerged as valuable tools for testing automated vehicles. This paper presents scenarios conducted within the CARLA simulator, focusing on critical aspects of automated driving, such as perception, decision-making, and control. The results obtained from the CARLA simulator experiments provide valuable insights into the strengths and limitations of the tested automated driving systems.*

**Keywords:** Automated vehicle, CARLA, Simulator, Automated driving

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