

CSE 316 July 2022 - Project Proposal

Subsection	A1																													
Project Name	Secure Home																													
Team Members	1905013, 1905014, 1905019, 1905024, 1905026																													
Motivation	<ul style="list-style-type: none"> <li>We want to create a safe and secure home.</li> <li>Our system can help you protect your valuables from burglars and other types of theft.</li> <li>The likeliness of a break-ins will decrease.</li> <li>Increases property value to a potential buyer.</li> </ul>																													
Description	<p>We will create a home security system. The features are as follows-</p> <ul style="list-style-type: none"> <li>There will be a keypad to enter the pin. If there are 3 successive unsuccessful attempts, an alarm will go off.</li> <li>If one tries to enter the house without entering correct pin, the touch sensors on the handle will detect it. An alarm will go off and all windows will be closed. An alert will be sent to the owner's phone. The sensors will be disabled after entering the correct pattern.</li> <li>There will be a safe room and a panic button inside the house. When panic button is pressed, the house door and all windows will be automatically closed, except for the safe room. The owner will hide inside the safe room and manually lock the door.</li> <li>There will be another button inside the safe room. When it is deemed safe to come out, or let someone in from the outside, pressing the button will open the closed house door and the windows.</li> </ul>																													
Computing unit	Arduino Uno																													
Instruments (models and units haven't been decided yet)	<table border="1"> <thead> <tr> <th>Name</th> <th>Model Number</th> <th>Units</th> </tr> </thead> <tbody> <tr> <td>Microcontroller</td> <td>Arduino Uno</td> <td>1</td> </tr> <tr> <td>Bluetooth Module</td> <td></td> <td></td> </tr> <tr> <td>Motion sensor</td> <td></td> <td></td> </tr> <tr> <td>Touch sensor</td> <td></td> <td></td> </tr> <tr> <td>Keypad</td> <td></td> <td></td> </tr> <tr> <td>Alarm</td> <td></td> <td></td> </tr> <tr> <td>Buttons</td> <td></td> <td></td> </tr> <tr> <td>Breadboard</td> <td></td> <td></td> </tr> </tbody> </table>			Name	Model Number	Units	Microcontroller	Arduino Uno	1	Bluetooth Module			Motion sensor			Touch sensor			Keypad			Alarm			Buttons			Breadboard		
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How?

why?

SD card - (log).

GSM - SIM900

WIFI - ESP32

Arduino Nano.