In an era marked by rapid urbanization and the unprecedented growth of e-commerce, the last mile has emerged as a critical bottleneck within the supply chain

Cities worldwide are grappling with the consequences of delayed deliveries, congested roadways, safety concerns, and the pressing need to curb CO2 emissions. It is against this backdrop that our project, aptly titled "Future Last Mile Delivery," takes center stage.

Our project revolves around the concept of autonomous mobility, a groundbreaking paradigm that holds the potential to reshape the landscape of urban transportation. By harnessing cutting-edge technologies, we aim to create a delivery ecosystem that not only streamlines operations but also prioritizes sustainability. Autonomous vehicles represent more than just a mode of transportation; they symbolize efficiency, reliability, and a commitment to a greener, more environmentally conscious future.

Through collaboration, innovation, and a shared commitment to sustainability, we can pave the way for a delivery revolution that transcends the challenges of today and propels us into a more efficient and eco-friendly tomorrow.

Motivation behind the project:

● Efficiency in Last Mile Delivery: In many cases, the supply chain's final mile delivery is

the most costly and time-consuming link. Solutions for autonomous mobility can

streamline this procedure by cutting expenses, delivery times, and transportation's

negative environmental effects.

● Traffic Congestion: As e-commerce and delivery services have grown, urban regions are

experiencing an increase in traffic congestion.

● Environmental Sustainability: Reducing last-mile delivery's carbon footprint is critical to

the fight against climate change. A cleaner, more sustainable city can be achieved by

designing autonomous electric vehicles that use less energy and produce fewer

greenhouse emissions.

● Safety: The number of accidents brought on by human error may be decreased by

autonomous cars

Increased Delivery Delays: Traffic congestion leads to slower and less predictable transportation times, resulting in delays in the final mile of the supply chain.

Higher Operational Costs: Longer travel times and unpredictable traffic patterns contribute to increased operational costs, including fuel expenses and labor hours, affecting the overall efficiency of the logistics chain.

Reduced Customer Satisfaction: Extended delivery times due to traffic congestion can lead to customer dissatisfaction and a decline in service quality, impacting the reputation of delivery services and the companies they represent.

Environmental Impact: Prolonged periods of idling in traffic contribute to higher fuel consumption and increased emissions, exacerbating the carbon footprint of the logistics chain and negatively impacting environmental sustainability.

Compromised Safety: Traffic congestion increases the risk of accidents, not only causing potential harm to delivery operators but also posing a threat to other road users. Autonomous last-mile delivery can address these safety concerns by minimizing human error in congested traffic scenarios.