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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ACTIVITY LIST

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

4.1 Estimated Work Hours Required: 15 - 20 hours weekly.

4.2 Start Date (MM/DD/YYYY): April / 2 / 2022

4.3 Finish Date (MM/DD/YYYY): May / 18 / 2022

4.4 Leads and Lags: Kadena bridge.

5.0 Resource Assignment

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

Face Recognition Hardware:		
Arduino Uno Rev3	880 TL	
Red lids	3.5 TL	
Green lids	3.5 TL	
Ethernet Ports (ENC28J60)	107.5 TL	Total Cost = 1244.5 TL
Breadboard	21 TL	
Jumper cables (MM/FM)	19 TL +19 TL	
Battery 9V	9.5 TL	
Battery Cable	2 TL	
Camera	157.5 TL	
Distance Sensor (HC-SR04)	22 TL	