King Saud University College of Computer and Information Sciences Department of Information Technology





Graduation Project User Manual

iGuard Mobile Security Guard System

Prepared by

Tahani Alghanem, 435201330 Lama Almansour, 435200675 Afrah Alsubaie, 435201047 Lamia Alshahrani, 435200552

Supervised by
Dr. Ghada Al-Hudhud
Graduation Project Report
Semester 2 AY 1438/1439 – 2017/2018





Table of Contents

Graduation Project User Manual	خطأ! الإشارة المرجعية غير معرّفة.
Chapter 1:	3
1.1 setup Arduino:	3
Chapter 2:	4
2 IP Camera:	4
2.1 setup camera	4
Chapter3:	8
3 Google Glass:	8
Chapter4:	10
4 Application:	10
Table of Figures:	
Figure 1 Arduino UNO	3
Figure 2 requesting Bluetooth	خطأ! الإشارة المرجعية غير معرّفة.
Figure 5 foscam camera	4
Figure 6 add new camera	خطأ! الإشارة المرجعية غير معرّفة.
Figure 7 scan ip camera	خطأ! الإشارة المرجعية غير معرفة.
Figure 8 select ready	خطأ! الإشارة المرجعية غير معرّفة.
Figure 9 WIFI password	خطأ! الإشارة المرجعية غير معرّفة.
Figure 10 QR code	خطأ! الإشارة المرجعية غير معرّفة.
Figure 11 place QR in front of the camera	
Figure 12 google glass	8
Figure 13 QR code	
Figure 14 sign in	
Figure 15 successful sign in	
Figure 16 starting page	
Figure 17 signup page	11
Figure 19 login page	خطأ! الإشارة المرجعية غير معرفة.
Figure 16 home page	خطا! الإشارة المرجعية غير معرّفة.
Figure 17 adding location	
Figure 18 Edit profile	
Figure 19 Help page	
Figure 20 select location	
Figure 21 choose Email	
Figure 22 Start monitor or stop	12



Chapter 1:

1.Arduino:

iguard use Arduino Uno and senores to detects any motion in the location that the user select and start monitor it.

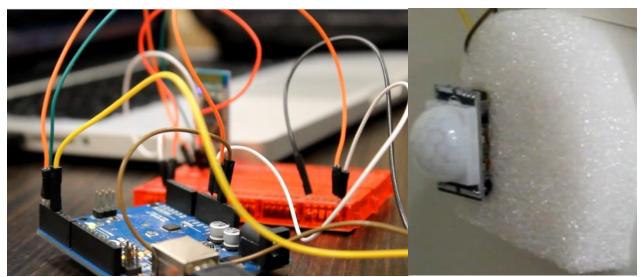


Figure 1 Arduino UNO

1.1 setup Arduino:

first the user need to setup the Arduino by switch on the Bluetooth and connect it with Arduino Bluetooth.

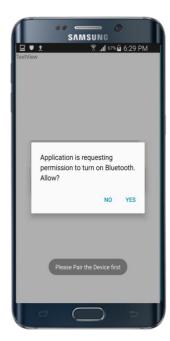


Figure 2 requesting Bluetooth



Chapter 2:

2 IP Camera:

this system use Foscam camera to capture any abnormal behavior it depends on Arduino to capture the images and to display livestream.



Figure 3 foscam camera

2.1 setup camera

- 1- Download the Foscam App from the Google Play Store and install it on a mobile device.
- 2- Apply power to the camera and allow it to complete the self-test.
- 3- Connect the smartphone to the WIFI network the camera is going to connect to and verify the WIFI network and make sure they are all using the same network.
- 4- press here to add camera.





Figure 1 add new camera

5- Scan the QR code of the camera using the camera of the smartphone. (The sticker with the code on it is on the bottom or the side of the camera depending on the model).



Figure 2 scan ip camera



6- Within the Foscam app select Wi-Fi connection and select Ready.



Figure 3 select ready

7- Within the Foscam app enter the password for the WIFI router and click "Next" to generate the QR code with the login information for the WIFI router.



Figure 4 WIFI password



8- standby for the Foscam app to generate the QR code. Once the process is complete the app will announce that the code has been generated and it will be displayed on the screen of the smartphone. Position the screen of the smartphone toward the camera lens so the camera can collect the information to configure itself to login to the WIFI network.



Figure 5 QR code

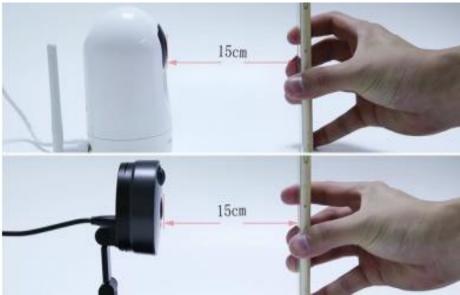


Figure 10 place QR in front of the camera



9- After the configuration process is completed the camera will announce "WIFI connection." After the announcement, the smartphone can be safely repositioned away from the camera lens. Standby until the camera announces Congratulations! Successfully added."

Chapter3: 3 Google Glass:

this system use MyGlass app to display image and livestream when any abnormal behavior it depends on Arduino detect motion.



Figure 11 google glass

3.1 setup Google glass

- 1- Download the MyGlass app from the Google Play Store and install it on a mobile device.
- 2- Press start button for google glass.
- 3- Connect the smartphone to the WIFI network the for google glass is going to connect to and verify the WIFI network and make sure they are all using the same network.



4- Scan the QR code of the Wi-Fi using the google glass to start connection.



Figure 12 QR code



Figure 13 sign in





Figure 14 successful sign in

Chapter4:

4 Application:

4.1 Starting page

if you have not register yet you need to press signup button or if you already register press log in.





Figure 15 starting page

4.1 Signup page: You need to type your Email and long password.

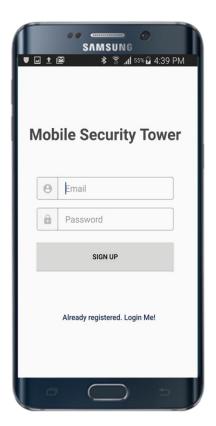


Figure 16 signup page



4.2 Login page:

In this page, you need to type your login information if you forget your password author page will appear and you type you email to rest it the password.

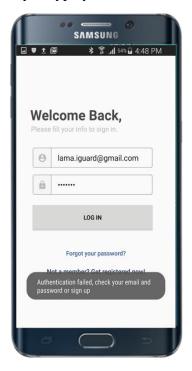


Figure 17 signup page

4.2 Home page:

This is the home page where the user can Add location or select location to monitor Edit profile and if he need any questions he can choose to help and contact the team.

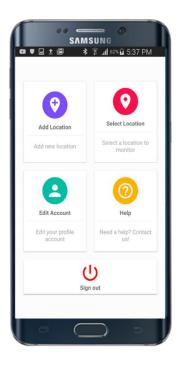


Figure 6 home page



4.3 Add location:

This page allows the user to enter the location information and add it to the system.

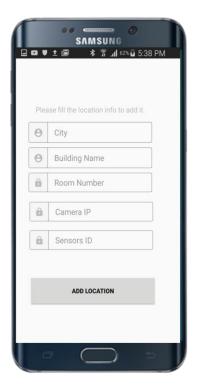


Figure 7 adding location

4.4 Edit profile:

The user can edit his information here (new email, new password).

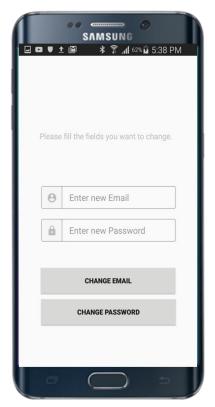


Figure 8 Edit profile



4.5 Help page:

If the user need any help he can send an email to the team.

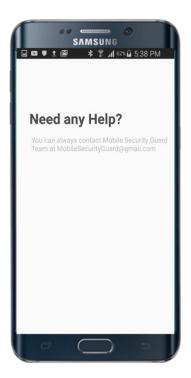


Figure 9 Help page

4.6 Select location:

The user can select one of the added locations and start monitoring.



Figure 10 select location



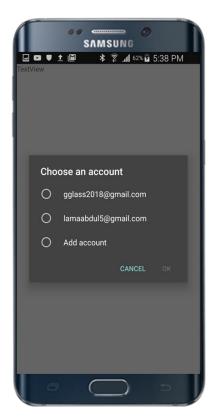


Figure 11 choose Email

And then select the Email that the user register with it when he setup Google Glass



Fiaure 12 Start monitor or stop

Finally select start or stop monitor.