

**Cyprus International University**

Faculty of engineering

Department of Software Engineering

2021-2022 Spring semester

**Masked Face Recognition System (MFR)**

**Activity List**

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V1

**Table of content**

**ACTIVITY LIST**

1. STATEMENT OF PURPOSE ……………................................................... 3
2. ACTIVITY DEFINITION …………….......................................................... 3
3. DEPENDENCIES ……………................................................................... 4
4. ACTIVITY DURATION ……………........................................................... 5
5. RESOURCES ASSIGNMENT …………….................................................. 5

**1.0 Statement of purpose**

The purpose of this document is to record all activities that are included in the schedule for Masked Face Recognition System (MFR). This document provides information about each activity including its name, an identifier, its duration, any predecessors and successors, resource requirements, any leads or lags, who’s been responsible for the task, as well as whether the activity is a milestone.



**2.0 Activity Definition**

|  |  |  |
| --- | --- | --- |
| **Identifier** | **Name** | **Description** |
| 1 | Determining the idea | Determine the general idea of the project |
| 2 | Research | We need to search in books, scientific research and articles on previous similar projects to understand the working mechanism of the system. |
| 3 | System Analyzing | After understanding the working mechanism of the system, we will identify all the strengths and weaknesses of each work mechanism and try to integrate work mechanisms to raise the strengths and reduce weaknesses. |
| 4 | Order Hardware Parts | Determine the seller from whom we will buy the parts then order the hardware parts. |
| 5 | Database creation | Create database contains all of the authenticated user’s information such as their faces, masked faces, RF cards, etc... |
| 6 | RFID Hardware | Connect the RFID hardware parts. |
| 7 | RFID Programming | Coding the RFID reader and connect it with the dataset. |
| 8 | RFID Testing | Testing the RFID system after coding and make sure only authenticated users are able to use the system |
| 9 | Face Recognition Hardware | Connect the face recognition hardware parts such as the camera. |
| 10 | Face Recognition Programming | Coding the normal face recognition side and connect it with the dataset. |
| 11 | Masked Face Recognition Programming | Coding the masked face recognition side and connect it with the dataset. |
| 12 | Masked Face Recognition Testing | Testing the masked face recognition side to make sure it’s working correctly and the possibility of wrong identification is under the specification. |
| 13 | Testing the hardware & software | Testing the system at all, hardware testing and software testing. |
| 14 | Testing the system in many scenarios | Testing the system on our class mates as one of the scenarios to make sure the system is working correctly. |
| 15 | Consensus protocol programming | Preparing the consensus protocol that the system will use to validate the identity of users to increase the security of the system |
| 16 | Kadena smart contract programming | Coding the smart contract on KADENA Blockchain that will be used to validate the identity of users. |
| 17 | Kadena smart contract testing | Testing the smart contract and send it to a specialized auditing company (Certik) to ensure that there are no errors that allow the smart contract to be hacked |
| 18 | System test with smart contract | Testing the system at all with the smart contract and the consensus protocol |
| 19 | Deployment | Deployment |

**4.0 Activity Duration**

1. Estimated Work Hours Required: 15 - 20 hours weekly.
2. Start Date (MM/DD/YYYY): April / 2 / 2022
3. Finish Date (MM/DD/YYYY): May / 18 / 2022
4. Leads and Lags: Kadena bridge.



**5.0 Resource** **Assignment**

|  |  |  |
| --- | --- | --- |
| Resource | Unit\_Cost/Salary | Cost |
| * RFID & Sensors Hardware   Arduino Uno Rev3  RF Reader  Ethernet Ports (ENC28J60)  Breadboard \*2  Jumper cables (MM/FM)  Battery 9V & Battery Cable  RF card  RF NFC keychain  RF NFC ticket  Red lids & Green lids  Microchip ports Extenders  Power Cable  Resistors Kit  Welding Gun & Soldering Tin  Gas Sensor  Double Faced Pertinax  Multimeter | 880 TL  31 TL  107 TL  21 TL + 21 TL  19 TL + 19 TL  9.5 + 2 TL  4.55 TL  4.55 TL  4.55 TL  3.5 +3.5 TL  5.25 \* 2 TL  34.2 TL  56.3 TL  103 + 51 TL  28.4 TL  33 TL  75.7 TL | Total Cost = 1483.75 TL |
| Face Recognition Hardware:  Arduino Uno Rev3  Red lids  Green lids  Ethernet Ports (ENC28J60)  Breadboard  Jumper cables (MM/FM)  Battery 9V  Battery Cable  Camera  Distance Sensor (HC-SR04) | 880 TL  3.5 TL  3.5 TL  107.5 TL  21 TL  19 TL +19 TL  9.5 TL  2 TL  157.5 TL  22 TL | Total Cost = 1244.5 TL |