

**Siti Fauziah Toha
Iskandar Al-Thani Mahmood
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**MECHATRONICS
ENGINEERING
PROJECTS**

Theory and Applications

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MECHATRONICS ENGINEERING PROJECTS: THEORY AND APPLICATIONS

Editors

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ABSTRACT

This chapter will present an approach to complement the current car security system by being able to send a short message text to the affected car owner. Although most cars nowadays are fitted with a car security system, it has some weaknesses. Despite the fact that a siren goes out when there is an intrusion, the owner may not be able to hear the siren because they might not be near the car, or they may be inside a building. Through this complementary security system however, the owner of the car that has been broken into, can immediately be informed about the intrusion via short message service (SMS). The complementary system uses the GSM Modem and the cellular phone. A programmable logic controller (PLC) console is utilized as the main controller. The input and the output peripheral devices are interfaced to the PLC. Three limit switches represent the inputs and will act as the door sensor, shock sensor and tilt sensor respectively. The primary output is the global system mobile (GSM) Modem, as it has the message sending capability. The Immobilizer system is also simulated in this project whereby the car will be immobilized once it is armed. This project is not only complementary, but also an improvement to existing car security systems as the improved version will most probably foil an attempt to steal a car.

Keywords: Short message service, programmable logic controller, global system mobile