IoT Based Smart Thief Detector

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Abstract

In these days theft cases became very common, especially in big cities, so it has been necessarily to invent something to keep our homes safety against the thefts. Now we are developing an IoT based **physical** device that warn the owner of home that there is unknown person enter the home by sending to him a message in telegram includes a warning.

Electronics

To implement this project, we must use a microcontroller and module to provide the internet connection like WIFI module or SIM card module. We choice ESP32 because it is a microcontroller and include inside it a WIFI module, so we can connect to the internet without buy an external module.

If someone opens the door, the magnetic field of magnet that we set on the door will be near the Reed Magnetic Switch and the switch will be closed, then the GPIO pin will be activated. While the pin is active (3.3 volt) the program will send a warning message to the owner.

Software

To programming ESP32 we can use an embedded C language or MicroPython language, we have preferred to use MicroPython because it is easier to write program especially that’s include IoTs like sending to Telegram. MicroPython includes prepared before libraries that will help us in IoT programming, so we don’t have to write a very long code.

References

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