Team Meeting

2/5/2018
11:00
EE Cafe

Meeting called by: Patrick
Type of meeting: Introductory
Facilitator: Shreyus
Note taker: Pu

Attendees: Patrick, Shreyus, Yaolei, Pu, Eliot, Abdullahi

Minutes

Agenda item: The Team

Discussion:

- Each team member introduces themselves and discusses their relevant strengths and weaknesses
- Shreyus and Pu are EIE students with strong coding skills
- Yaolei and Eliot are EEE students who are experienced with programming hardware from their experience with embedded systems
- Patrick and Abdullahi are EEE students who have good experience with hardware electronics
- The team then proceeds to discuss whether to break into separate sub-groups or work as one team; decides on the latter as it was observed that the nature of the project meant that continuous consultation with other team members were required

Conclusions:

- Yaolei and Eliot are versatile and as such will work on both the software and hardware sides
- The team will work together as a one big group as opposed to independent sub-groups

Action items	Person responsible	Deadline
✓ Review product specification	Everybody	4/5/2018
✓ Background research on potential sensors	Everybody	4/5/2018

Team Meeting

4/5/2018
14:00
Central Library

Meeting called by: Mutual
Type of meeting: Client Meeting
Facilitator: Shreyus
Note taker: Pu

Attendees: Patrick, Shreyus, Yaolei, Pu, Eliot, Abdullahi

Minutes

Agenda item: Review of Product specification

Discussion:

- The device must be able to detect heart rate, temperature, blood pressure and skin resistance
- It must have a GPS
- The device should keep a log that can then be used to detect patterns and the data can useful for GPs and other carers
- The device should also be voice activated; it should respond to the user calling out “Help”
- The AI should have a personality and be able to converse to put the user at ease; asking things like “What’s your plan for today?” and regularly inquiring about the user well being
- Mr. McNamara (the client) added an optional requirement; he wanted the team to film promotional material for the IBM industrial group project (simple videos of team working on the project). The team agreed to meet this requirement.
- The client also informed the team that components distributer Arrow Electronics has agreed to supply components free of charge.

Conclusions:

- The team will begin selecting and ordering sensors next week

Action items	Person responsible	Deadline
✓ Research and select sensors	Patrick, Abdullahi and Yaolei	11/5/2018
✓ Find a way to add a GPS to the product	Eliot	11/5/2018

Team Meeting

7/5/2018
11:00
EE Level 5 Lab

Type of meeting: General Team Meeting

Note taker: Abdullahi

Attendees: Patrick, Shreyus, Yaolei, Pu, Eliot, Abdullahi

Minutes

Agenda item: Distribution of work

Discussion:

- For the next few weeks the project would be separated into different parts
- It's agreed that one area will be hardware (just researching and ordering components for now). Patrick volunteers to head this part.
- The project brief indicated that Node-Red would be useful and as such someone should look into how to use it and its possible applications. Same goes for IBM Watson
- Shreyus suggested making a supporting app as it would make the SMS alert simpler and also already have a GPS in built.

Conclusions:

- The work is to be split into three initial parts; the app development, hardware research and flow construction with Node-Red
- There will be a supporting app

Action items	**Person responsible**	**Deadline**
✓ Hardware Research and Selection	Patrick, Yaolei and Abdullahi	14/5/2018
✓ Familiarise themselves with Node-Red and Watson	Eliot	14/5/2018
✓ Develop an App	Shreyus and Pu	8/6/2018

Team Meeting

11/5/2018

14:00

EE Level 6 Conference Room

Type of meeting: Client Meeting

Note taker: Abdullahi

Attendees: Patrick, Shreyus, Yaolei, Pu, Eliot, Abdullahi

Minutes

Agenda item: Progress review

Discussion:

- The team informed the client that they had decided to create a supporting app for the device.
- Regarding the app display:
    - The top section will have three emergency contacts; the user presses on one and the phone places a call
    - In the middle there will a large red button with “Help” on it; pressing this will send an SMS with the user’s location to their carer
    - At the bottom there will be map which can be used to direct the user to a safe location (e.g. coffee shop)
- The client supported the idea of an app but emphasised that the device should perform most of the functions (i.e. the app should not form an integral part of the final product)

Conclusions:

- The team will continue with the app development

Team Meeting

14/5/2018

11:00

EE Level 5 Lab

Type of meeting: General Team Meeting

Note taker: Abdullahi

Attendees: Patrick, Shreyus, Yaolei, Pu, Eliot, Abdullahi and Yucheng

Minutes

Agenda item: Plan the for week

Discussion:

- Shreyus and Pu have finished the App design and they have started work on functionality
- Yucheng volunteered to help out with the App development
- Most of the required components have been ordered
- They include a heartbeat sensor and raspberry pi from Arrow, and sensors and an ADC from Adafruit
- The possibility that the product will not have the added capability of detecting the galvanic skin response of the user is raised, due to its incompatibility with the rest of the design
- As there is not much left for the hardware group to work they should be assigned new tasks until the components arrive
- Patrick volunteered to start work on the leaflet and Abdullahi is tasked to help Eliot and Yaolei with Node-Red
- For Node-Red, the flow construction is progressing and it meets specification in regards to speech recognition and conversation capabilities coming from the AI.
- Eliot has now started to work on the connectivity between Node-Red and the phone
- A meeting Dr. Stathaki (the superviser) was held to discuss our ideas

Conclusions:

- Components have been ordered
- No GSR detector will be added to the final product

Action items	**Person responsible**	**Deadline**
✓ Find a way to connect Node-Red flow to a device (potentially via bluetooth)	Eliot, Yaolei and Abdullahi	18/5/2018
✓ Begin Work on the leaflet	Patrick	15/8/2018
✓ Work on the App's functionality	Shreyus, Pu and Yucheng	8/8/2018

Team Meeting

18/5/2018
11:00
EE Level 5 Lab

Type of meeting: General Team Meeting

Note taker: Abdullahi

Attendees: Patrick, Shreyus, Yaolei, Pu, Eliot, Abdullahi and Yucheng

Minutes

Agenda item: Progress Review

Discussion:

- The raspberry pi has arrived and Shreyus has installed the relevant software (NOOBS and Raspbian)
- Work on the raspberry has begun
- It has been decided that connection to the external device will be established via MQTT due to past experience some members have with the communication method and its compatibility with Node-Red
- Concerns have been raised over the delay as no other component had arrived yet
- This has left the hardware team with little to do and has led to an increasing gap between the hardware portion of the project and the other sides (Node-Red and the App) in terms of progress
- It's suggested that the team contacts Arrow or the client and ask for an estimated arrival date
- The App development group (Shreyus and Pu) informed the rest of the team that the App was nearing completion as most of the functional requirements had been implemented
- The "Help" button and the navigation feature of App was complete and only the contact list remained incomplete

Conclusions:

- Work on raspberry pi has begun
- App nearly complete
- Sensor have not arrived yet

Action items	**Person responsible**	**Deadline**
✓ Contact Arrow/Client	Patrick	21/5/2018
✓ Begin flow construction in Node-Red on the raspberry pi	Eliot and Yaolei	25/5/2018

Team Meeting

21/5/2018
11:00
EE Level 5 Lab

Type of meeting: General Team Meeting

Note taker: Abdullahi

Attendees: Patrick, Shreyus, Yaolei, Pu, Eliot, Abdullahi and Yucheng

Minutes

Agenda item: Plan the work for this week

Discussion:

- Microphone and speaker have arrived but the other sensors still haven't arrived. Nonetheless, the team could begin to making progress with the hardware side of the project
- It's decided that Yaolei will take charge of building the necessary circuit for the speaker with Eliot helping incorporate the right nodes in Node-Red
- As for the rest of the sensors, Patrick was able to contact Arrow Electronics but was told the heart beat sensors would arrive on the 18th June, 4 days after the deadline for the product.
- As such, the team decided to instead order from another source, Amazon
- With little to be done on the hardware side (the tasking of setting up the speaker required only one person with the occasional consultation with other team members), Abdullahi was assigned to find a way to connect a button to the raspberry pi such a push would run a certain piece of code
- Patrick was assigned to help Eliot finish his work with Node-Red
- The App was nearing completion with only the MQTT communication still to be implemented
- Work on Node-red connectivity will continue, not much progress have been made yet

Conclusions:

- Sensors will be delayed further
- Circuit construction will begin with raspberry pi and speaker

	Action items	**Person responsible**	**Deadline**
✓	Set up and connect speaker and microphone to raspberry pi	Yaolei	25/5/2018
✓	Connect a button to raspberry pi	Abdullahi	25/5/2018
✓	Clean up and Finish the App	Shreyus and Pu	1/6/2018

Team Meeting

25/5/2018
11:00
EE Level 5 Lab

Type of meeting: General Team Meeting

Note taker: Abdullahi

Attendees: Patrick, Shreyus, Yaolei, Pu, Eliot, Abdullahi and Yucheng

Minutes

Agenda item: Progress Review

Discussion:

- Heart beat sensor has arrived and the Node-Red group along with the hardware group are working to construct the circuit and connect it to Node-Red
- After initial testing it was clear that the sensor required calibrating and as such the team will continue working on it
- The speaker and microphone has been successfully integrated, with positive testing results
- However, due to the tight budget, an operational amplifier was used to boost the speaker's volume
- The App was still not polished yet but progress remained on track
- It's discussed that it is time to consider aesthetics of the final product
- What was firstly needed was a case to store all the electronic component in
- Given the time frame and budget, 3-D printing appeared to be most viable route for the team
- Yucheng volunteered to complete the 3-D printing given he has previous experience with it

Conclusions:

- App development on track
- Hardware group is making progress

Action items	Person responsible	Deadline
✓ Create a 3-D printed case for the final product	Yucheng	8/6/2018

Team Meeting

4/6/2018
11:00
EE Level 5 Lab

Type of meeting: General Team Meeting

Note taker: Abdullahi

Attendees: Patrick, Shreyus, Yaolei, Pu, Eliot, Abdullahi and Yucheng

Minutes

Agenda item: Progress review

Discussion:

- The App is completed and performs all the essential functions.
- It has successfully been connected to the raspberry pi
- With some time left till the deadline it's decided that additional feature will be added to App; this will begin with App processing the data it receives from the raspberry pi
- The screen has successfully been added to the raspberry pi along with the heart beat sensor and temperature sensor
- Concerns were raised regarding the 3-D printing of the case as no progress has been shown. Yucheng assured the team that it would be done by the end of the week.
- Leaflet is nearing completion

Conclusions:

- The device starts to look like an actual prototype
- 3-D printing appears to be on track

Action items	Person responsible	Deadline
✓ Add additional features to the App	Shreyus and Pu	11/6/2018
✓ Complete 3-D case for final product	Yucheng	8/6/2018
✓ Finish Leaflet	Eliot and Patrcik	8/6/2018

Team Meeting

13/6/2018
12:00
EE Level 5 Lab

Type of meeting: Supervisor/General Team Meeting

Note taker: Abdullahi

Attendees: Patrick, Shreyus, Yaolei, Pu, Eliot, Abdullahi and Yucheng

Minutes

Agenda item: Progress review

Discussion:

- The team met the supervisor to present the finished final product
- Yucheng has completed the 3-D case
- Poster has been completed

Conclusions:

- Final Product is complete

Action items	Person responsible	Deadline
✓ Present Final Product	Everybody	14/6/2018