//Arduino Code

#include <SPI.h>

#include <MFRC522.h>

#include <Servo.h>

Servo servo\_test;

volatile int i=0;

#define SS\_PIN 10

#define RST\_PIN 9

MFRC522 mfrc522(SS\_PIN, RST\_PIN); // Create MFRC522 instance.

void setup()

{

Serial.begin(9600); // Initiate a serial communication

SPI.begin(); // Initiate SPI bus

mfrc522.PCD\_Init(); // Initiate MFRC522

servo\_test.attach(6);

Serial.println("Approximate your card to the reader...");

Serial.println();

}

void loop()

{

// Look for new cards

if ( ! mfrc522.PICC\_IsNewCardPresent())

{

return;

}

// Select one of the cards

if ( ! mfrc522.PICC\_ReadCardSerial())

{

return;

}

//Show UID on serial monitor

Serial.print("UID tag :");

String content= "";

byte letter;

for (byte i = 0; i < mfrc522.uid.size; i++)

{

Serial.print(mfrc522.uid.uidByte[i] < 0x10 ? " 0" : " ");

Serial.print(mfrc522.uid.uidByte[i], HEX);

content.concat(String(mfrc522.uid.uidByte[i] < 0x10 ? " 0" : " "));

content.concat(String(mfrc522.uid.uidByte[i], HEX));

}

Serial.println();

Serial.print("Message : ");

content.toUpperCase();

if (content.substring(1) == "04 8D E9 7A 2C 5E 80") //change here the UID of the card/cards that you want to give access

{

Serial.println("Authorized access");

Serial.println();

delay(3000);

for(i= 0; i< 90; i += 1) // command to move from 0 degrees to 180 degrees

{

servo\_test.write(i); //command to rotate the servo to the specified angle

delay(1000);

}

delay(30);

for(i = 90; i>=1; i-=5) // command to move from 180 degrees to 0 degrees

{

servo\_test.write(i); //command to rotate the servo to the specified angle

delay(1000);

}

delay(10);

}

else {

Serial.println(" Access denied");

delay(3000);

}

}