# Wireless Charging Platform for Electric Vehicles

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**Abstract:** *The popularity of electric vehicles (EVs) is steadily increasing globally in the current generation. Traditional charging stations, however, face several challenges, including long charging times, wear and tear due to physical connectors, and a lack of smart management systems for monitoring. These issues often inconvenience users and delay the broader adoption of EVs.*

*The Wireless Charging platform for Electric Vehicles introduces a seamless and efficient charging system that addresses various challenges. Wireless charging eliminates the need for physical plugs or connectors, reducing wear and tear. The system uses IoT integration for real-time monitoring via a user-friendly mobile application and enhances safety by displaying temperature and humidity levels to detect rapid changes. Additionally, it utilizes solar energy as a natural resource, contributing to power savings and sustainability. By overcoming current challenges, this solution fosters a more accessible and eco-friendlier EV ecosystem, generating new opportunities for the expansion of electric mobility.*

**Keywords**: Arduino UNO, ESP8266, IR Sensor, Transmitter &Receiver Coil, DTH11, Voltage Sensor, LCD+I2C