USE CASE description

|  |  |
| --- | --- |
| Use case name | Call police |
| Actors | Police, Alarm |
| Use case description | When the sensor detects ant abnormal thing it arise the alarm which call the police |
| precondition | The alarm is switched off and the police is passive |
| postcondition | Alarm system is raised and police is called |
| Normal flow | Sensor sends to alarm to wake it up then the alarm is call the police |
| Alternative flow | If the alarm failed to call police, it try to connect with the user |
| Nonfunctional | The alarm must report the police within 5 second |
| Extend points | Send the voice recorded |

|  |  |
| --- | --- |
| Use case name | Report alarm locatin |
| Actors | Location, police |
| Use case description | The alarm is sending the location to police |
| precondition | System saves his location to use in any time |
| postcondition | System send location to police |
| Normal flow | When the alarm is a rise the alarm system calls police then send location to |
| Alternative flow | The system fail to send location it try to connect to user |
| Extend points | Voice synthesis |

|  |  |
| --- | --- |
| Use case name |  |
| Actors |  |
| Use case description |  |
| precondition |  |
| postcondition |  |
| Normal flow |  |
| Alternative flow |  |
| Extend points |  |

|  |  |
| --- | --- |
| Use case name | Switch off lights |
| Actors | Alarm |
| Use case description | When alarm system is a raised the light should switch on |
| precondition | Light should be turned on |
| postcondition | Light should be turned off |
| Normal flow | The alarm should turn off the lights |
| Alternative flow | System never can turn off the lights |
| Extend points |  |

|  |  |
| --- | --- |
| Use case name | Set off audible alarm |
| Actors | Alarm, sound system |
| Use case description | The Alarm turn on the voice to make the niobous detect that there is thief |
| precondition | Sound is stored to be ready for ant event |
| postcondition | Alarm turns the sound on |
| Normal flow | If alarm system is a raised the alarm should turn on the sound |
| Alternative flow | If alarm system can’t a raised the alarm should  Connect to the |
| Extend points |  |

|  |  |
| --- | --- |
| Use case name | Detect |
| Actors | sensor |
| Use case description | The sensor detects any abnormal |
| precondition | Sensor is running and reading the reads |
| postcondition | Sensor raises the alarm system |
| Normal flow | Sensor detects an interrupt then it arise the alarm system |
| Alternative flow | Sensor breaks down and can’t detect any abnormalities |
| Extend points | Safe, detects intruder |

|  |  |
| --- | --- |
| Use case name | Detect intruder |
| Actors | Sensors, intruders |
| Use case description | The sensor detects the intruders then a raise the system |
| precondition | The sensor is ready to detect any abnormal |
| postcondition | Sensor send status to alarm system to arise it |
| Normal flow | The sensor detects the intruders then a raise the system |
| Alternative flow | Sensor is broken down and can’t detect any intruders |
| Extend points | Call police, turn on lights, switch in the audible |

|  |  |
| --- | --- |
| Use case name | Detect alarm power supply |
| Actors | Power supply, sensors |
| Use case description | The sensor detect defect in power supply them backs up the battery and start test |
| precondition | Sensor is testing the power supply permeant |
| postcondition | If the power supply drop down between 10to20% then start backup the battery  If the power supply drops down more than 20% then call police and call tech |
| Normal flow | If the power supply drops down between 10to20% then start backup the battery  If the power supply drops down more than 20% then call police and call tech |
| Alternative flow | The system drop down immediately and the sensor can’t detect the fast change |
| Extend points | Power supply failure , intruder interrupt |

|  |  |
| --- | --- |
| Use case name | Alarm araise |
| Actors | Sensor, Alarm |
| Use case description | When the sensor detect change in the power supply level |
| precondition | Sensor doesn’t a raise the alarm |
| postcondition | Sensor a raises the alarm |
| Normal flow | Sensor detects change in the power supply then it wakes up the alarm |
| Alternative flow | Alarm dose’s response to the senor |
| Extend points | Reports, turn on lights |

|  |  |
| --- | --- |
| Use case name | Power supply failure |
| Actors | Battery, voltage sensor |
| Use case description | Power supply is drop more than normal and can’t wake up the system |
| precondition | Voltage detector should continuously manage the power supply level |
| postcondition | Power supply failure then the alarm is wake up and call the tech |
| Normal flow | When power supply failure the alarm system is a raised and arise the battery then call the technical |
| Alternative flow | Power supply failure and alarm can’t wake up the alternative battery |
| Extend points | Call technical |

|  |  |
| --- | --- |
| Use case name | Clear\_alarm\_ command |
| Actors | User, alarm |
| Use case description | Users want to stop the activities of the system |
| precondition | System run normally, alarm is switched on, lights is switched on |
| postcondition | alarm is switched off; lights is switched off |
| Normal flow | Users enter the command the order to close the system |
| Alternative flow | System doesn’t response to the command of the user |
| Extend points | Switch off lights, switch off alarm |

]

|  |  |
| --- | --- |
| Use case name | safe |
| Actors | Sensor |
| Use case description | The sensors don’t detect any abnormalities in the system |
| precondition | Sensors continuously measure their tasks |
| postcondition | Sensors continuously measure their tasks |
| Normal flow | Sensors continuously measure their tasks |
| Alternative flow | Sensor failure to read and always repot normal status |
| Extend points |  |

|  |  |
| --- | --- |
| Use case name | Battery back up |
| Actors | battery |
| Use case description | If power supply failure the battery is backed up |
| precondition | Battery is charged and ready to be backed up |
| postcondition | Battey is backed up and run the system instead of the power supply |
| Normal flow | Power supply failure arise the alarm then alarm makes battery to be used |
| Alternative flow | Battery is damaged and can’t run the system |
| Extend points |  |
| Nonfunctional | The battery must be waked up within 30 second by alarm |