

Home Security Solution using Machine Learning and IoT

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Abstract: *The project is a smart home security system, increasingly needed today. It integrates IoT and machine learning to do real-time intrusion detection (when someone enters your home without permission) and face recognition (to identify the person who just entered your home).*

The system has a roaming eye, so to speak, that uses an ultrasonic sensor to detect motion in the vicinity. When it "sees" motion, it tells a laptop to turn on and start capturing live video. The system uses OpenCV ("Open-Source Computer Vision Library"), which is way more than just a library, and the "face_recognition" Python library, which sits on top of OpenCV.

This home security system is an affordable and effective way to enhance surveillance without enhancing the cost. This system is ideal for places such as homes and offices that require automated authentication and only want to pay a small amount in order to solve an urgent problem: false alarms

Keywords: machine learning

