

Intelligent Embedded Systems - Report

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January 29, 2014

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Conceptual Design

I am going to make a intelligent unlocker. A motor can be controlled to turn 180 degrees clockwise by raspberry pi once a 3G modem receives a message which contains a correct password. The password can be modified by a specific command through text message.

This intelligent system helps when people want to open the door but suddenly they find that they lose the key. They can simple send the password to a certain number and let raspberry pi to decide whether or not the lock should be unlocked. This system is safe since the correct password only works with a matched sender, rest of people cannot unlock the door with other phone numbers even they hold the correct password.

This is an individual project. I plan to have all hardware ready in three days and the implementation will take around two weeks. In this case, the whole project can be done before 18th of February.

Requirements and Design

Implementation

Evaluation