

Traffic Lights Management System



Problem Analysis Solution

Prepared for
Prof. Awny Sayed

Prepared by
-Meshal Okairy 2237836
-Muayad Bajandooh 2237970
-Omar Bakhedar 237708

Definition & Solution

Managing traffic lights can be a real headache. You've probably been stuck at a red light while no one's coming from the other side, right? Well, here's the fix, we can make traffic lights way smarter using intelligent cameras and AI.

The problem is that regular traffic lights follow a set schedule, whether there's lots of traffic or hardly any. The current solution is a traffic cop who works under the sun and switches manually between the traffic lights, but this is time and cost-consuming also inaccurate. With AI and cameras, we can change that. Cameras watch the roads and tell the AI what's happening in real time. The AI then decides when to make the lights turn green or red.

Imagine this, if the cameras see plenty of cars waiting at a red light, they can tell the AI to turn the light green sooner. But when there aren't many cars around, the AI can keep the light red for a shorter time.

This means less time stuck in traffic, fewer cars idling and polluting the air, and quicker trips. It's a clever solution to a common problem that can make our daily commute a lot smoother and greener.