# Smart Design Controller for M2/M3 Category Electric Vehicle

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**Abstract**: *This article describes how to design a complete e-bike control system using the Arduino UNO microcomputer. This circuit is mainly used to control brushless DC motors. Normally, when designing a power supply inverting circuit, you would check the voltage on a resistor to sense the current and send that data to the CPU to complete the current control system. However, when the controller is used with high power levels, the high current causes power loss. A remedy for this problem is to sense the current based on the resistance of the MOSFET tube and feed the signal into a differential amplifier to make the signal accurate. Finally, let's make the controller usable with the aluminum base board.*

*The development of vehicle control technology EV electronic control unit (ECU) and the key to raising the level of EV design determines the direction of optimization control of vehicle performance. Vehicle control is analyzed by building the control system overall structure of the control system of distributed pure electric vehicles, in order to realize the rational coordination of the vehicle within the integrated control system based on modular thinking. Control Network Design Operating Principles and Functional*

*Realization as a Pure Electric Vehicle The control system provides a theoretical basis for performance evaluation. for performance evaluation.*

**Keywords:** IOT, Smart Device, Smart Monitoring, Social Services, Web Application, Electric vehicles, Vehicle control system, Vehicle controller

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