OUT OF BOX Experience

Christopher Barrett, Aaron Clifford, Lisa Murphy



Medicate Lifesense A6-Blood Pressure Monitor Wireless





Mission Statement

IMPROVING THE USER EXPERIENCE OF THE MEDICARE BLOOD PRESSURE MONITOR FROM FIRST PURCHASE, TO THE SET UP AND USING OF THE DEVICE.

PD4033 Design For Professional Practice

Christopher Barrett, Aaron Clifford, Lisa Murphy



Product













Unnecessary logos











Mention of app











Necessary information





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How to use the machine





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Monitor



The monitor itself looks simple but for many people who are new to to taking their blood pressure wouldn't know what Systolic and diastolic means.

This is also not explained well in the manual.

The time and date isn't an essential part to the product.

The button to start the machine isn't cheap as you have to start it by pressing one of the people. Which confused some of the people we interviewed





Features

Product

- Wireless
- Fully automatic upper arm measurement
- Tubeless technology
- Ultra slim design
- Accurate measurement +-3 mmHg
- Irregular heartbeat detection
- 2 x users, 60 memories per user
- Backlit LCD display
- Cuff size 22-32 cm
- Date and time function
- Power: AC adaptor (included)

Optional App

- Allows you to check data at anytime.
- Data is sent automatically through bluetooth
- Compatible with IOS 7 and android 4.3
- Charts for users to monitor health
- Share data

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APP



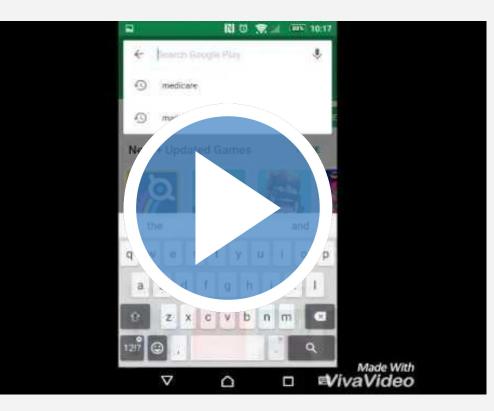
Getting App

The app is easy to get as long as the user knows how to download apps from the playstore or the app store

The Fleming medicare app is not the first one that comes up when you search medicare which might cause some confusion

Logging in isn't difficult as but it seems slightly unnecessary

One pages asks metric or imperial and mg/dl or mmol/L which is very badly explained as mainly wouldn't know the meaning





Syncing App

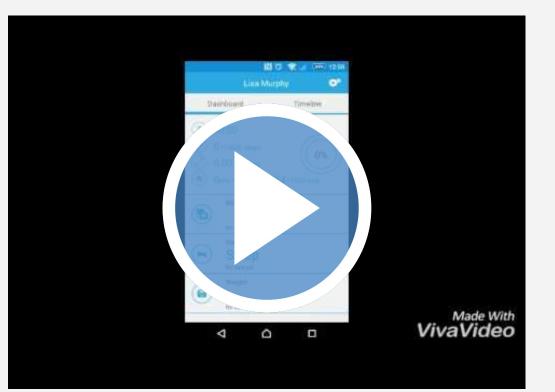
Getting the app is easy but trying to sync the app isn't as straightforward.

The app itself only tells you to turn on the machine not what button to press.

The sync button is the last one and you have to hold it rather than touch it.

The app itself can be connected to other medicare products so a lot of the options on the app aren't to to with the monitor at all

Took around 10 minutes to figure out what button to use





Syncing App

Pair the device is on page 12 of the manual

- 1 Turn on bluetooth on the app
- 2 Hold user 2 button until the loading symbol appears
- 3 When successful a box should appear When it fails an EI will appear
- 4- The monitor will shut off automatically after the pair-up process is complete



secondary Research



Regular users of blood pressure monitors

- Patients starting HBP treatment to determine its effectiveness
- Patients requiring closer monitoring than intermittent office visits provide, especially individuals with coronary heart disease, diabetes and/or kidney disease
- Pregnant women since preeclampsia or pregnancy-induced hypertension can develop rapidly
- People who have some high readings at the doctor's office, to rule out white-coat hypertension and confirm true HBP
- Elderly patients, because the white-coat effect increases progressively with age
- People suspected of having masked hypertension



People that shouldn't use a home monitor

People with atrial fibrillation or other arrhythmias may not be good candidates for home monitoring. Why? Oscillometric-method monitoring devices recommended for use at home may not be able to give accurate measurements for people with these conditions. If your healthcare professional recommends home monitoring, have your monitor's readings compared to readings taken by the auscultatory method. In this monitoring method, the professional uses a manual blood pressure cuff and stethoscope to listen to the blood pulsing through your brachial artery.

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Retail Research



Online Retail

Blood pressure monitor: Fleming medical is the 9th and 10th website from the top

Fleming blood pressure monitor: Fleming medical is the 3rd website from the top

The first medicare blood pressure for sale is found on the Sam McCauley site, which is 4th from the top

Many other blood pressure monitors appear first with lower prices which might take customers before they even see the product

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Online Prices

The fleming website itself doesn't show any prices as only business can buy from them

The prices online vary greatly

There is only one picture of the product at one angle

The advertising picture isn't very good as it is at a bad angle and does not advertise the products best features

One of the websites as shown on the right got the name of the product itself wrong by calling it omron and not medicare







Competitor Products

None of the four pharmacies that we visited stocked our monitor.

The shop with the widest selection was Boots, which stocked 13 blood pressure monitors. Of these, 5 were for the wrist, with 8 for the upper arm, which is seen to be as more accurate.

Blood pressure monitors were usually placed near the pharmacy desk of the stores. This was to ensure that consumers would get advice from qualified pharmacists.

The products that were placed at eye-level, and would therefore be seen by the consumer first were Boots own brand monitor and two Omron devices.

The packaging of competitor products largely followed a generic theme. This included primarily dark shades of black and navy with some white and cream. An image of the monitor was also incorporated to the front.

In Boots, any product that had a price higher than €100 had a security seal placed on it, which substantially obscured the design of the packaging.















Competitor Products

It was evident during our visits to the various pharmacies that brand loyalty plays a role in the customer's selection.

As we arrived at the area with the monitors, Chris initially reached for a Braun device, while Aaron opted for Omron. This was due to the fact that they were aware of these brands and felt comfortable with them.

Lisa however, opted for the iHealth Wireless Blood Pressure Monitor, due to its attractive design. This featured a design similar to that of modern technology devices and included a soft shade of white with a generous application of orange.

However, this included a large list on the side of the box which informs of the compatible devices. As the monitor was only compatible with Apple products, it was not necessary to provide a list of devices. A simple note on the compatibility of Apple devices would suffice, which would clear up some valuable space on the side of the packaging.











Almost all of the blood pressure monitors we seen used the same colours, Blue and Black. The only packaging that stood out by colour was the IHeart, which was white and orange.

All of the boxes had a picture of their product on the outside. Some of them had the same thing on the back and the front of the box.

Our product differed as the main colour is white and the product itself can be seen rather than a picture.

The white used on the medicare packet is more clinical and maybe a turnoff for consumers.



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USER EXPERIENCE TEST



Getting Interviews

We decided to get interviews from a wide range of users and non users from different genders, age groups and occupations.

We contacted local nursing homes, care centers and the student health center to try get interviews with nurses, doctors and patients as they would all have experience using blood pressure monitors.

The student health center was the most responsive and we got an interview with in a day.

The nursing home and the care center were harder to getting contact with. We called and emailed them but we didn't get anywhere so we decided to go in person and then we were giving more phone numbers and email addresses to contact.



INTERVIEW FEEDBACK



Boots Pharmacist Interview

Would recommend to customers the most simple Blood pressure monitor, This would be Braun or the Boots brand which is almost the same but cheaper

Boots pharmacists use a Braun monitor for taking customer's blood pressure

Customers shouldn't spend over 100 on a product as they would get extra features that they will need and if they are that worried they should go to a doctor

Never recommend the wrist blood pressure monitor as they are less accurate

Most customers are 60 and older

Wouldn't recommend the monitors with apps to the elderly

A monitor with space to track to people is very popular for couples



College Nurse

Wouldn't recommend people to buy heart monitors.

Heart monitors are subjective they may give higher or lower readings do to a person being nervous, after exercising or various other reasons

Prefers the manual monitor as when an accurate test is needed

Blood pressure monitors aren't needed as if a person is actually sick it is there symptoms that will tell them if something is wrong rather than their blood pressure

Admitted that when working in a medical call centre, she received an abundance of unnecessary calls relating to high blood pressure



Care Home Nurse

More and more elderly people are able to use apps

The strap was too big for her so she left it quite loose

How to use the monitor should be on the box as no one will read the manual

The monitor they have has a lot of components and is quite awkward to carry around. The pieces often detach as it is being carried around which is very inconvenient.

Found that home blood pressure monitors are very convenient.

Used a monitor while she was pregnant.



USER UNBOXING TESTS



First hand unboxing





Non-Users





Users



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KNOWNS AND UNKNOWNS



Knowns

		Normal blood	The app is	Omron provide pharmacys with self	
The manually pumped blood pressure monitors	Omron is another brand of monitors	pressure isn't standard	mentioned numerous times on the packaging	service blood pressure testing units	
are more accurate	Health care	Blood Pressure	App is available	Omron is typically	
Blood pressure monitors go on the left arm	workers use monitors with	levels are subjective	on the Apple app store and Android play store	more expensive than Medicare	
the tert ann tubes				There are three	
Elderly people are the most common users	The closer to the heart the more accurate the	Instruction manuals are widely ignored	Wrist monitors are less accurate	buttons and one switch on the device	
	reading				
Nurse use blood pressure monitors	Doctors use blood pressure monitors	The physical product is visible in the packaging	Boots are the largest stockists of blood pressure monitors	Doctors now have to get two sizes of cuffs for their blood pressure monitors	



Knowns

The monitor is often placed upside down by	The packaging is made up of card and	Bar the charger, the unit contains no wires	The app syncs through Bluetooth	60 memories per user
the user	polypropylene	Three items are	The monitor is	Cuff size is
Users are prone to selecting the wrong button	The instruction manual is relatively small	contained in the packaging	tubeless	22-32cm
There are no instructions on the box	The charger supplied is not the universal type	The manual is 29 pages long	Data is automatically uploaded to the app	There is a date and time function
There is no bag or case with the monitor	The monitor gives four readings; Systolic, diastolic, pulse and memory	The manual is printed in black and white	Monitor caters for two users	App contains charts for users to monitor their health



Unknowns

What illnesses require you to uses a blood pressure	People with irregular heart	How reliable the unit is	How tight exactly the cuff needs to be	How Medicare market their product
monitor	beats use them	If the unit needs	The placement of	Why Medicare
Pregnant women use them	What a normal blood pressure is	to be serviced at any stage	the monitor on the arm	chose not to directly sell the unit from their website
People with diabetes don't use them	If watches or rings need to be removed for the test	If there is a warranty on the monitor	Who Fleming Medical decided their target market was	Why the monitor can't be used while plugged in
Hypercondriac use blood pressure monitors	Whether or not the arm used makes a difference	How many layers of clothes impact on the reading	What the largest demographic of purchasers is	How long it takes the unit to fully charge

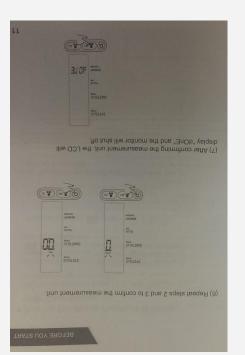
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user Manual



Manual

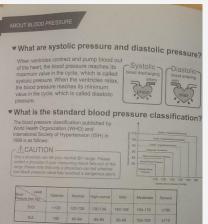


The manual contains a lot of unnecessary information.

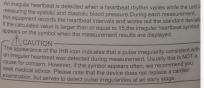
It explains how to change the time and date before it explains how to work the machine itself

The manual doesn't explain how to turn on the machine and it is very hard to find out what the results you need actually mean

There is a lot of small writing for a product that is mainly used by the elderly



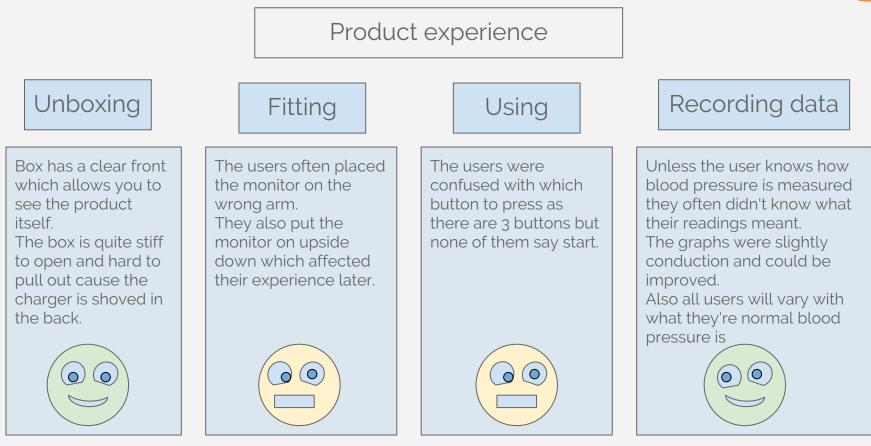
Irregular Heartbeat Detector





Journey Map







App experience

Syncing

Downloading

Finding the app is very easy, but it is not the first app on the list call medicare which might cause some confusion. The medicare logo clears this confusion up which is an overall good experiance.



The syncing process on the other hand is quite conduction as it took a lot of time as it isn't clear which button on the monitor to press.

As bluetooth is being used it is also alot slower than most product.



Using

Using the app itself is quite easy as it is a simple app which is really basic. Navigating the app is easy but there is a lot of relevant information to do with other products.





CLINICAL FINDINGS



• White coat hypertension

A phenomenon where patients exhibit a blood pressure level above the normal range, in a clinical setting, though they don't exhibit it in other settings.

• Servicing

It's recommended that blood pressure monitors in clinical situations be recalibrated every two years.

• Users

Due to a growing obesity epidemic, doctors have begun to purchase larger cuffs for monitors

• Anxiety

The anxiety gained by a user stressing over each day's blood pressure reading could result in even higher readings as a consequence

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Observations	Problems	Needs	Rank
Some elderly people can't use apps	They can track their results over time	A different way to track results	2
Some elderly people cant download apps	They can't access the app	An easier way to get the app	3
The app takes a long time to get and sign up	Waste of time many people won't want	A quick or easier way to log in and get the app	3
The app needs wifi to work	Wifi isn't always available	Base the app of bluetooth	5



Observations	Problems	Needs	Rank
People put the monitor on the wrong arm	It is not as accurate	A way to clearly show it goes on the left arm	2
The on switch wasn't clear to all users	The on switch inst clear	Advertise the on switch	3
Many of the users put it on upside down	They can't read the reading	Clearly show what way to put it on	3
How to start the machine isn't clear	People struggle to get the machine to start	Clearer instructions or buttons	1



Observations	Problems	Needs	Rank
People didn't know what the readings meant	They can't tell if there blood pressure is high	A quick explanation to the readings	3
There is no graph to show if the reading is good	People don't know if they have normal blood pressure	An easy way to read the blood pressure	1
There is no where to store it	People might lose it	A place for it to be stored	3
People throw away the box and manual	If a problem occurs they can't fix it	Design a box and manual they will keep	1



Observations	Problems	Needs	Rank
The packaging looks cheap and old	It might deter people from buying it	Better way of packaging	2
There is no line on the monitor to show where you place it	A more accurate reading	A way of indicating where the monitor should be placed	2
There are 11 logos on the box	A waste of space	Advertise the brand clearer and less	3
Syncing the monitor takes ages	Waste of time	Quicker way to syncing the devices	4



Observations	Problems	Needs	Rank
Many users disregard the manual right away	There is no other way to access instructions	A more appealing manual	1
Text in the manual is difficult to read	Some users can not access the information	Clearer text	3
Many users are unsure of what button to press	The wrong button is often used	A better understanding of which button to use	1
It is unclear whether or not the monitor has to be plugged in	Users may unnecessarily plug it in- wastes electricity	Users to be informed that the unit is charged	2



Observations	Problems	Needs	Rank
It's not clear how to Sync the device	Causes confusion	An easier way to Sync the device	3
The app is for other devices to	Pointless options	Isolate the options for the monitor	5
It is not the first app on the store	People may download the wrong app	Clearly distinguish itself from other apps	4
The sync button isn't clear	Causes conduction	Better instructions or button	2



Observations	Problems	Needs	Rank
Users were not aware of the steps in order to get an accurate reading (ie taking off watches)	Leads to inaccurate readings	Clearer instructions of the steps	2
Graphs provided are generic	This may make users anxious and skew their results	Users understanding that "normal" blood pressure levels vary from person to person	1
There is no storage bag or box provided	Smaller items may get misplaced	A more efficient way of storing the unit	1



Observations	Problems	Needs	Rank
Not the only medicare app	Cause confusion	Distinguish itself from the apps with the same name	2
The app doesn't say if the reading is bad or good	People might not know what the reading means	A way to know what the reading means	3
Unit doesn't work while plugged in	Users may think the monitor is not working	Monitor to clearly display that it is charging only	4
There is no indication of battery level	The monitor could go dead without notice	A battery level display	1



Observations	Problems	Needs	Rank
The meaning of the readings is near the end of the manual	The user has to go through the whole manual to see what their reading means.	A faster way to find the readings	2
Diagrams within the manual are boring	Users find them unuseful	Design easy to follow diagrams	3
Bulky charger	Doesn't fit in box could be lost	A charger that can be easily stored	4
Charger does not have a universal port	Difficult to find a replacement if lost	A universal charger	4

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Personas



Eileen- Nursing home resident



"I've tried a home monitor before but I just couldn't get the hang of it"

Personal Information

Age: 80 Residence: Castletroy nursing home Personality: Friendly and enthusiastic

Background Information

Eileen has been a resident of the Castletroy Nursing Home for the last three years. She considers the help she receives from nurses to be exceptional. Eileen was advised five years ago by her GP to monitor her blood pressure daily. Following this advice, Eileen's son purchased a blood pressure monitor from Lidl for €29.99. Eileen admitted to struggling to use the device in the early stages but after some assistance and practice she began to use the monitor regularly. However, since entering the home, Eileen has ceased recording her own blood pressure, as it can be done by the nurses. Unfortunately, readings can only be obtained every 2-3 days, which lead to a fluctuation in Eileen's results.

Difficulties

Eileen admits that had her son not instructed her on how to use her old monitor, she would have probably disregarded it. She struggled with the interface and confusing buttons on the LidI monitor and although she eventually grew comfortable with it, Eileen has since stowed away the monitor. Stating that the monitor was "far too complicated", Eileen felt that it was designed for a doctor to use. Although she is aware that it is important to track her blood pressure daily, Eileen prefers to opt for having it measured every few days, rather than having to once again figure out her old monitor.



Design Guide



Design Guide

Create a box that has a multifunction to encourage user to keep it.

Design another convenant method of tracking blood pressure without the use of the app.

Create an easier interface that is self explanatory

Design a way to easily explain how the machine is supposed to be used.

Design easy to read diagrams that explain what the blood pressure reading really means

Design a manual that is easily understood

Places short, easy to follow instructions on a place that the user will never throw away

Make the process of syncing the device faster and easier



Packaging Research



Online Research





UE BOOM 2 - Speaker



Paper cover simple advertising, with a picture and the name of the product

Black shell with an engraving of the product brand





UE BOOM 2 - Speaker





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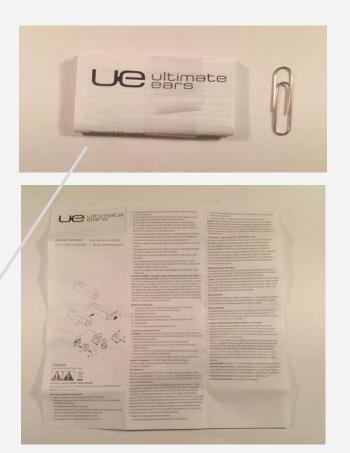


UE BOOM 2 - Speaker



Simple Quick start guide

Tiny manual that folds out with all the information





Iphone 7

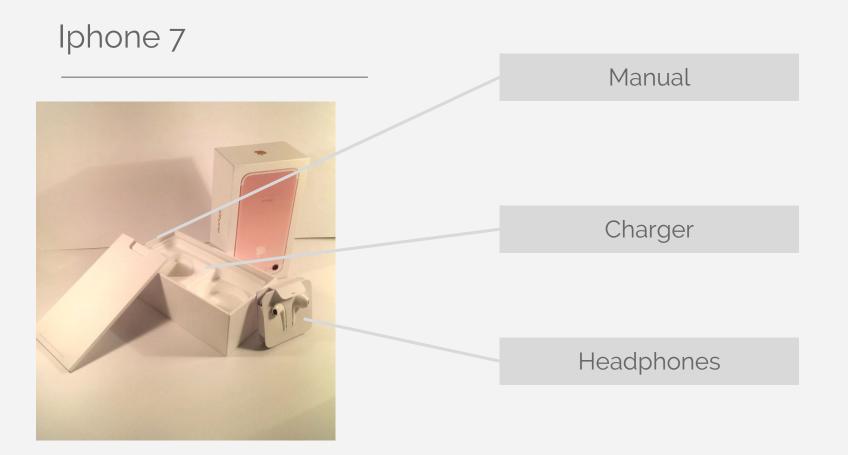


Simple white packaging, top slides off











Boots Wrist Monitor



Convenient storage box accompanies monitor

Contains monitor, cuff and instruction manual



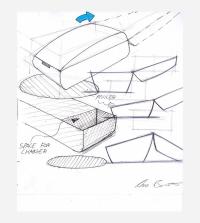


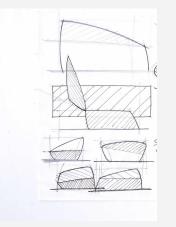
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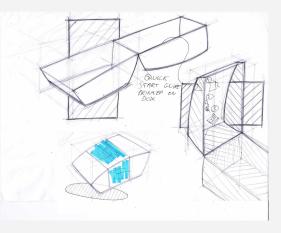
Ideation





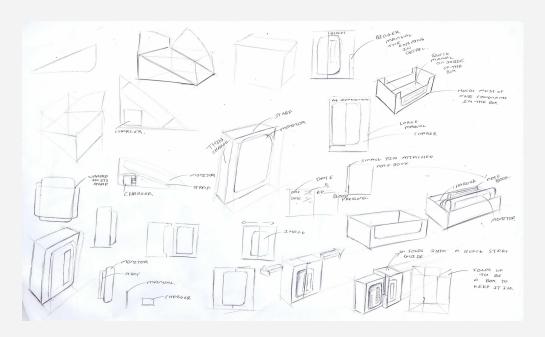


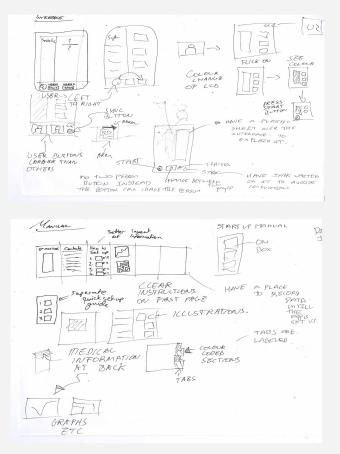






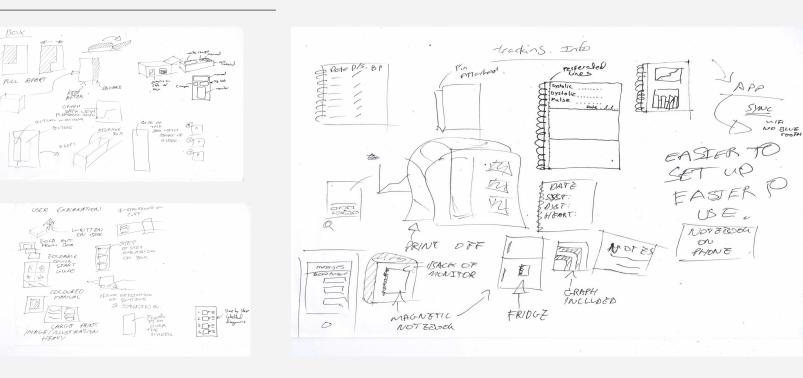
Ideation







Ideation





CONCEPT Development



Concepts

We decided to choose 3 concepts that dealt with the problems throughout the whole out of box experience.

We started with the box then the quick start guide and finally the app.

The 3 concepts are designed so that they work together to create a perfect out of box experience for the users



CONCEPT 1 BOX



Redesigned box

Problems

- Box is very disorganised with the charger barely fitting in the back
- Materials are cheap looking and broke after repetitive opening of the box
- The box is often thrown away.
- Information on the outside of the box is irrelevant and bulky

Solutions

- Foam based box with sections for all the components
- The box is designed in two pieces one of the pieces can be flipped on its side to create a container box for the monitor.
- Edited information which is more selective on what goes on the box and where. E.g logo and how many times it appears, Quick how to use guide









Sliding box

We designed a box that was more attractive and pleasing to look at. It has more vibrant colours that attract the buyers attention.

The outer box can be kept and used as a storage container after throwing away the insert.















CONCEPT 2 QUICK STAIT GUIDE



Problems

- There is no quick start guide provided with the monitor
- The majority of users disregarded the manual and attempted a trial and error technique
- The instructions on how to operate the monitor are difficult to find as they are towards the back of the manual

Solutions

- Design a one page document that clearly explains how to use the monitor
- Eliminate text that is not essential
- Keep the instructions illustration heavy

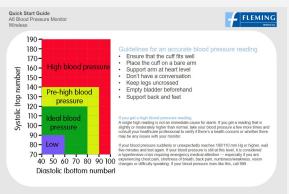






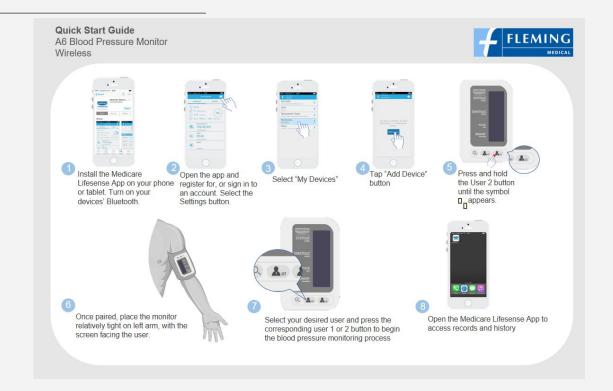


Front of page

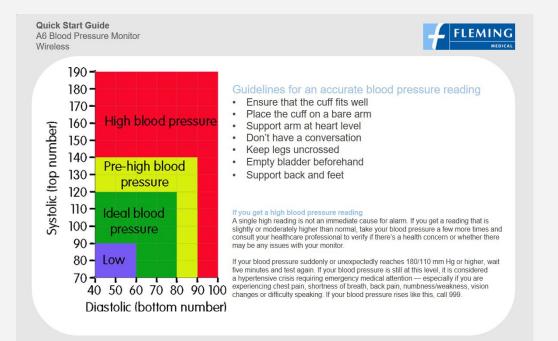


Back of page











CONCEPT 3 APP DEVELOPMENT



Арр

Problems

- Syncing the app to the monitor is confusing and time wasting
- The log in questions aren't important for this product. E.g High
- The app is used for more medicare product and these product take up most of the space on the app
- Data graphs don't shower the user's regular blood pressure

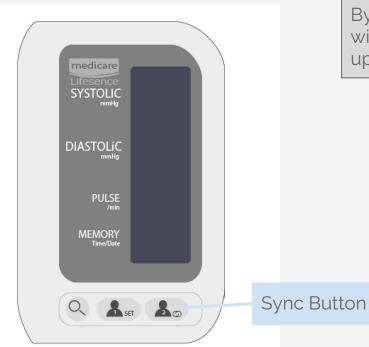
Solutions

- Sync the app using wifi which is a lot faster. The sync button has more than one function as it also opens the app when you press it.
- In the setup you choose which products you have so the options for these product only come up on this user profile.
- Create graphs that standardise a user's blood pressure to their individual normal reading

Concept 3



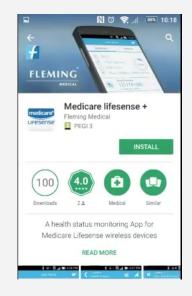
Syncing app



Using wifi instead of bluetooth will help with the syncing problem

By pressing the button on the monitor it should turn on the wifi. By connecting to the wifi on your phone it will bring up a QR code to the app store

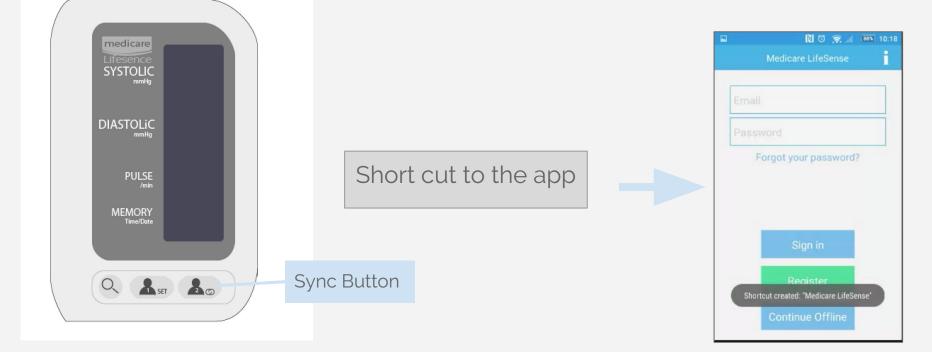




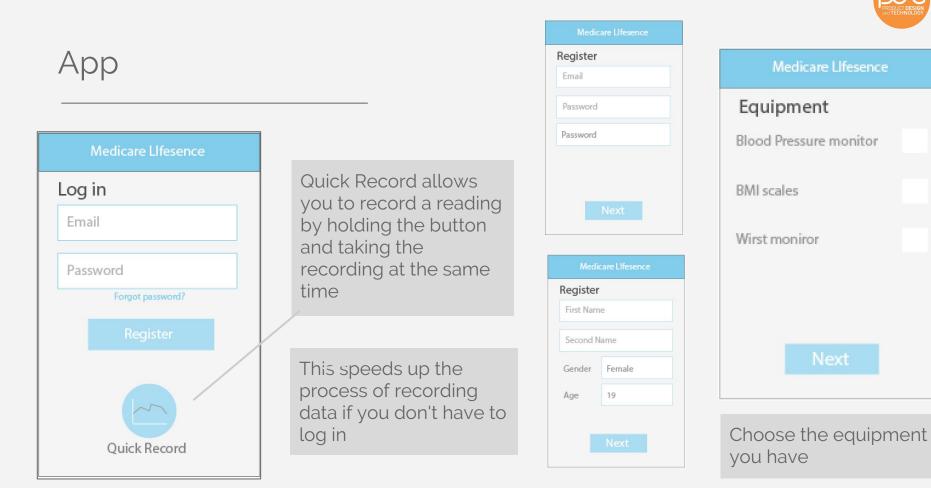


Syncing app

Once the app is downloaded the sync button will turn on the wifi and when you connect to the wifi this will automatically bring up the app itself









Арр

Users name	Users name				Users name	
Blood Pressure monitor	Blood Pressure monitor Past recordings			Graph that shows each user their	Blood Pressure monitor	
Past recordings	1 dec 20 2:23	16 153/92	63 🎔	regular blood pressure. This is		
Graphs	2 dec 2016			make more accurate over the amount of		
	3:43 3 dec 20	158/83 16	73 🎔	readings taken	Date	
	5:12	155/87	67 🎔		Your normal blood presure area	



Marketing boards

Redesigned packaging

The new and improved packaging gives the A6 Blood Pressure Monitor a more stylish appearance

The insert easily slides out of the outer box, and the box can then be used a storage container.

The outer box also features a simple user guide along the side and data charts at the back.





Quick Start Guide

This simple guide allows the user to quickly operate the monitor

The guide comes conveniently folded in the packaging

Features necessary medical information which can be accessed at any time







Medicare Lifesense App

The new Medicare Lifesense app is faster and easier to use

There is a quick record button which allows users to connect to the app without logging in.

The app is tailored to the device that you have chosen

Medican Ufisionae	Medicare Lifesense	Heckare Lifescos	Useri name	Users name
Register	Register	Equipment	Blood Pressure monitor	Blood Pressure monito
RistName	Errol	Blood Pressure monitor	Record	Past recordings
Second Name	Password	fibil scales	Past recordings	1 dec 2016 2:23 153/92 63
Gender Female	Password	Wint maning	Graphs	2 dec 2016
Age 19			Chip to	3-43 158/83 73 3 dec 2016
				\$12 155.97 67
Next	Next	Next		



