Select language of first time setup

Before

Inside **Outside**

Welcome to
AUTUMN!
Please choose your language

English	Bengali
Español	Japanese
French	Portugese
Chinese	Dutch
Hindi	Polish

When the user first time installs the application on the door, the first thing that they are asked is to select their language.

After

Inside **Outside**

No more searching for keys. Just touch, speak or use your phone to unlock the door!

Setup

Learn More

Once user selects the language(here it is English), he is automatically directed to the next page, which gives a brief intro of the smart door and two options : One is to setup their profile or learn more about the smart door by clicking the learn more button.

Video tutorial

Inside

Outside

No more searching for keys. Just touch, speak or use your phone to unlock the door!
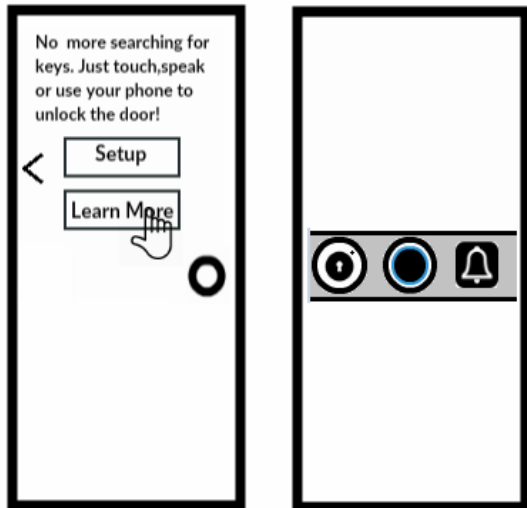
<

Setup

Learn More

After

Inside

Outside
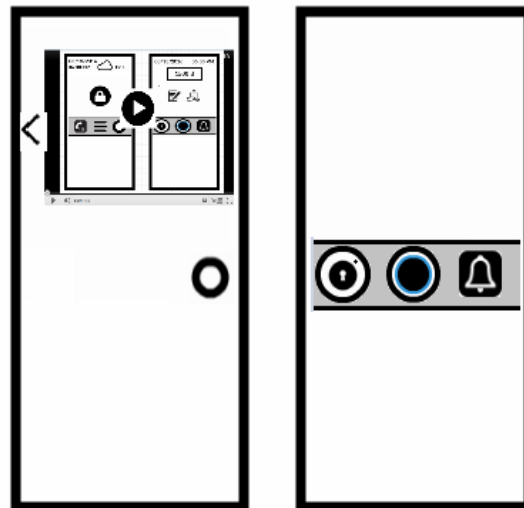
To learn more about the door applications and how to use them, the user can click the learn more button.
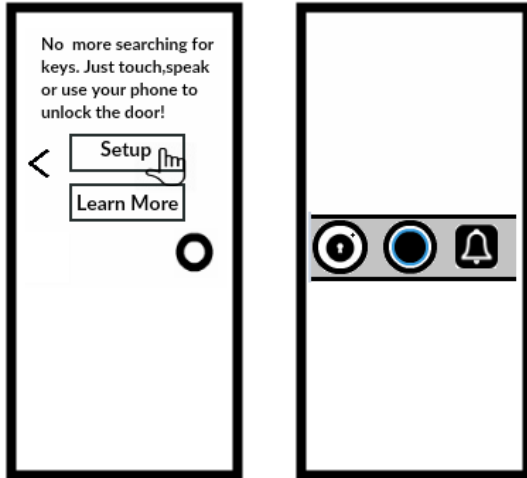
On clicking the learn more button, the user is directed to a video tutorial of the smart door application which shows in detail how to use the application.

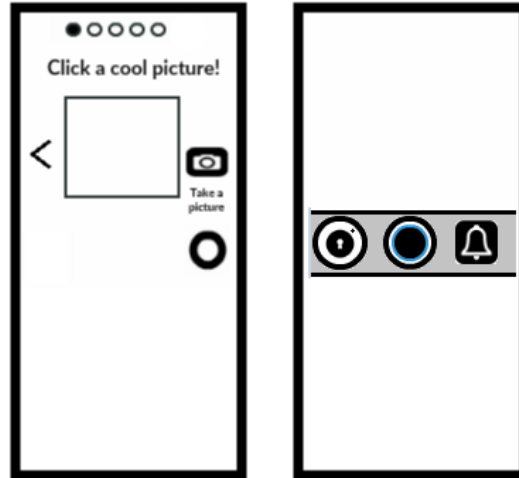# First time user setup

Before

Inside | Outside

No more searching for keys. Just touch,speak or use your phone to unlock the door!

Setup

Learn More

After

Inside | Outside

● ○ ○ ○ ○

Click a cool picture!

Take a picture

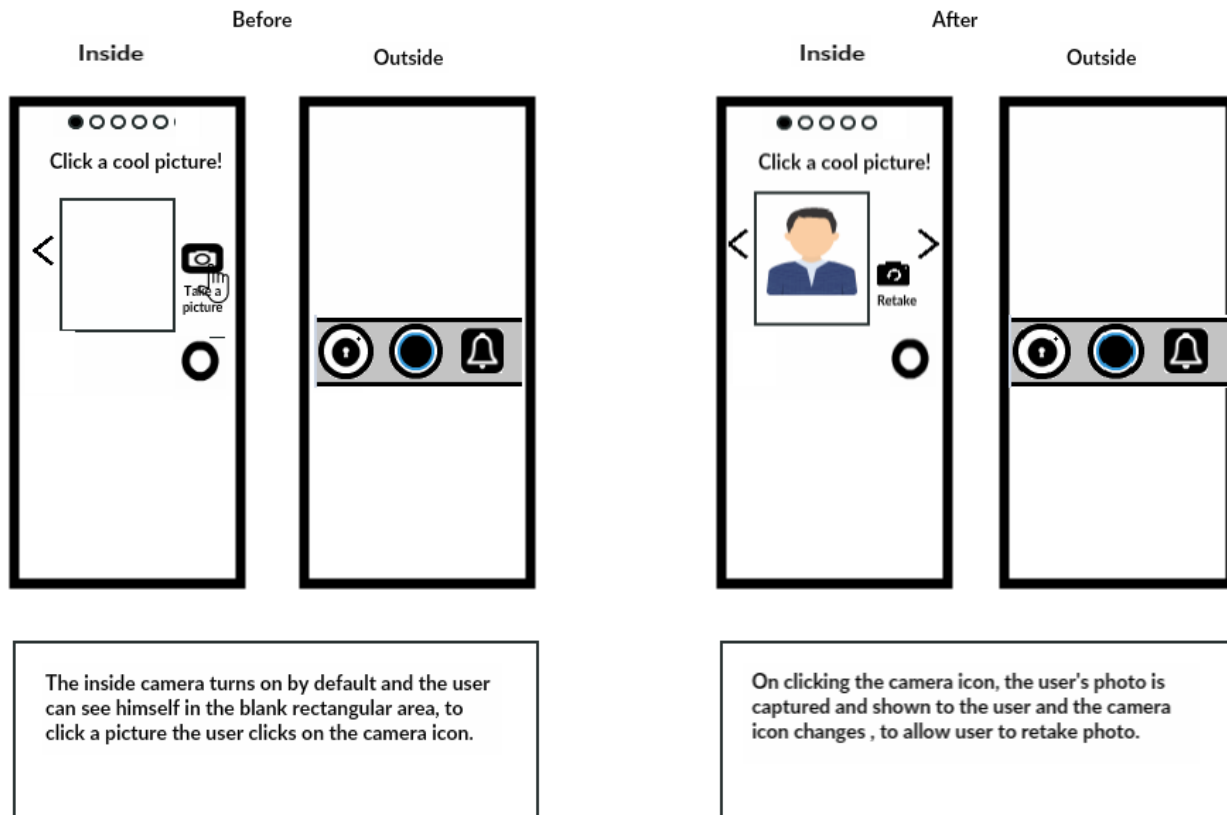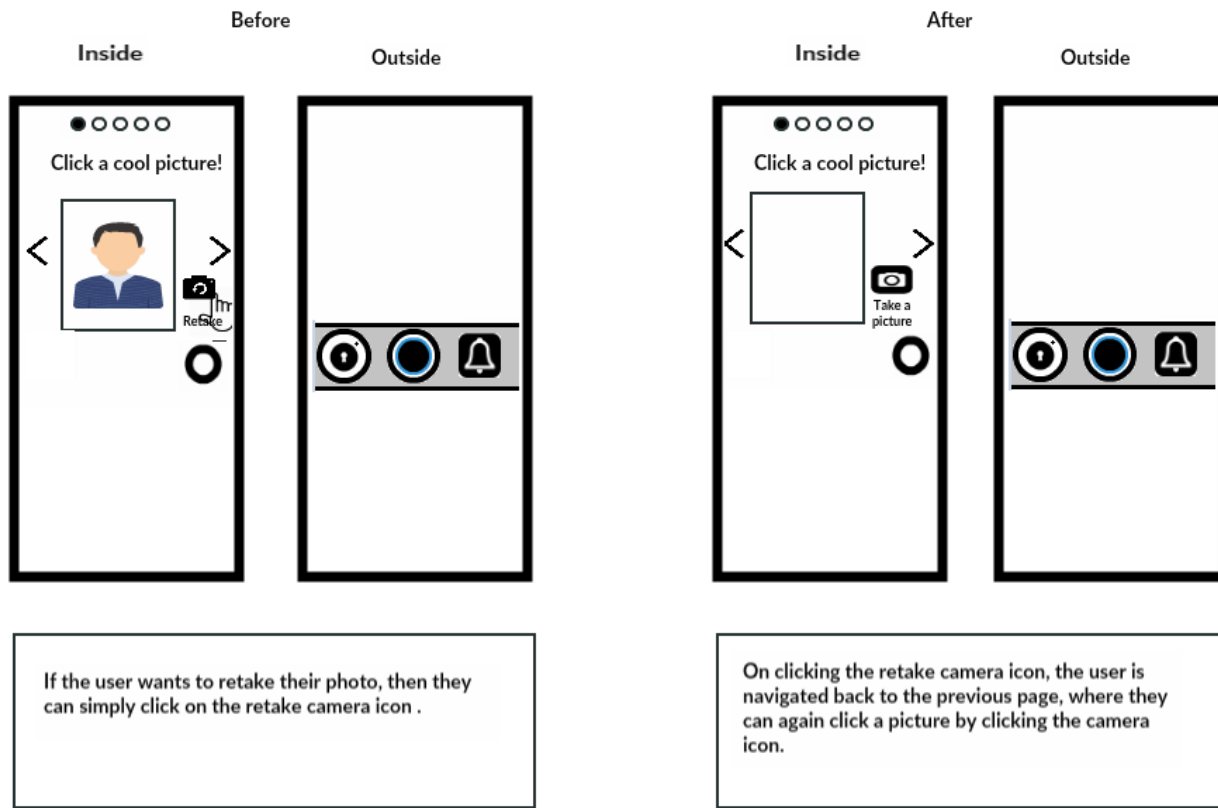On clicking the Setup button , the user is navigated to the one of the setup page i.e profile picture page.

Here the user gets to click his own picture which will help him identify himself whenever multiple users arrive at the door.
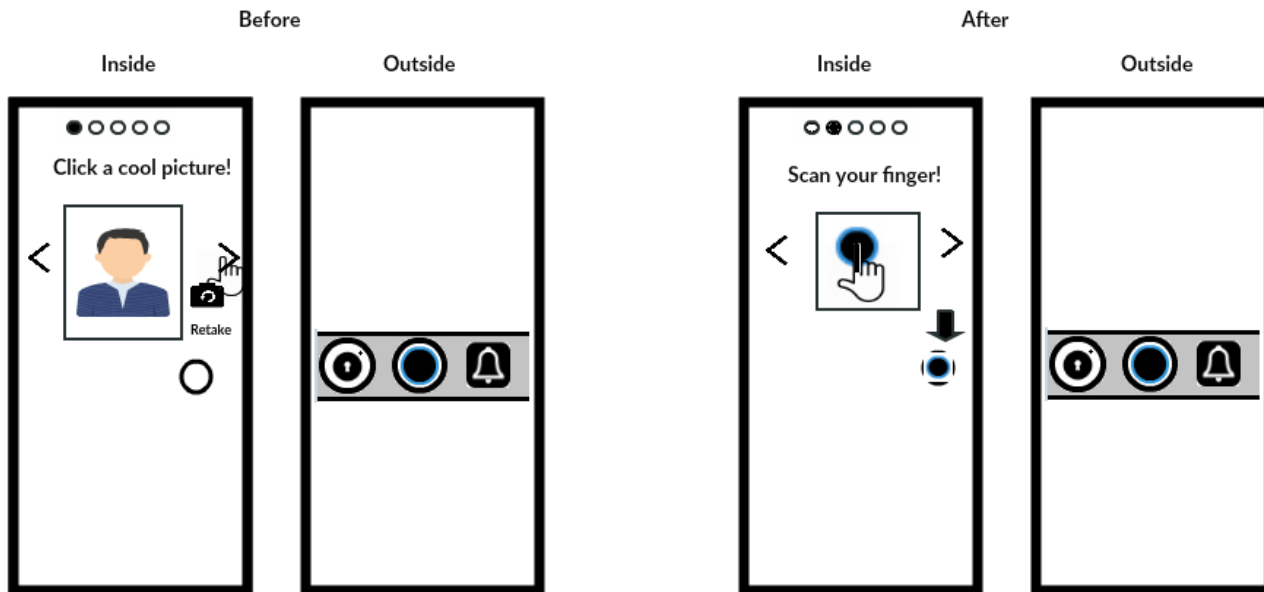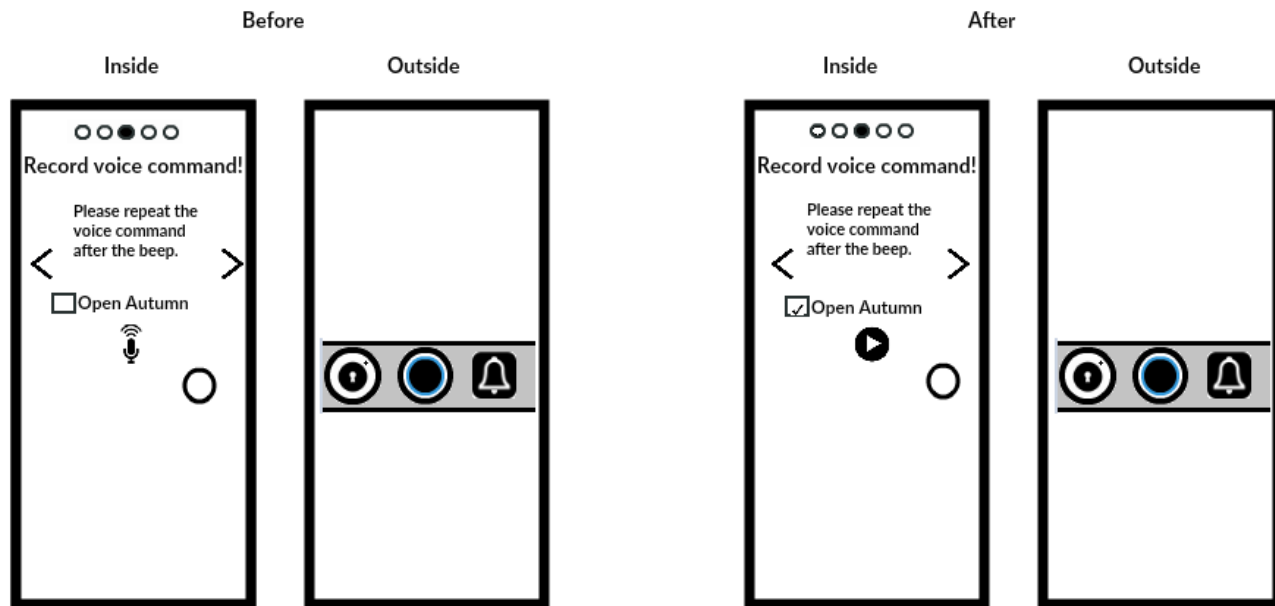
Setup step 1 – Click Picture

Before

Inside

Outside

After

Inside

Outside

Click a cool picture!

Take a picture

Click a cool picture!

Retake

The inside camera turns on by default and the user can see himself in the blank rectangular area, to click a picture the user clicks on the camera icon.

On clicking the camera icon, the user's photo is captured and shown to the user and the camera icon changes , to allow user to retake photo.

Step1 cont. Retake picture

Before

Inside   **Outside**

● ○ ○ ○ ○

Click a cool picture!

Retake

After

Inside   **Outside**

● ○ ○ ○ ○

Click a cool picture!

Take a
picture

If the user wants to retake their photo, then they can simply click on the retake camera icon.

On clicking the retake camera icon, the user is navigated back to the previous page, where they can again click a picture by clicking the camera icon.

Setup step 2 – Scan finger

Before

Inside

● ○ ○ ○ ○

Click a cool picture!

‹ › Retake

○

Outside

⊙ ⬤ 🔔

After

Inside

○ ● ○ ○ ○

Scan your finger!

‹ ›

Outside

⊙ ⬤ 🔔

On clicking the right arrow , the user is navigated to the next page where they provide their finger scan.

The inside door knob has a shutter which opens up and is the finger scanner for the inside. The box shows the user a pictorial description of how and where to scan finger. An arrow is shown too to indicate the finger print scanner.

Setup Step 3 – Record voice command

Before

Inside

Record voice command!

Please repeat the voice command after the beep.

☐ Open Autumn

Outside

After

Inside

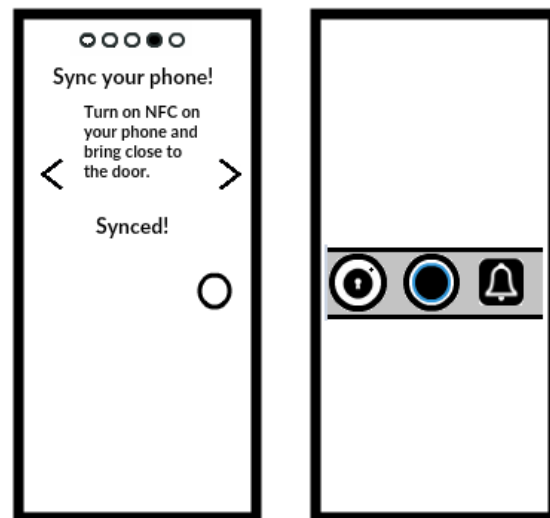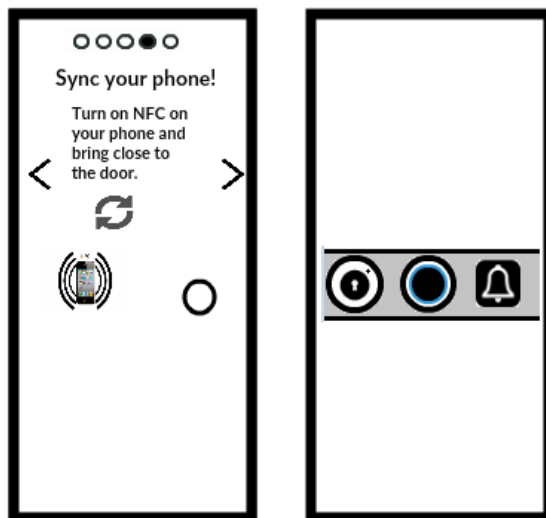Record voice command!

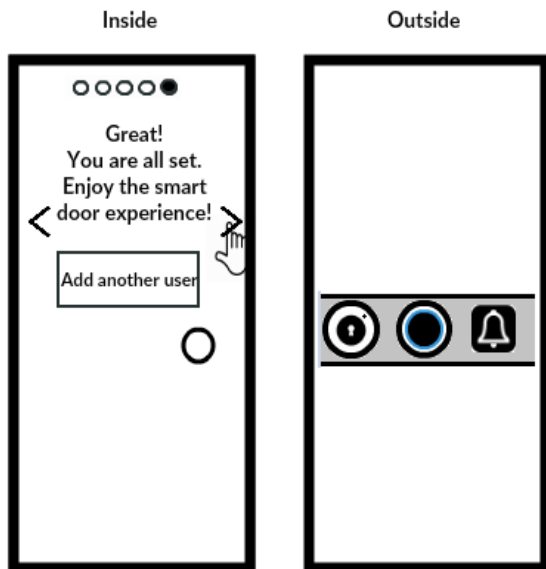Please repeat the voice command after the beep.

☑ Open Autumn

Outside

On this menu the user will record their voice command to open and close the door from inside. Voice commands will work only for locking and unlocking the door from inside. The user will repeat the command which the door will play and this will be recorded.

After some 5 secs on landing to this menu, the door plays the audio and asks the user to repeat the voice command. The user's voice is recorded and the microphone icon is changed to the play icon to replay and record his voice again. If same voice command is recorded then the check box is checked.

Setup Step 4 – Sync Phone

Before

Inside

○○○●○

Sync your phone!

Turn on NFC on
your phone and
bring close to
the door.

Outside

After

Inside

○○○●○

Sync your phone!

Turn on NFC on
your phone and
bring close to
the door.

Synced!

Outside

On this menu the user will record their voice command to open and close the door from inside. Voice commands will work only for locking and unlocking the door from inside. The user will repeat the command which the door will play and this will be recorded.

Once the phone is synced the syncing icon disappears and the user is notified that their phone is synced and they can proceed to the next menu.

Setup Step 5 – End setup or Add another user

Before

Inside

○○○○●

Great!
You are all set.
Enjoy the smart
‹ door experience! ›

Add another user

○

Outside

Inside

03/18/2016
06:00 PM   ☁   86 F

Outside

03/18/2016   06:00 PM

1500 B

The user set up is done and they have two options,
either to go ahead and enjoy /explore the smart
door or set up another user.
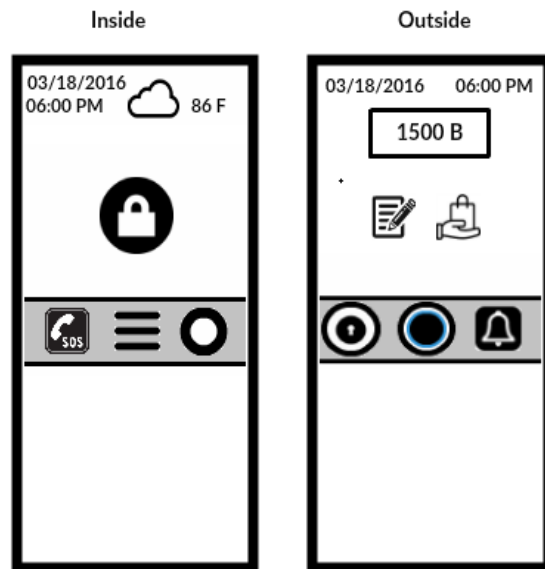
On clicking the right arrow key, the user main door
layout is shown to the user. If the user clicks on
the 'add another user button', then they are
redirected to the first menu of the setup from
where they can proceed further.

Main Door Layout

Before

Inside

03/18/2016
06:00 PM   86 F

Outside

03/18/2016   06:00 PM

1500 B
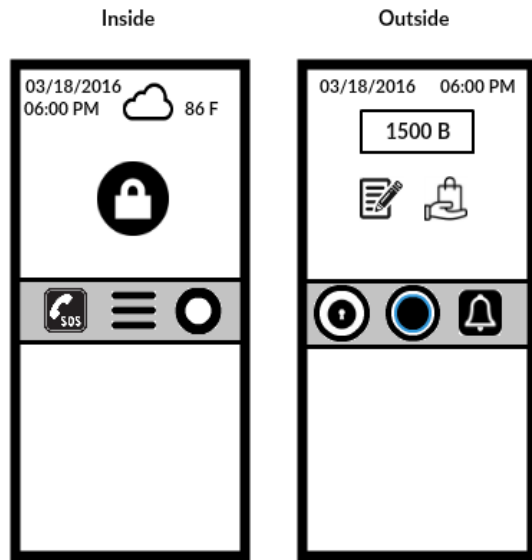
This is the main layout of the system. It contains a multitude of icons for performing different tasks, which will be discussed in the subsequent sections. We have here icons for calling emergency, menu and locking/unlocking the door on the inside of the door.

After

Inside

03/18/2016
06:00 PM   86 F

Outside

03/18/2016   06:00 PM

1500 B
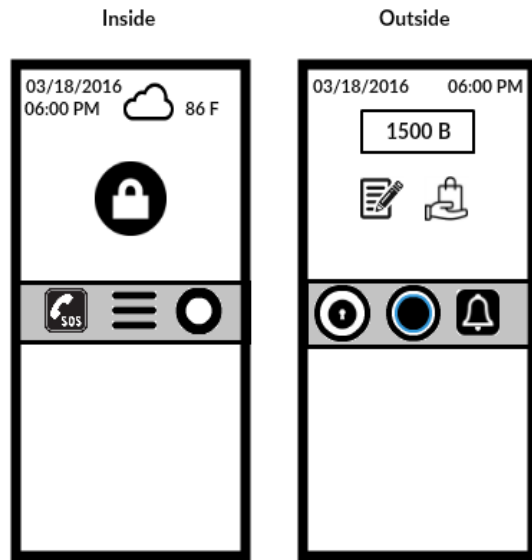
As shown in the above diagram, we have icons for ringing a door bell, writing a message & delivering a parcel on the outside of the door. We also have a physical finger print scanner and the door knob with keyhole.

Physical Unlock using Key

Before

Inside

03/18/2016
06:00 PM ☁ 86 F

🔒

📞SOS ≡ ○

Outside

03/18/2016   06:00 PM

1500 B

📝 🤚

🔒

◉ ⦿ 🔔

👆
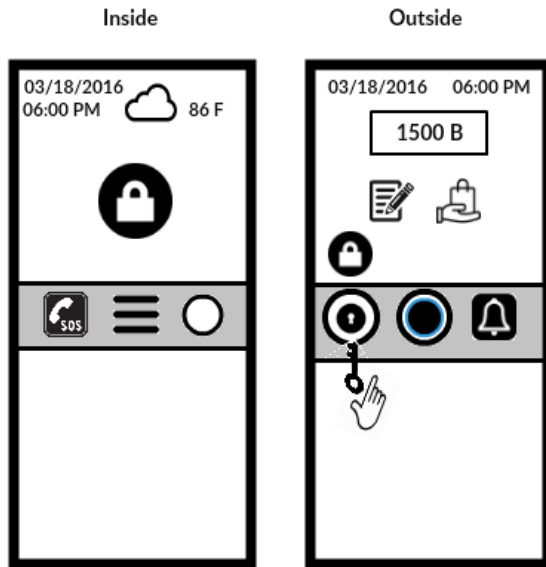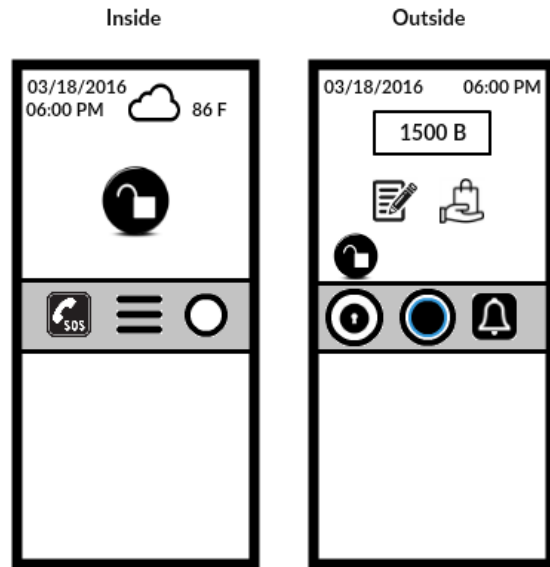
In this sketch, the person on the outside of the door can use the key to open the door using the conventional door opening mechanism.

After
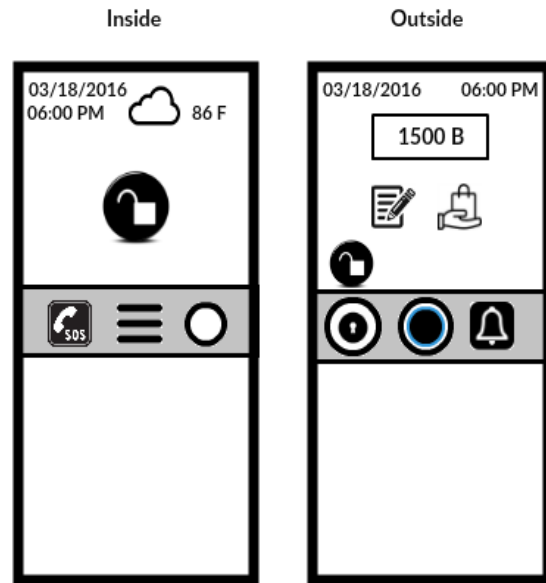
Inside

03/18/2016
06:00 PM ☁ 86 F

🔓

📞SOS ≡ ○

Outside

03/18/2016   06:00 PM

1500 B

📝 🤚

🔓

◉ ⦿ 🔔

As shown in this digital sketch, the user when opens the door using a key then, the lock icon inside changes to the unlock icon. Also after the door is unlocked, in order to show the outside user the state of the system, an icon is displayed just above the door knob.

Finger Print Scan to Unlock

Before
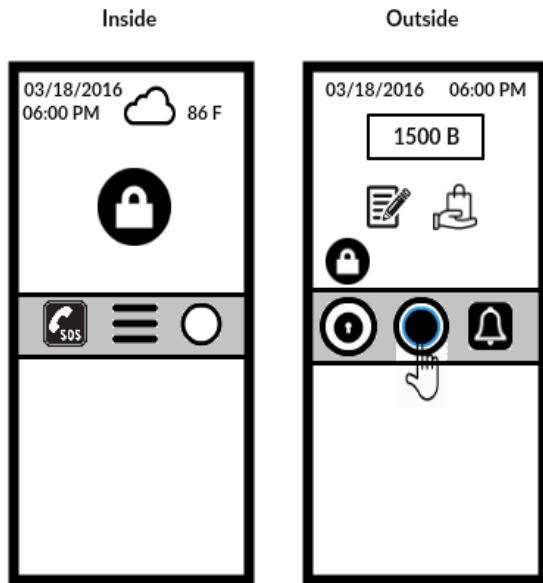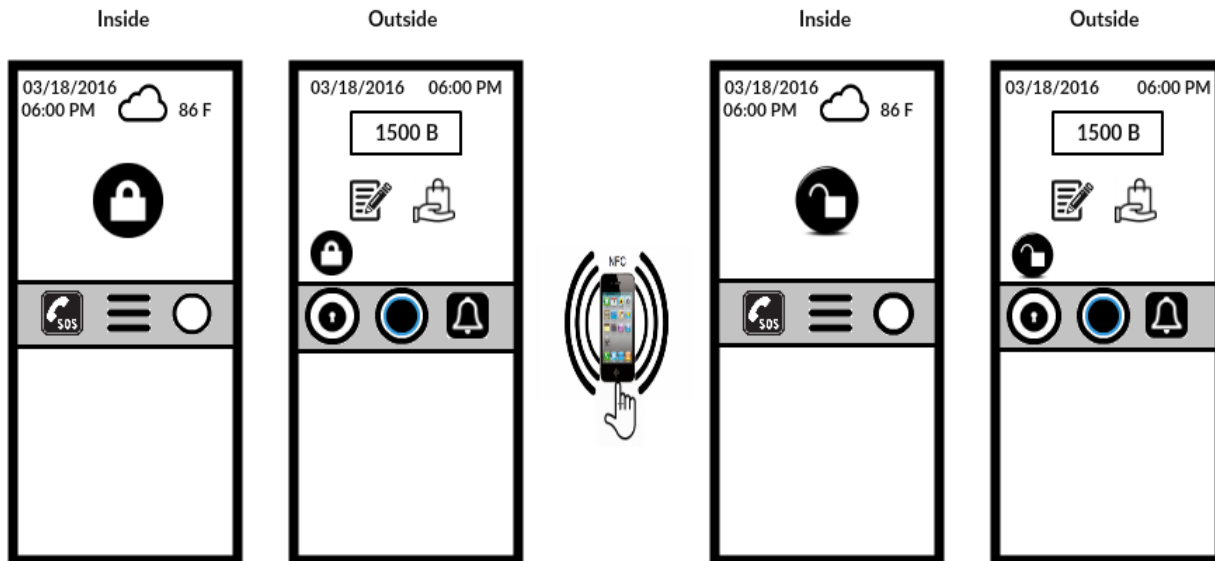
Inside   Outside

After

Inside   Outside

In this sketch, the person on the outside of the door is using his/her finger prints to open the door. Now, if the finger print matches with on of the pre-defined set of finger prints embedded in the system then the door opens as shown in the above diagram.

As shown in this digital sketch, the resident when keeps his finger on the finger print scanner, the door opens which is displayed by the unlock icon just above the door knob.

Invalid finger print scan

Before
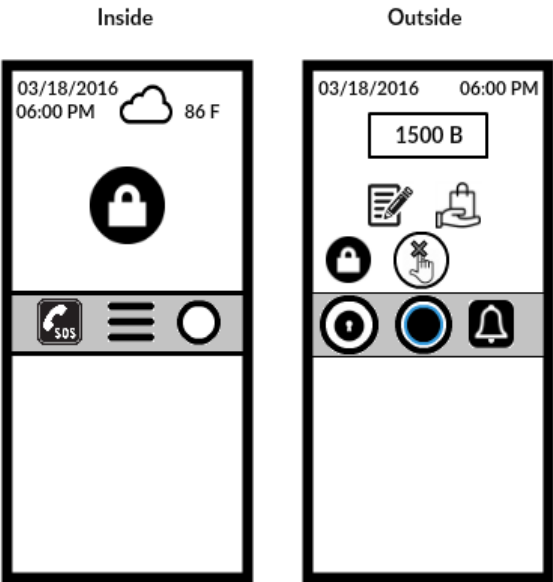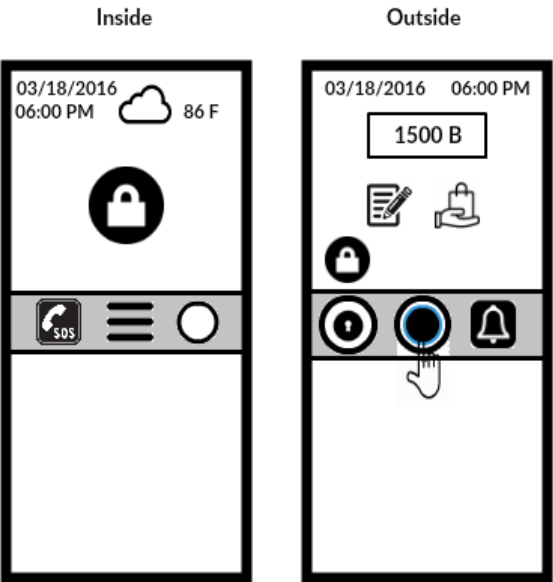
Inside

03/18/2016
06:00 PM — 86 F

Outside

03/18/2016   06:00 PM

1500 B

After

Inside

03/18/2016
06:00 PM — 86 F

Outside

03/18/2016   06:00 PM

1500 B

In this sketch, the person on the outside of the door is using his/her finger prints to open the door. Now, if the finger print does not match with any of the pre-defined set of finger prints embedded in the system then the door does not open and Finger print entry attempt fails.

As shown in this digital sketch, a person when keeps his finger on the finger print scanner, the door does not open which is displayed by the lock icon just above the door knob and he is also displayed an invalid attempt icon just above the finger print scanner.

Unlocking door by phone NFC

Before

Inside   Outside

Inside	Outside
03/18/2016 06:00 PM ☁ 86 F	03/18/2016 06:00 PM
🔒	1500 B
SOS ≡ ○	◎ ● 🔔

After

Inside   Outside

Inside	Outside
03/18/2016 06:00 PM ☁ 86 F	03/18/2016 06:00 PM
🔓	1500 B
SOS ≡ ○	◎ ● 🔔

In this diagram above, the person on the outside of the door is using his/her phone to open the door. Now, the connection using Near Field Communication (NFC) between the phone and the door is successful then the door lock opens as shown in the diagram.

As shown in this digital sketch, when a resident uses NFC to open the door the unlocked state of the system is shown by the unlock icon just above the knob on the door.

Unlocking door by clicking doorbell icon

Before

Inside


```
03/18/2016
06:00 PM   ☁   86 F

🔒

🔓
📞SOS  ☰  ○
```

Outside


```
03/18/2016    06:00 PM

1500 B

📝  🛍️
🔓
◉  ⬤  🔔
                👆
```

After

Inside


```
03/18/2016
06:00 PM   ☁   86 F

🔒

🔓
📞SOS  ☰  ○
```

Outside


```
03/18/2016    06:00 PM

1500 B

📝  🛍️
🔓
◉  ⬤  🔔
```
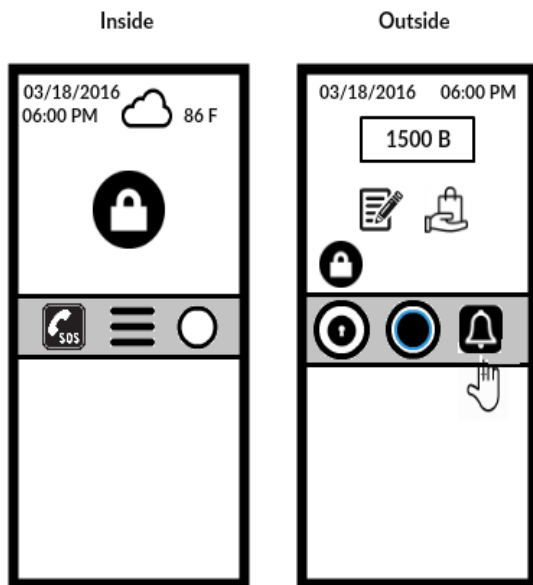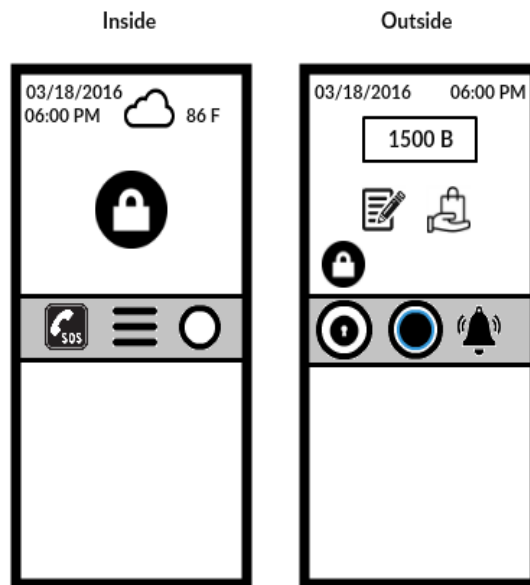
In this sketch, when the user taps on the door bell the door bell tone set by the user is heard. Also, the icon of the door bell changes to the ringing icon.

As shown in this digital sketch, the door bell icon has changed to a different one to represent the ringing state of the system.

Unlocking door by clicking the Lock icon

Before

Inside

03/18/2016
06:00 PM   86 F

Outside

03/18/2016   06:00 PM

1500 B

After

Inside

03/18/2016
06:00 PM   86 F

Outside

03/18/2016   06:00 PM

1500 B
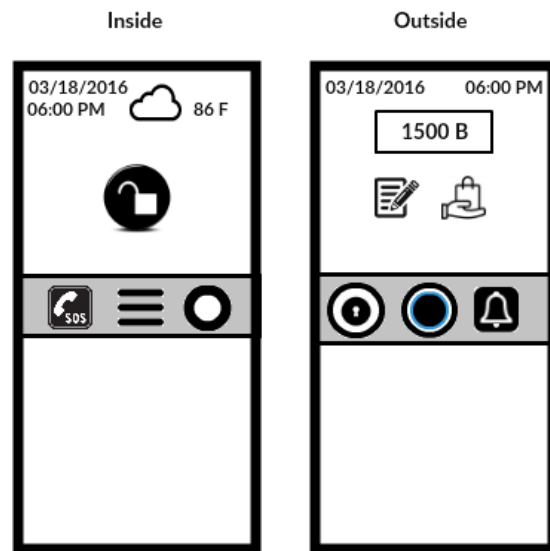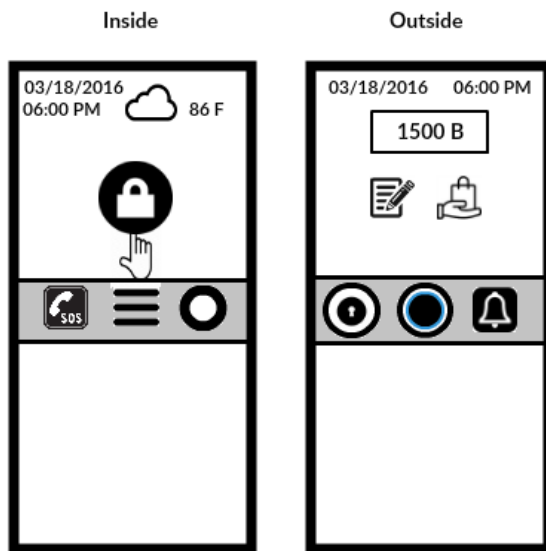
In this sketch, the lock icon is present at the center of the door horizontally. When this icon is pressed from the inside of the door it opens the door.

As shown in the above diagram, we can see that the lock icon changes to the unlock icon on the inside of the door. Here, one important thing is that the state which shows whether the door is locked or unlocked is not displayed on the outside of the door until and unless a person approaches the door.

Locking door by clicking the unlock icon

Before

Inside

03/18/2016
06:00 PM   86 F

Outside

03/18/2016   06:00 PM

1500 B

After

Inside

03/18/2016
06:00 PM   86 F

Outside

03/18/2016   06:00 PM

1500 B
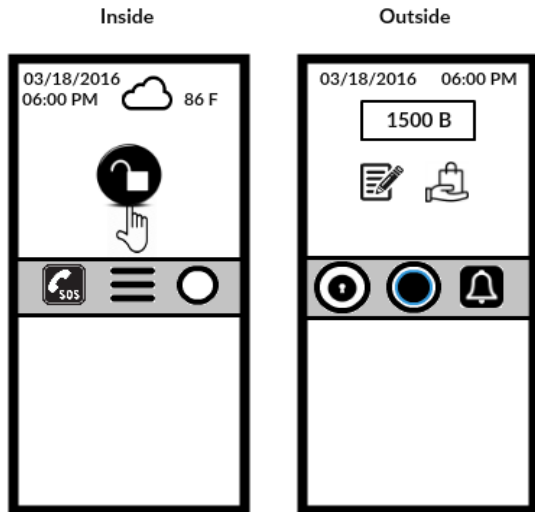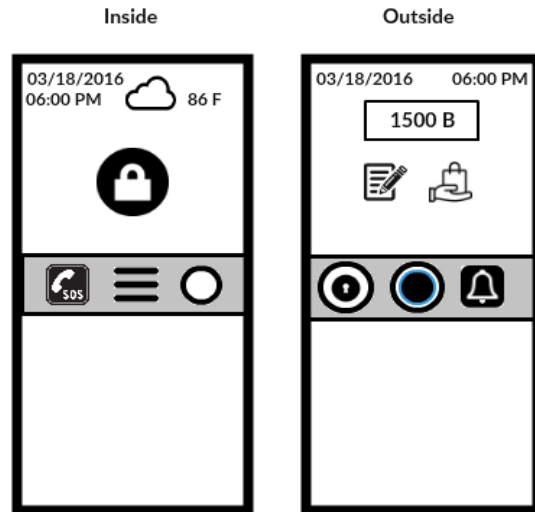
This sketch demonstrates the concept of locking the door by clicking the unlock icon. In the previous sketch. we demonstrated the locking of the door which was just the reverse process.

As shown in the above diagram, we can see that the unlock icon changes to the lock icon on the inside of the door and also there is no effect on this on the outside of the door as explained in the previous diagram.

Write message from outside

Before

Inside   **Outside**

03/18/2016 06:00 PM   03/18/2016   06:00 PM
06:00 PM   86 F

1500 B
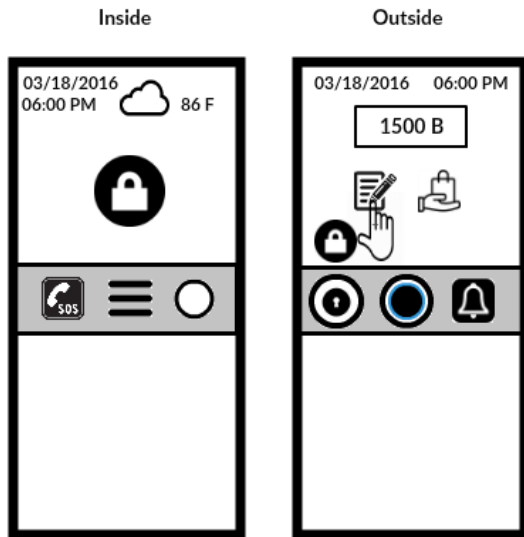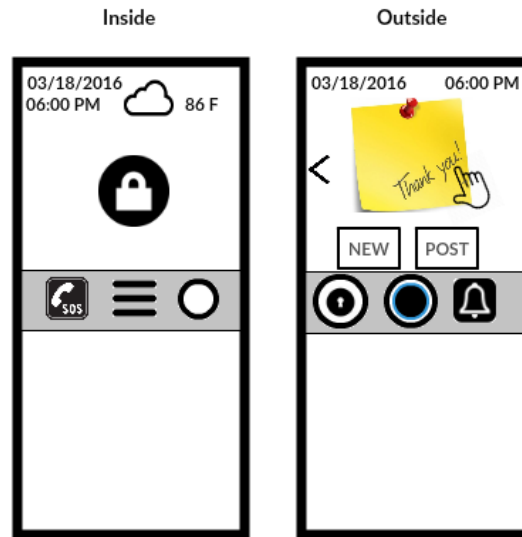
When the user clicks on the write message icon, on the outside of the door, a new window appears on the screen. The visitor can write a message on this screen on the page displayed.

After

Inside   **Outside**

03/18/2016 06:00 PM   03/18/2016   06:00 PM
06:00 PM   86 F

Thank you!

NEW   POST

As shown in this diagram, the visitor can write the message using his hand and after writing the message he/she can click on the Post Icon to post the message to the inside of the door so that the person who is inside can read the message from inside.

Write message from outside (Cont.)
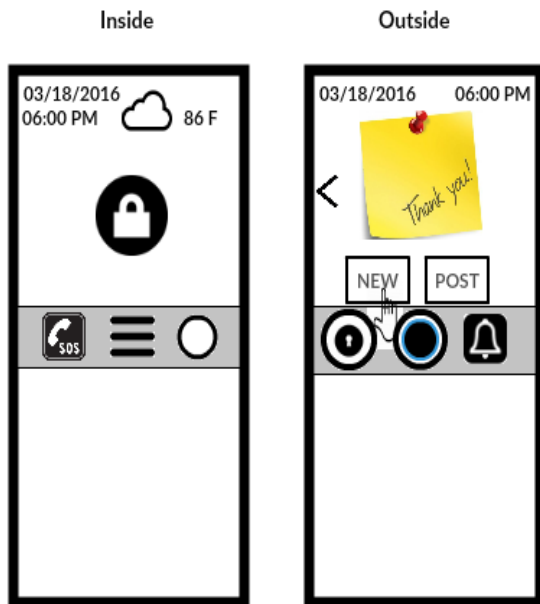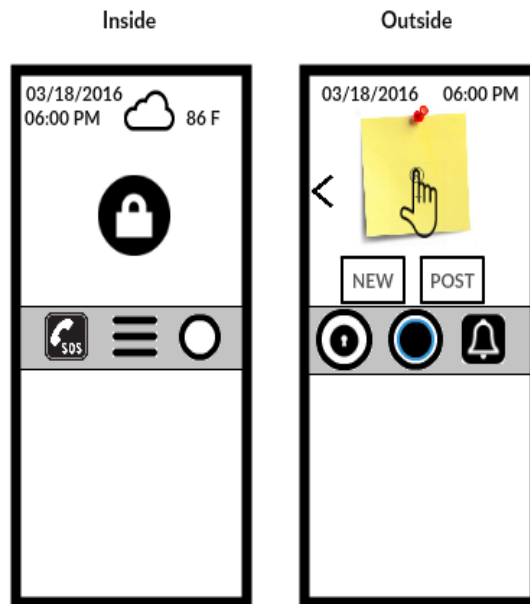
When the user clicks on the write message icon, inside the write message window, while writing the message a visitor may decide to write a new message. He can click on the New icon to open a new window to write a new message without posting the previously written message.

As shown in this diagram, when the visitor clicks on the New icon a new writing template opens up on the screen. The visitor can type write the message using his/her hand and then can click on the Post click to post the message to the inside of the door.

Write message from outside back icon

Before

Inside

03/18/2016
06:00 PM ☁ 86 F

Outside

03/18/2016   06:00 PM

Thank you!

NEW   POST

After

Inside

03/18/2016
06:00 PM ☁ 86 F

Outside

03/18/2016   06:00 PM

1500 B
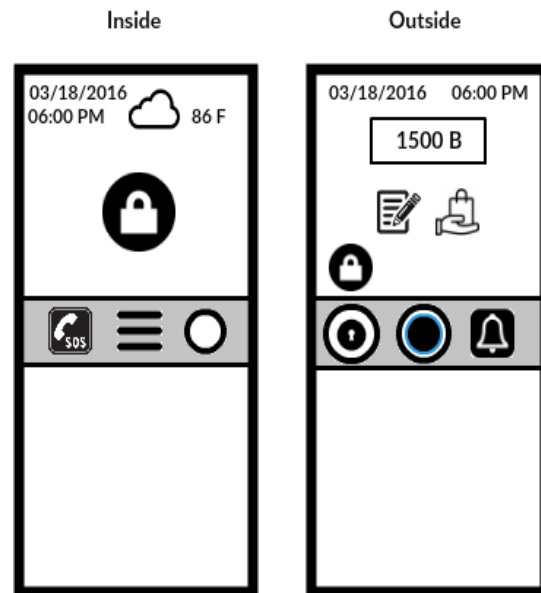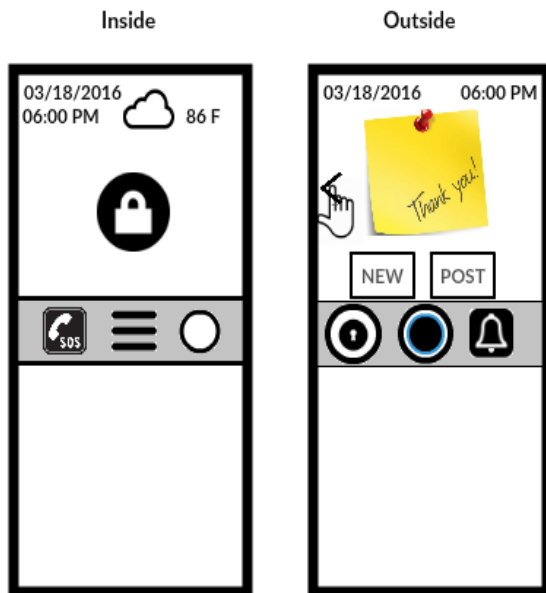
When the user clicks on the back icon in the write message window on the outside of the door, then the visitor is navigated to the main screen.

As shown in this diagram, the main screen with 2 icons for writing a message and delivering a package are displayed after pressing the back icon.

Deliver package

Before

Inside

| 03/18/2016 06:00 PM | ☁ | 86 F |

Outside

03/18/2016   06:00 PM

1500 B

After

Inside

| 03/18/2016 06:00 PM | ☁ | 86 F |

Outside

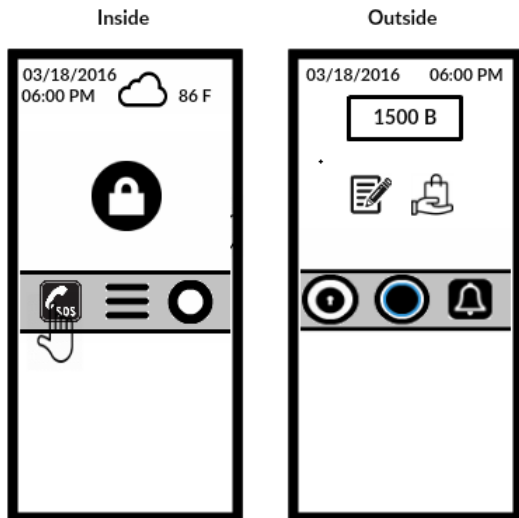03/18/2016   06:00 PM

1500 B
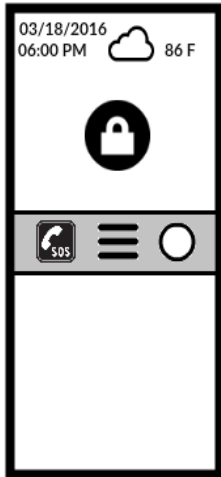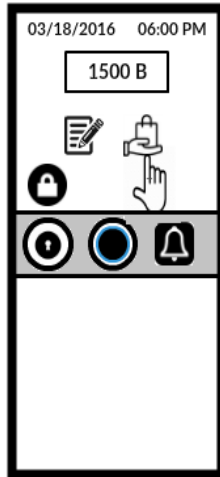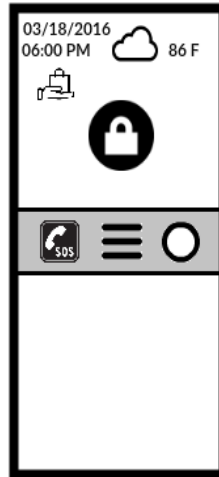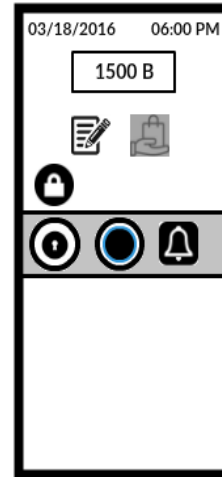
In this sketch, the person on the outside of the door is clicking on the Deliver Package Icon. When someone wants to deliver a package then he can click on this button to make it highlighted.

As shown in this digital sketch, when a person clicks on this icon it gets highlighted and a notification is displayed on the inside of the door about a package being delivered from outside. Also, a tone is displayed after clicking this icon which is different from the tone of the door bell. Therefore, the user will be able to differentiate between the doorbell and a package delivery tone.

Emergency calling

Inside

03/18/2016
06:00 PM ☁ 86 F

Outside

03/18/2016   06:00 PM

1500 B

Inside

03/18/2016
06:00 PM ☁ 86 F
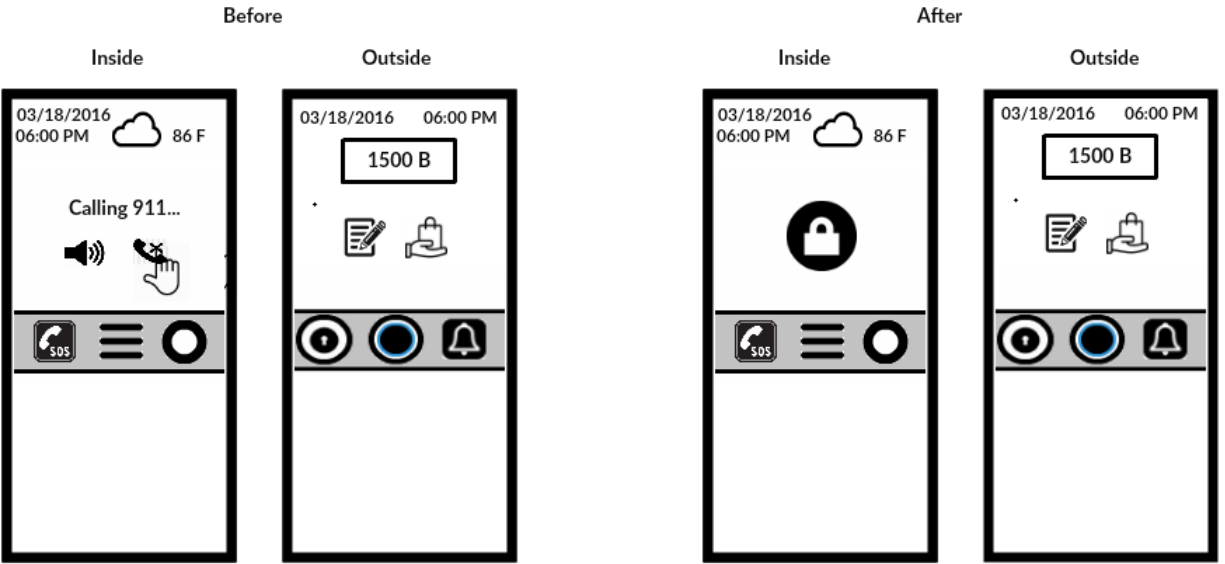
Calling 911...
🔊 📞✕

Outside

03/18/2016   06:00 PM

1500 B
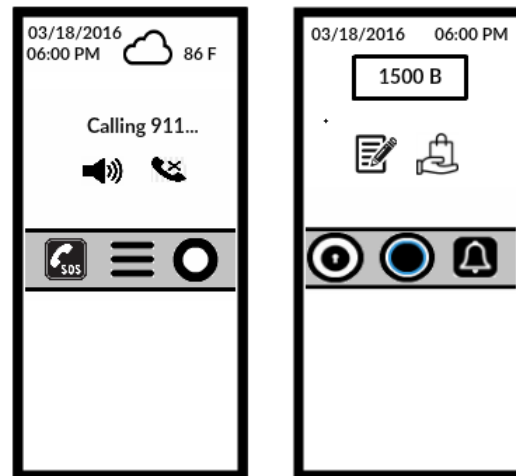
This sketch depicts the behavior of the emergency SOS icon. It is a clickable icon and user can click on it to call the ambulance, police and fire station.

On clicking the Emergency icon, an automatic call is made to 911 for the user to report emergency . He can mute/ unmute and hang up the call.

Emergency call hang up

Before

Inside

03/18/2016
06:00 PM ☁ 86 F

Calling 911...

🔊 📞

SOS ☰ ⬤

Outside

03/18/2016   06:00 PM

1500 B

📝 🛍

⊙ ⬤ 🔔

After

Inside

03/18/2016
06:00 PM ☁ 86 F

🔒

SOS ☰ ⬤

Outside

03/18/2016   06:00 PM

1500 B

📝 🛍

⊙ ⬤ 🔔

Once the user talks to the emergency department, they can hang up the call by clicking on the hang up button.

On clicking the hang up icon, the call is disconnected and the user is back to the home screen.

First time user – Tool tip

Before

Inside   Outside

After
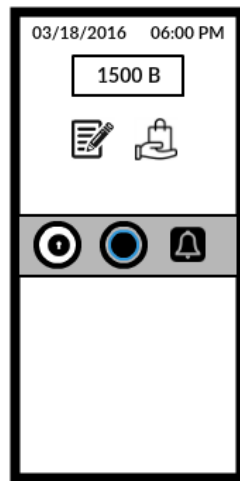
Inside   Outside
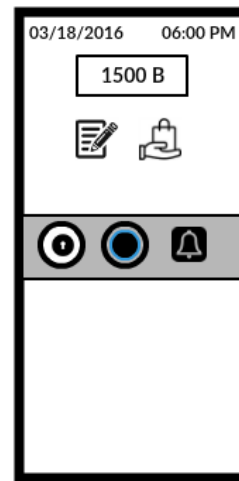
In this sketch, the concept of showing tool tips for the first time/novice user is displayed. When any user lands on this screen for the first time this tool tip is displayed for the purpose of helping the user to understand the usage of the system.

So when the clicks on the menu icon the given set of menu options appear on the screen as shown above.
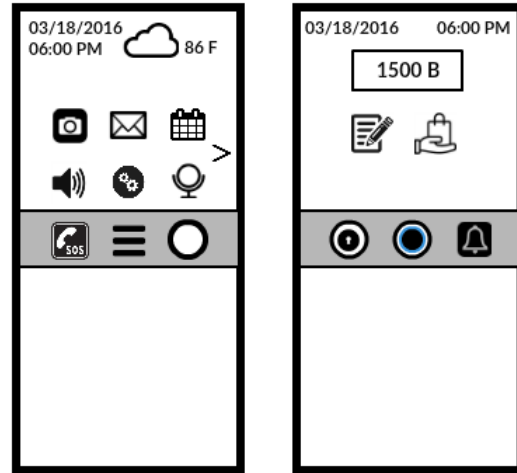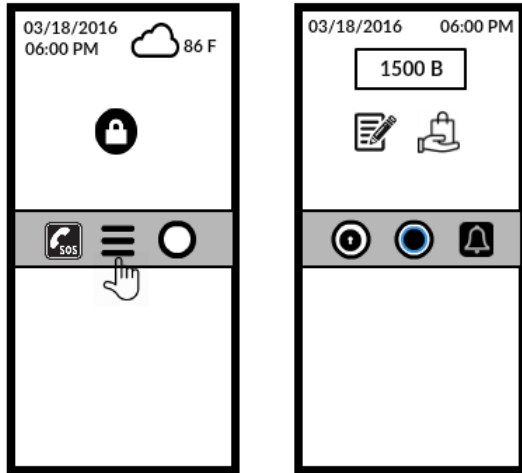
Menu Set 1

Before

Inside

| 03/18/2016 06:00 PM | ☁ 86 F |

🔒

[SOS] ≡ ○

Outside

| 03/18/2016 | 06:00 PM |

1500 B

📝 🛍

◉ ⦿ 🔔

This sketch shows the general layout of the inside door. The menu items are generally in a collapsed mode and the locked door can be seen by user at any point of time.

After

Inside

| 03/18/2016 06:00 PM | ☁ 86 F |

📷 ✉ 📅 >
🔊 ⚙ 🎙

[SOS] ≡ ○

Outside

| 03/18/2016 | 06:00 PM |

1500 B

📝 🛍

◉ ⦿ 🔔

This sketch shows how the menu items appear once the user clicks on the menu icon. The user can see a set of 6 menu items and a right arrow key to navigate to the next screen to view more menu items.

Inside Camera On/Off

Before
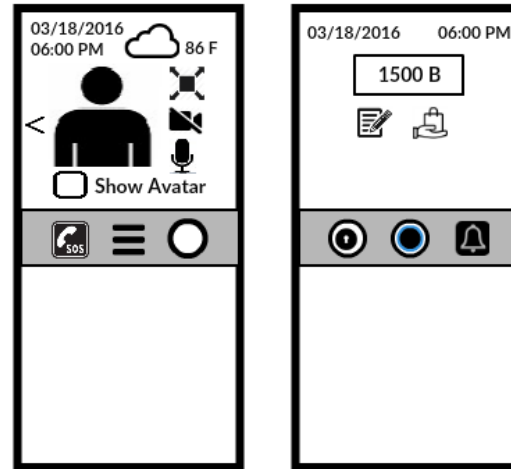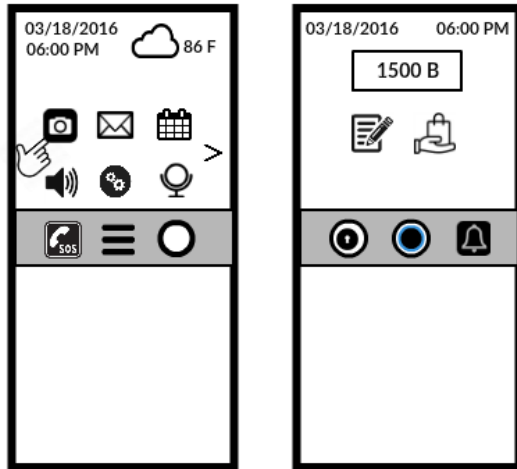
Inside

Outside

This sketch shows how the user can view any person who is standing outside the door by accessing the camera from inside. The camera icon is present in the first menu. On clicking it allows the inside user to view the vicinity surrounding the door.

After

Inside

Show Avatar

Outside

This sketch shows that how the camera from inside can access the view of outside door. Any person standing outside the door can be viewed by inside user with inside user having the flexibility to show the outside user their own image. The user gets an option to view the outside of door in full scree, turn on inside camera or show a default avatar to outside user.

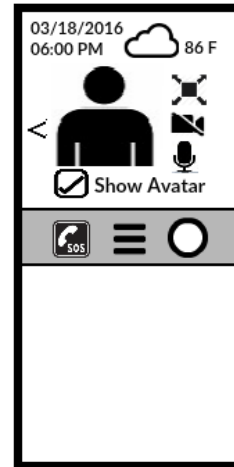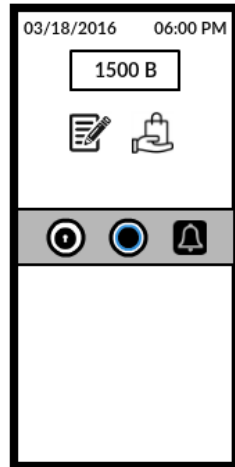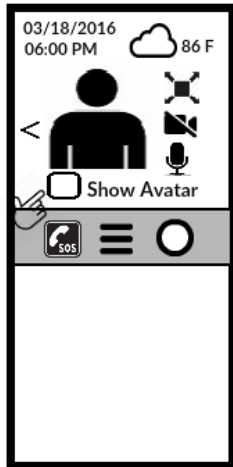# Inside camera On/Off (Show Avatar)

Before

Inside

Outside

After

Inside
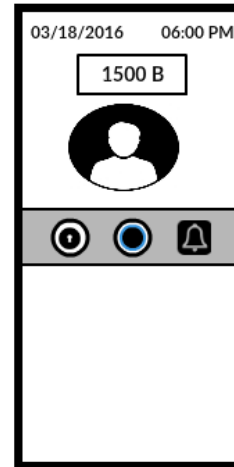
Outside

This sketch shows how the user can interact with the user icon without revealing their identity to the user. They can use a default avatar icon to show the outside user if they want to interact with them.

This sketch shows how an avatar icon appears once the inside user chooses to show the avatar to outside user. This avatar icon shows the outside user that the inside is active and can interact with the inside user while securing the inside users identity.
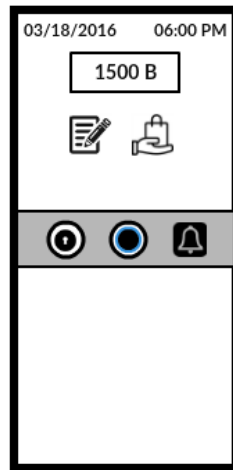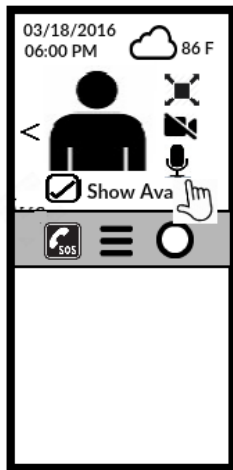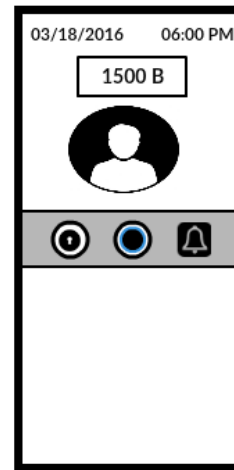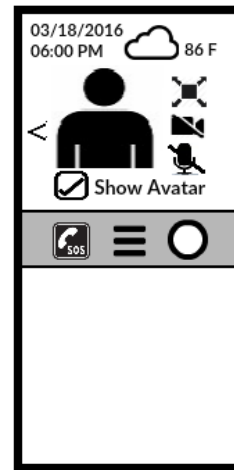
Inside speaker On/Off

Before

Inside

Outside

This sketch shows how the user can mute the sound for the outside user while interacting. The user may have their avatar image on or may be their image is displayed outside, and if the user wishes to mute the inside sound they can mute on the speaker icon in the panel.

After

Inside

Outside

This sketch shows that the sound is mute - so the outside user cannot listen to anything said by the inside user. This might be required by the user if the user wishes to mute the sound for sometime while they are interacting with outside user.
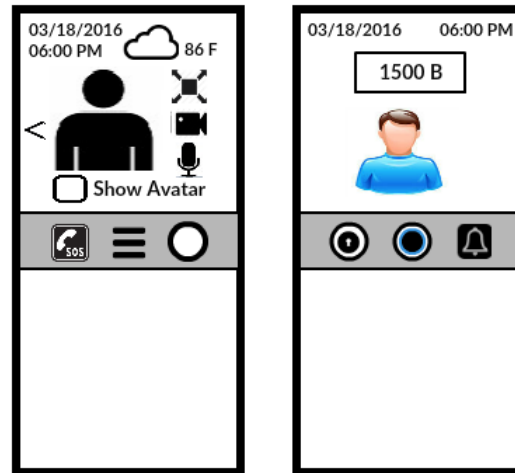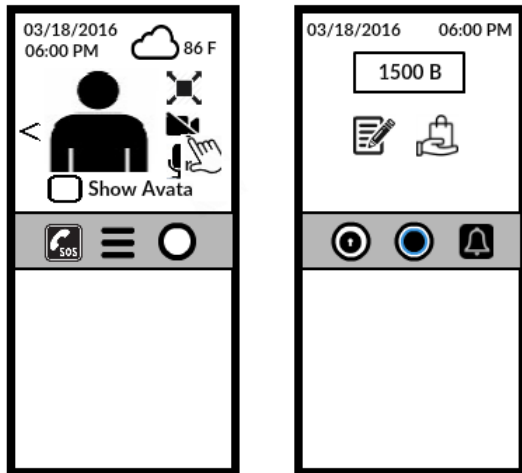
Inside camera On/Off(Inside user visible)

Before

After

Outside

Inside

Outside

03/18/2016
06:00 PM   ☁ 86 F
Show Avata
SOS

03/18/2016   06:00 PM
1500 B

03/18/2016
06:00 PM   ☁ 86 F
Show Avatar
SOS

03/18/2016   06:00 PM
1500 B

This sketch shows how the inside user can interact with outside user through the webcam. The inside if chooses to show their identity to outside user, can turn on the camera by clicking on the camera crossed icon to enable the camera.

This sketch shows how the outside user can see the inside user, if the inside user enables the camera. This is another way of interaction of inside user with outside user.
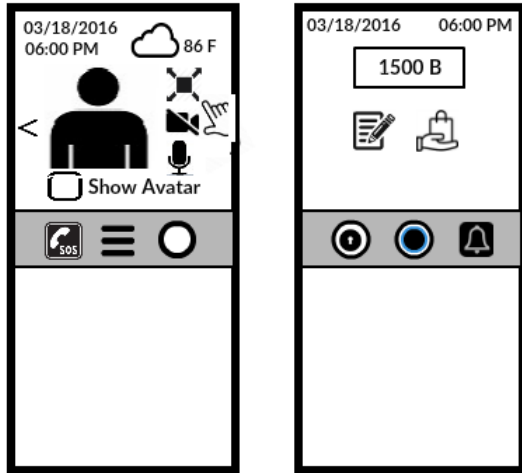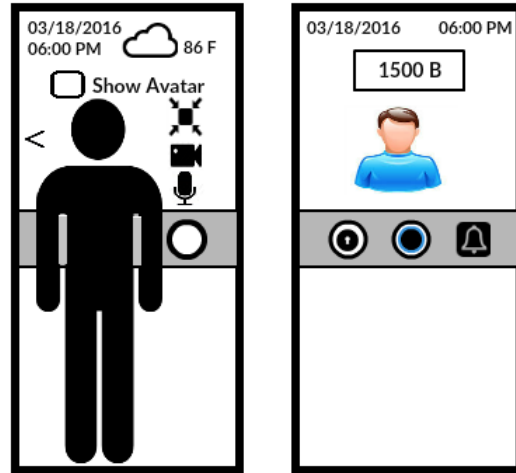
Full Screen Mode

Before | After

Before

Inside

03/18/2016
06:00 PM   86 F

Show Avatar

Outside

03/18/2016   06:00 PM

1500 B

After

Inside

03/18/2016
06:00 PM   86 F

Show Avatar

Outside

03/18/2016   06:00 PM

1500 B

This sketch shows how the inside user can view the outside users image in full screen on the inside door itself. The four cross arrow shows viewing the outside user in full screen mode

This sketch shows the full view of outside user on the inside door. The user can again return back to small screen by clicking on the cross arrow icon pointing to collapse the image.
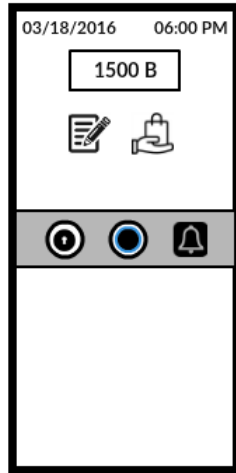
Read message inside

Before

Inside

03/18/2016
06:00 PM   86 F
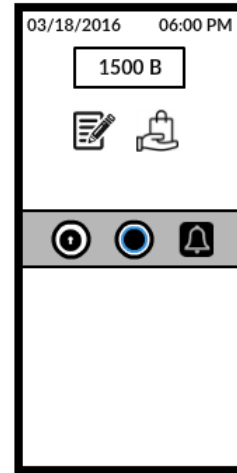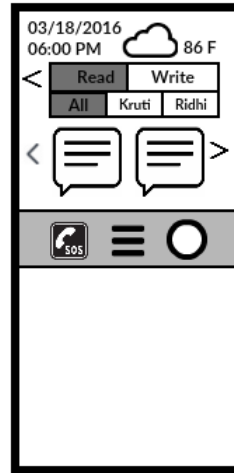
[SOS] ≡ ○

Outside

03/18/2016   06:00 PM

1500 B

This sketch shows how a user can read and write message. The user can click on Message Icon in the main menu to access the message screens

After

Inside

03/18/2016
06:00 PM   86 F

<   Read   Write
All   Kruti   Ridhi

<   >

[SOS] ≡ ○

Outside

03/18/2016   06:00 PM

1500 B

This sketch shows the message screen general layout. This opens up in read mode, displaying all general messages posted. A user can click on their name to access messages posted specifically for them
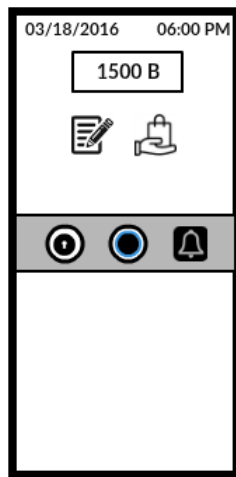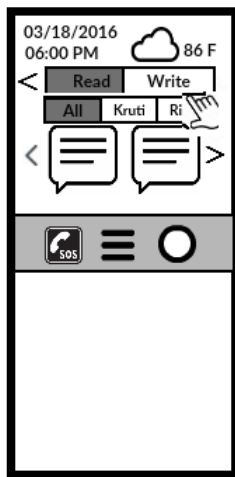
Write message from inside

Before

Inside	Outside

After

Inside	Outside

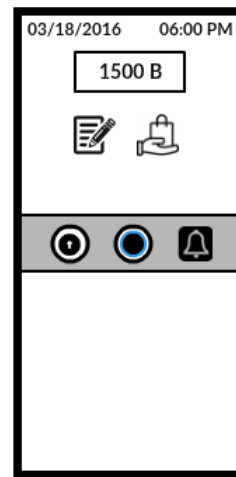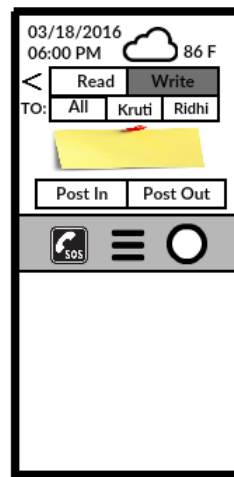This sketch shows how user can write the message. Once the user clicked on the Message icon in the menu, they can see the read and write tab with read as pre-selected. Now the user can click on write tab to leave a message inside or outside

This sketch shows the screen that appears to the user in order to post a message in or out. Also it allows to deliver message for specific registered users.

Post message outside from inside

Before

Inside

03/18/2016
06:00 PM ☁ 86 F

< | Read | Write |
| All | Kruti | Ridhi |

Thanks.. ✕

| Post In | Post Out |

[SOS] ≡ ◯

Outside

03/18/2016   06:00 PM

1500 B

📝 🤚

◉ ⬤ 🔔
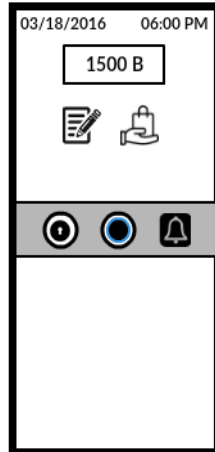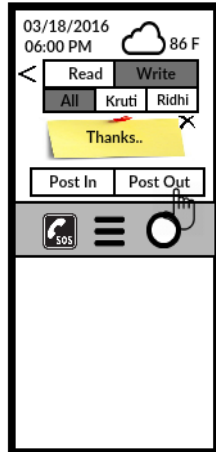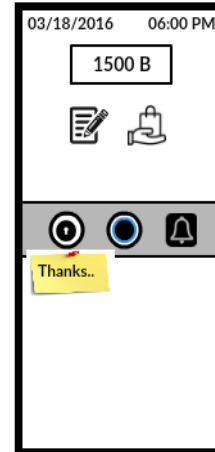
This sketch shows how a user can post a common message outside. The user can click on All and then select click on Post Out

After

Inside

03/18/2016
06:00 PM ☁ 86 F

📷 ✉ 📅 >
🔊 ⚙ 🎤

[SOS] ≡ ◯

Outside

03/18/2016   06:00 PM

1500 B

📝 🤚

◉ ⬤ 🔔

Thanks..

This sketch shows the message posted out by user appears on the outside door below the knob. This is a general message for any user visible to all users.

Calendar

Before

Inside

03/03/2016
06:00 PM   86 F

Outside

03/03/2016   06:00 PM

1500 B

After

Inside

Mar 03 2016
06:00 PM   86 F

Today's Schedule

02:00pm - Meeting

05:00pm - Shopping

07:00pm - Meet Peter

Outside

Mar 03 2016   06:00 PM

1500 B
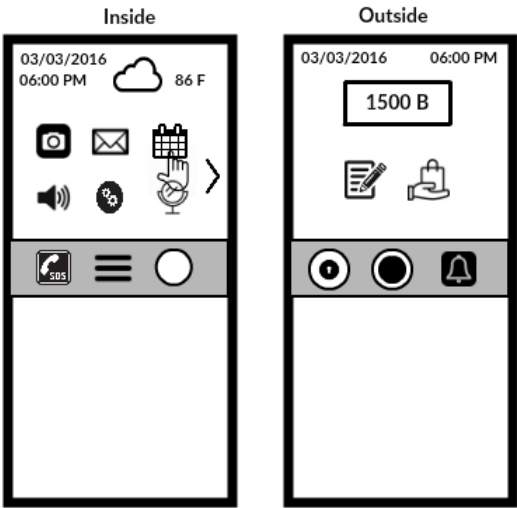
Clicking the calender icon in the menu opens the calender schedule for the current user.

The calender events of the current user are shown on the screen. The events of only the current day are shown.

Door bell mute/unmute
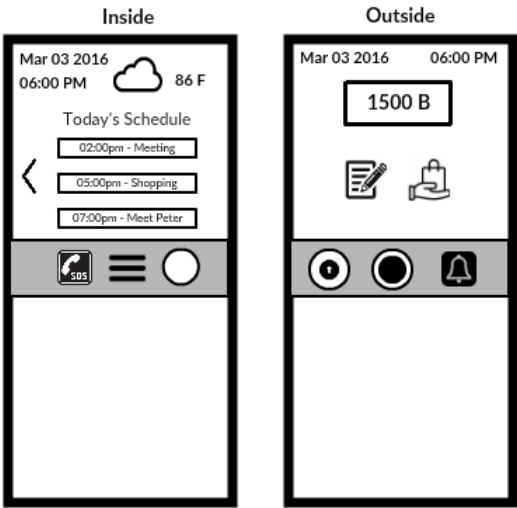
Before

After

Inside

Outside

Inside

Outside
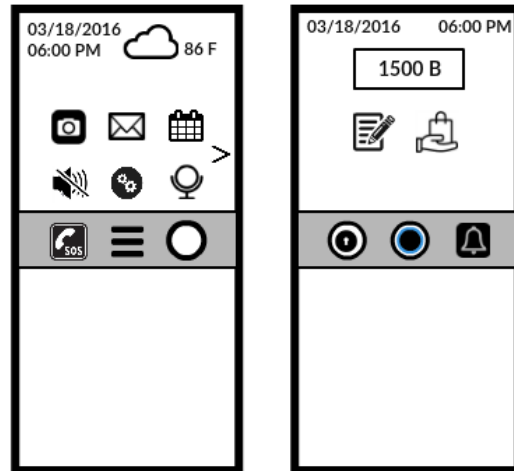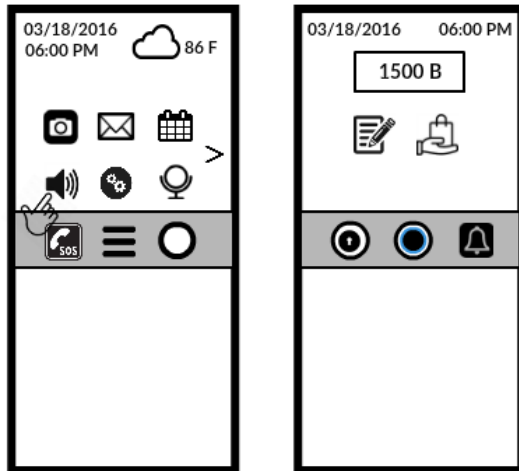
This sketch shows how the user can mute the doorbell sound. This feature is useful in case the user does not wishes to get disturbed by any user ringing the bell

This sketch shows that after the user mutes the doorbell, the sound icon in the menu is changed from normal sound icon to mute icon and in the top header the user can see the bell with the mute sign - reminding the user that the doorbell is in mute condition. The user can unmute the bell from the menu by clicking the mute sound icon.

Settings icon

Inside

03/03/2016
06:00 PM   86 F

Outside

03/03/2016   06:00 PM

1500 B
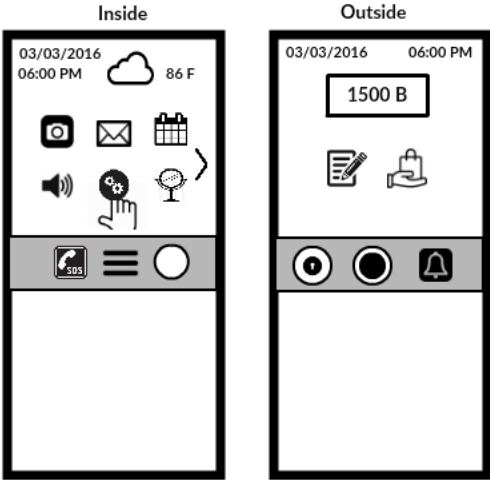
Touching the settings icon in the menu opens up the settings panel with icons depicting different settings.

Inside

03/03/2016
06:00 PM   86 F

Outside

03/03/2016   06:00 PM

1500 B

DD/
MM
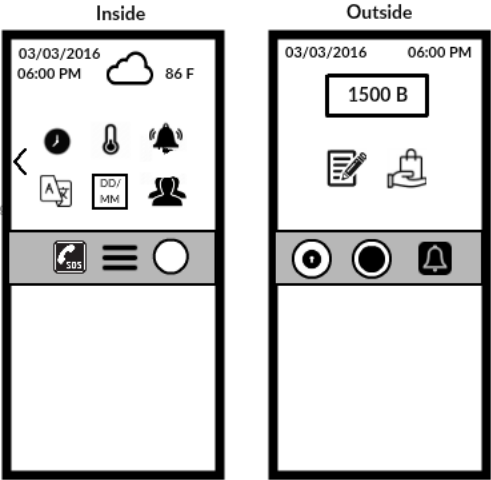
The settings panel is displayed. It contains icons for time format, temperature units, language, date format and doorbell tone.

Settings – Time format

Before

Inside

03/03/2016
06:00 PM   86 F

Outside

03/03/2016   06:00 PM

1500 B
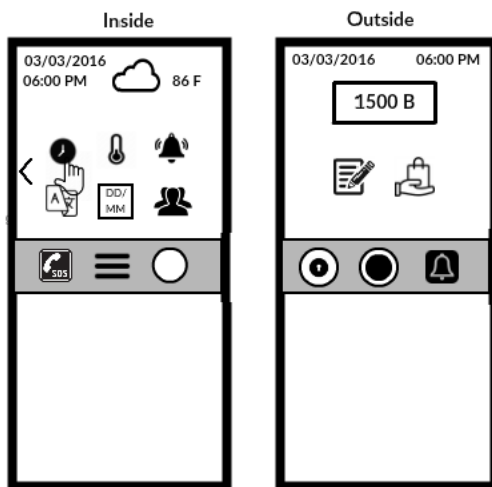
Touching the time clock icon in the menu opens up the time format settings panel with icons depicting different time formats.

After

Inside

03/03/2016
06:00 PM   86 F

12   24

06:00 PM   18:00

Outside

03/03/2016   06:00 PM

1500 B
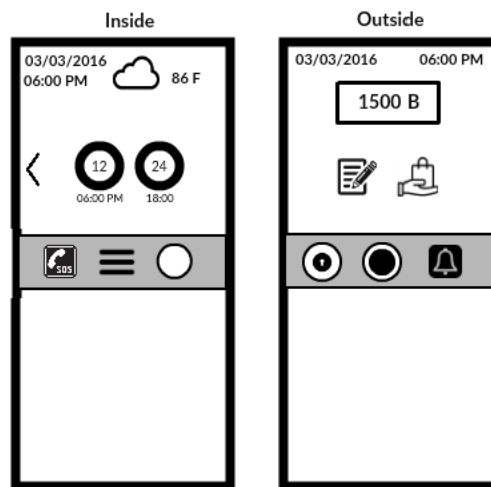
The user can choose between 12 hour and 24 hour time formats.

Settings – Time format (Cont.)

Before

Inside

03/03/2016
06:00 PM ☁ 86 F

12   24

06:00 PM

SOS ≡ ○

Outside

03/03/2016   06:00 PM

1500 B

📝 🛍

◉ ● 🔔
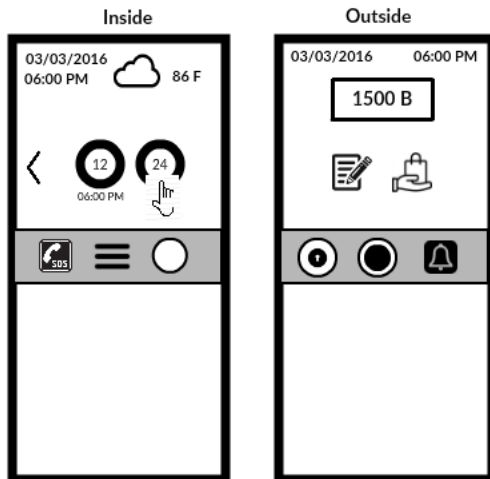
The user selects the 24 hour time format.

After

Inside

03/03/2016
18:00 ☁ 86 F

🕐 🌡 🔔
A文 DD/MM 👥

SOS ≡ ○

Outside

03/03/2016   06:00 PM

1500 B

📝 🛍

◉ ● 🔔
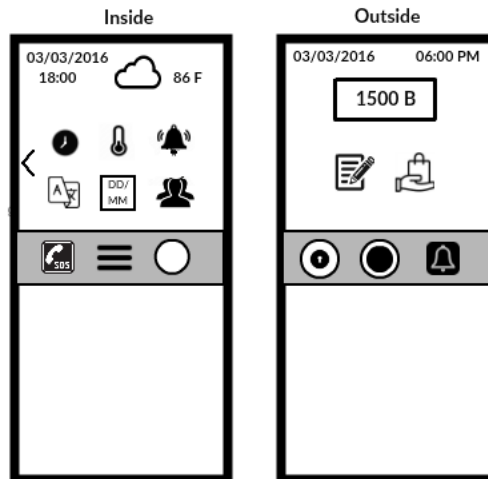
The time format is changed and it can be seen on the top of the screen.

Settings – Temperature format

Before

After

Inside

Outside

Inside

Outside

03/03/2016
06:00 PM   86 F

03/03/2016   06:00 PM

1500 B

03/03/2016
06:00 PM   86 F

03/03/2016   06:00 PM

1500 B
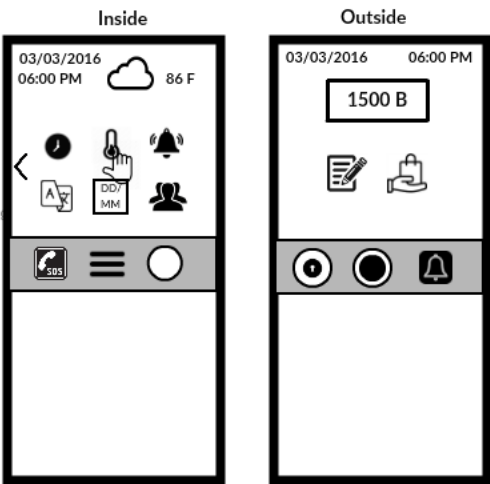
Touching the temperature icon in the menu opens up
the temperature degree settings panel with icons
depicting different degrees.
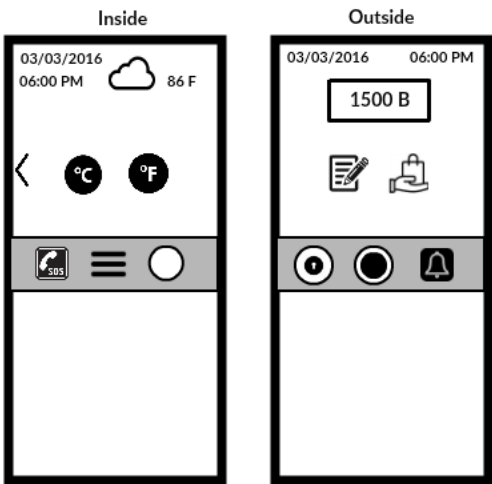
The user can choose between Celsius and Fahrenheit
temperature formats.

Settings – Temperature format (Cont.)

Before

Inside

03/03/2016
06:00 PM   ☁   86 F

°C   °F

🖐

[SOS] ≡ ◯

Outside

03/03/2016   06:00 PM

1500 B

📝   🛍

⊙ ● 🔔
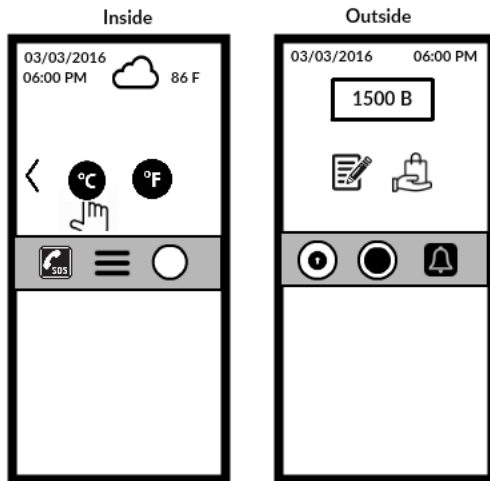
The user selects the Celsius unit for the temperature.

After

Inside

03/03/2016
06:00 PM   ☁   30 C

🕐   🌡   🔔

A文   DD/MM   👥

[SOS] ≡ ◯

Outside

03/03/2016   06:00 PM

1500 B

📝   🛍

⊙ ● 🔔
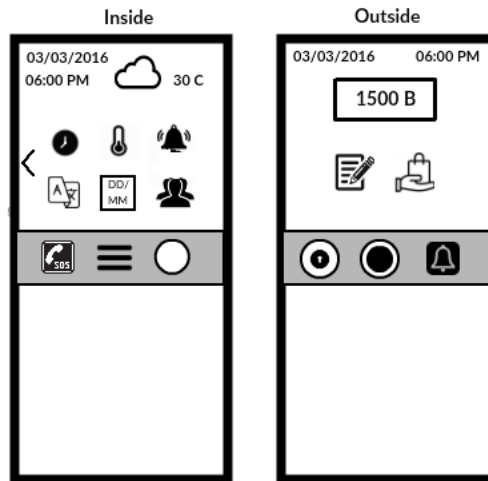
The temperature units are changed on screen.

Settings - Door bell chime

Before

Inside

Outside
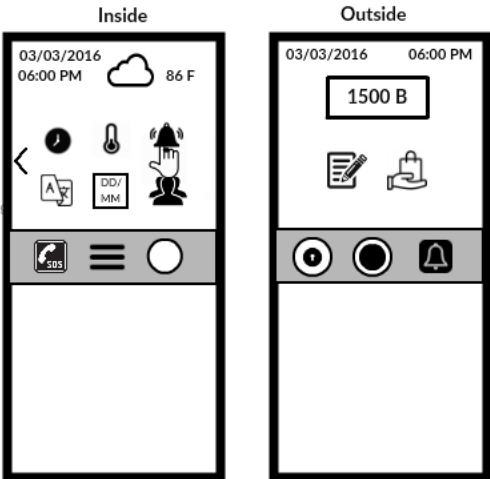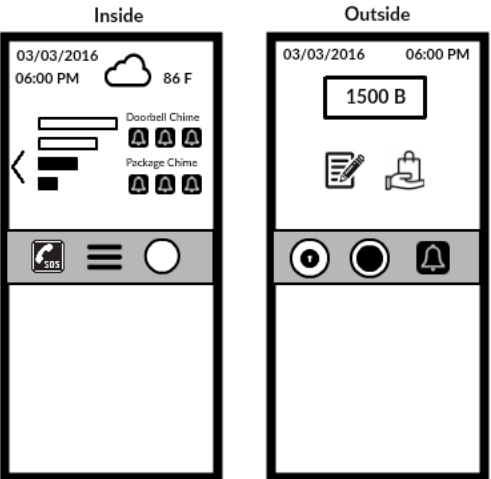
Touching the doorbell icon in the menu opens up the doorbell settings panel with icons depicting different tones and volume control.

After

Inside

Outside

The user can select among four different doorbell tones and adjust volume.

Settings - Language

Before

Inside

03/03/2016
06:00 PM   86 F

Outside

03/03/2016   06:00 PM

1500 B
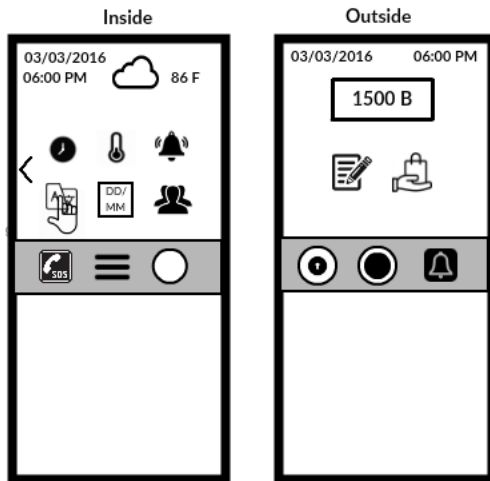
Touching the language icon in the menu opens up the language selection panel with icons depicting different languages.

After

Inside

03/03/2016
06:00 PM   86 F

English   Hindi
Espanol   Bengali
Russian   Chinese
Dutch   French
Arabic   German

Outside

03/03/2016   06:00 PM

1500 B
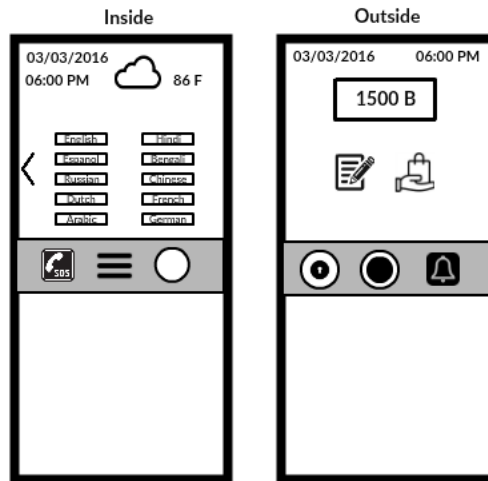
The user can select among ten different languages.

Settings – Date format

Before

Inside

03/03/2016
06:00 PM   86 F

Outside

03/03/2016   06:00 PM

1500 B
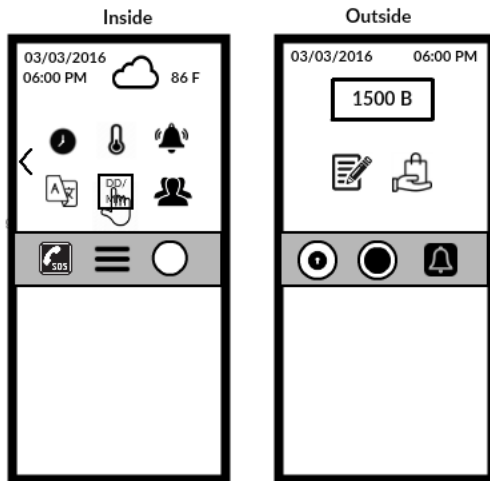
Touching the Date icon in the menu opens up the date format selection panel with different types of date formats.

After

Inside

03/03/2016
06:00 PM   86 F

MM/DD/YYYY
DD/MM/YYYY
01 JAN 2016
JAN 01 2016

Outside

03/03/2016   06:00 PM

1500 B
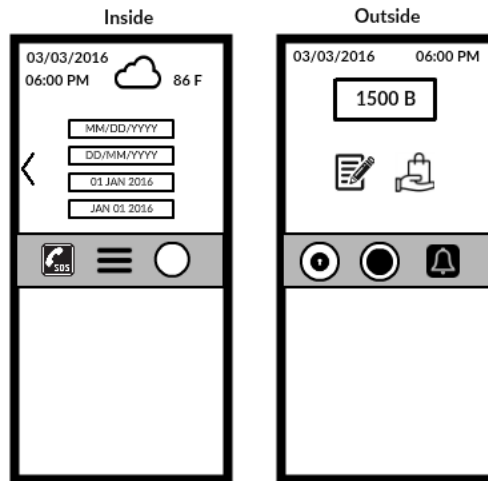
The user can select among four different date formats.

Settings – Date format (Cont.)

Before

After

Inside

Outside

Inside

Outside

03/03/2016
06:00 PM   86 F

03/03/2016   06:00 PM

1500 B

MM/DD/YYYY

DD/MM/YYYY

01 JAN 2016

JAN 01 201

SOS

Mar 03 2016
06:00 PM   86 F

DD/
MM

SOS

Mar 03 2016   06:00 PM

1500 B
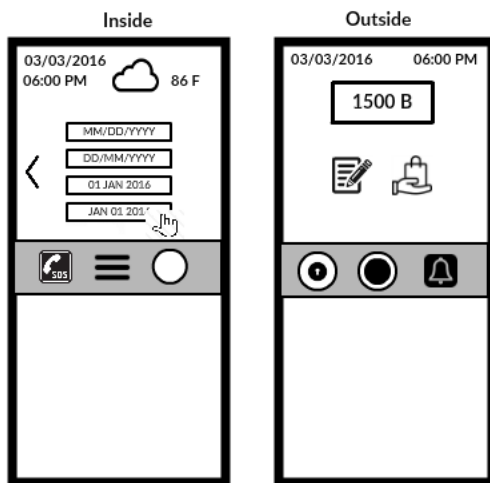
The user selects the date format of his choice.
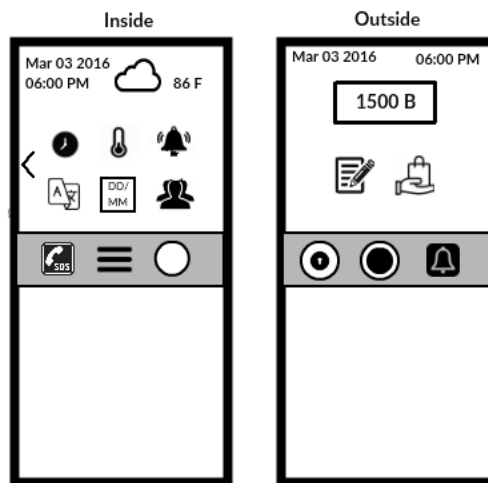
The date format is changed on screen.

Settings -User profile

Before

Inside

| 03/03/2016 | | |
| 06:00 PM | ☁ | 86 F |

Outside

03/03/2016	06:00 PM

1500 B
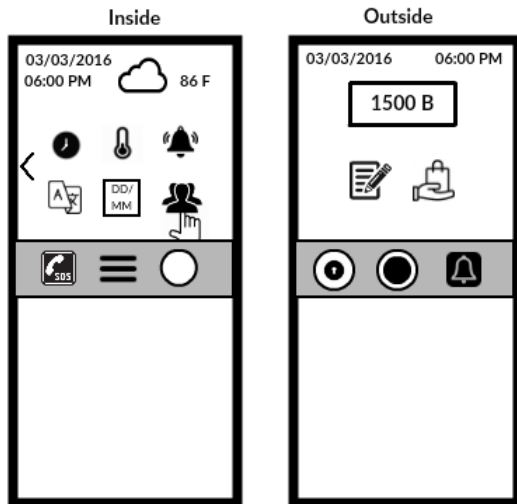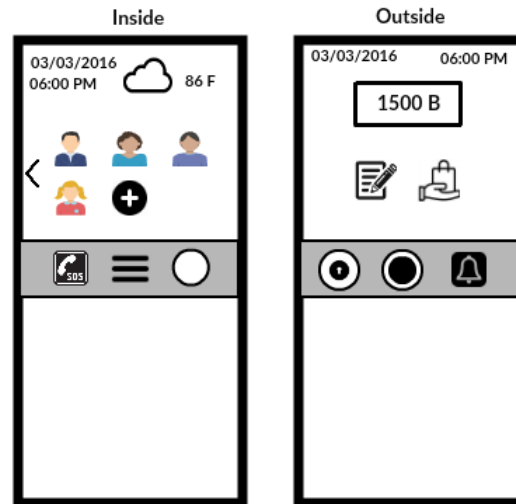
The users icon in the settings panel allows the user to tweak the user profiles. This includes editing user profile picture, finger print, etc.

After

Inside

| 03/03/2016 | | |
| 06:00 PM | ☁ | 86 F |

Outside

03/03/2016	06:00 PM

1500 B

The users panel displays the pictures of the current users installed in the system. There is also an icon to add a new user in the system.

Settings -User profile (Cont.)
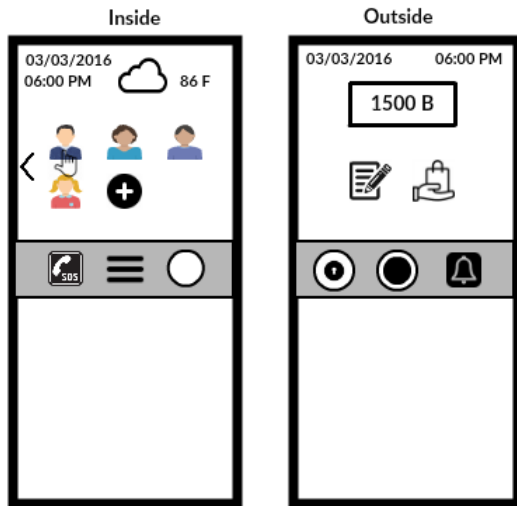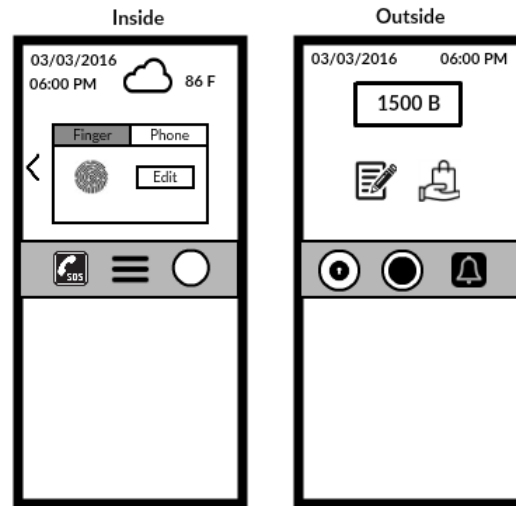
Before

Inside

03/03/2016
06:00 PM   86 F

Outside

03/03/2016   06:00 PM

1500 B

Clicking on a user's picture opens up that user's profile in a profile panel. The user profile can then be edited.

After

Inside

03/03/2016
06:00 PM   86 F

| Finger | Phone |

Edit

Outside

03/03/2016   06:00 PM

1500 B

The profile panel displays the fingerprint and phone options. The user can edit these details for himself.

Settings -User profile (Cont.)

Before

Inside

03/03/2016
06:00 PM   86 F

| Finger | Phone |

Edit

SOS

Outside

03/03/2016   06:00 PM

1500 B

After

Inside

03/03/2016
06:00 PM   86 F

Scan your finger on the Knob

SOS

Outside

03/03/2016   06:00 PM

1500 B

The user can edit the fingerprint by touching the edit button. This is useful in case the added finger/thumb is injured or when the user wants to add additional finger.

The panel now shows the panel which asks the user to scan his finger. The shutter is opened on the knob and the user can touch on the knob to scan his finger.

Settings -User profile (Cont.)
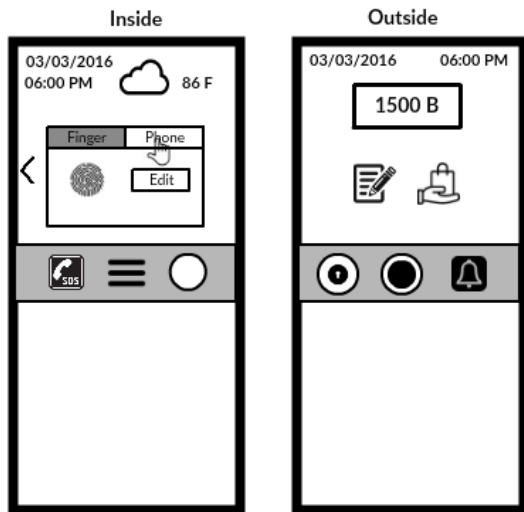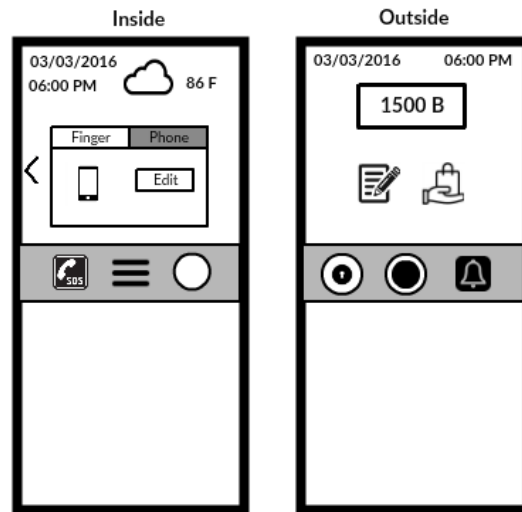
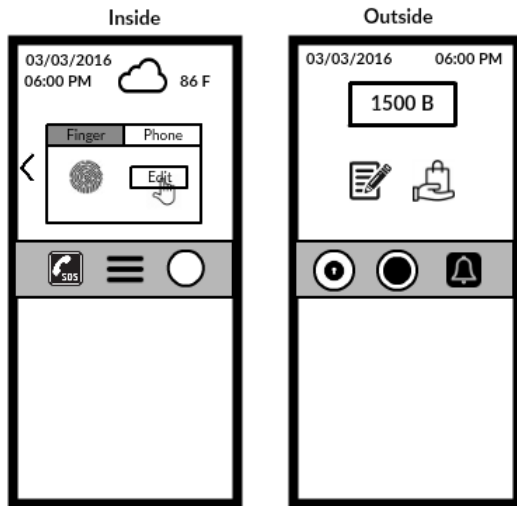## Before

Inside

Outside

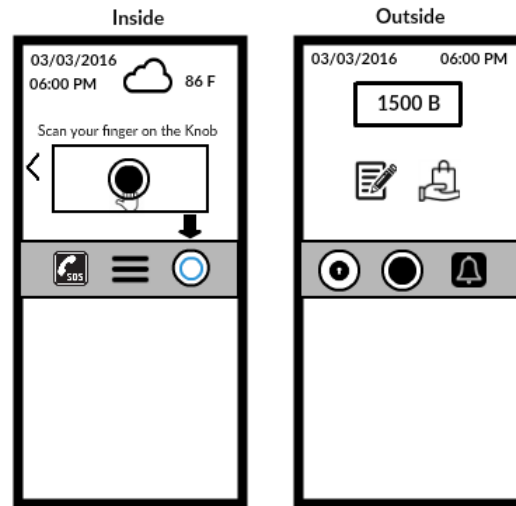Clicking on a user's picture opens up that user's profile in a profile panel. The user profile can then be edited.

After

Inside

Outside

The phone tab in the panel allows the user to edit the phone using NFC. This is useful when the user buys a new phone.

Settings -User profile (Cont.)

Before

Inside

03/03/2016
06:00 PM   86 F

Finger | Phone
Edit

SOS

Outside

03/03/2016   06:00 PM

1500 B
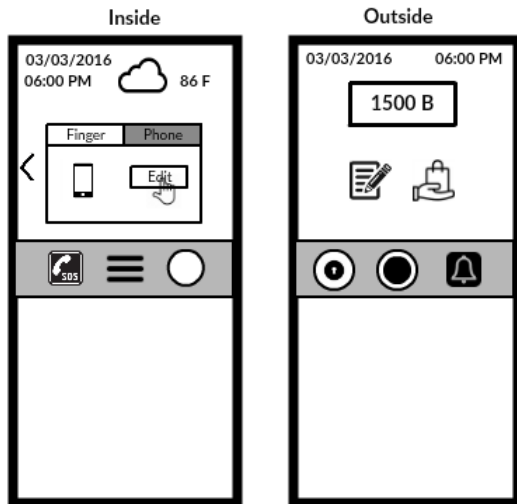
The user can edit his phone by touching the edit button. This is useful in case the user buys a new phone.

After

Inside

03/03/2016
06:00 PM   86 F

Switch on your Phone's NFC

SOS

Outside

03/03/2016   06:00 PM

1500 B
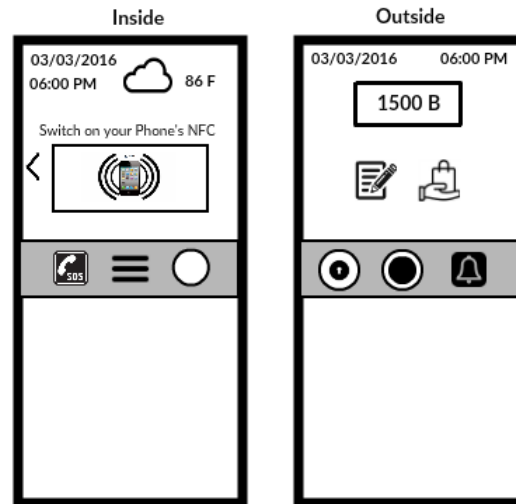
The panel now shows the panel which asks the user to switch on his phone's NFC. The user does so and his phone is connected to Autumn.

Settings -User profile (Cont.)

Before

Inside

03/03/2016
06:00 PM   86 F

<

Outside

03/03/2016   06:00 PM

1500 B
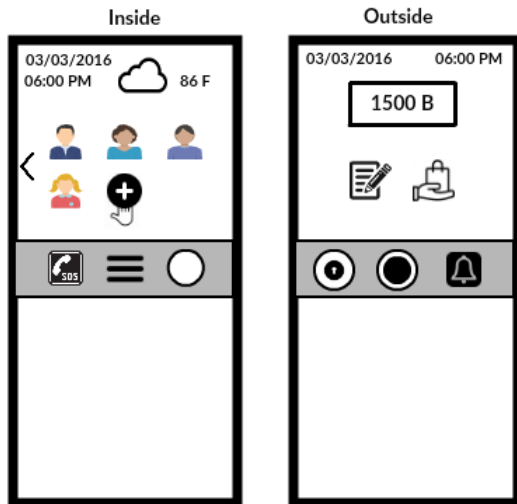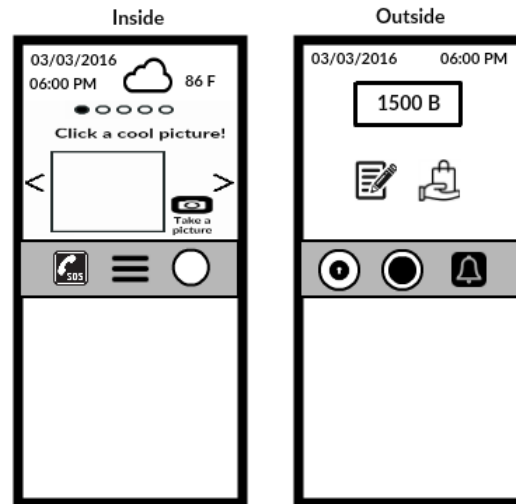
The add user icon allows the user to add a new user to the system. The feature allows the user to add new user's fingerprint, phone, voice input, etc.

After

Inside

03/03/2016
06:00 PM   86 F

● ○ ○ ○ ○
Click a cool picture!

<   >

Take a picture

Outside

03/03/2016   06:00 PM

1500 B

The add new user setup allows the user to set up a new profile. The step by step guide allows the user to do so. The rest of the sketches are similar to initial user set up.

Mirror icon

Inside

Outside

Inside

Outside

03/18/2016
06:00 PM
86 F

03/18/2016   06:00 PM

1500 B

03/18/2016   06:00 PM

1500 B
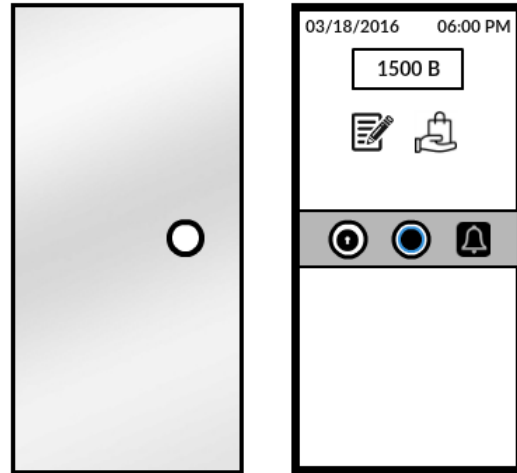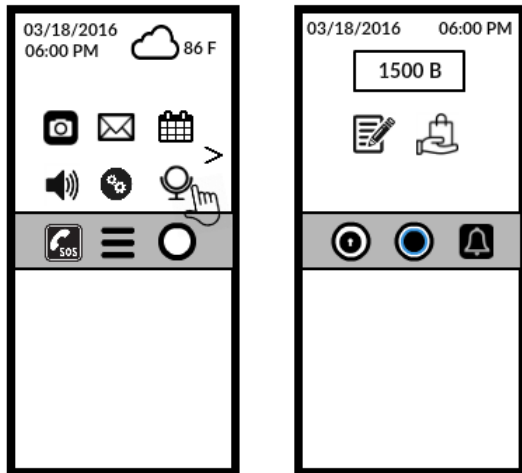
This sketch shows how the user can convert their door into a full size mirror. The user can simply click on the mirror icon in menu and the inside door is converted into a full size mirror

This sketch shows how the inside mirror is converted into a full size mirror.

Mirror icon (Cont.)

Before

Inside

Outside

03/18/2016   06:00 PM

1500 B

After

Inside

03/18/2016
06:00 PM   86 F

Outside

03/18/2016   06:00 PM

1500 B
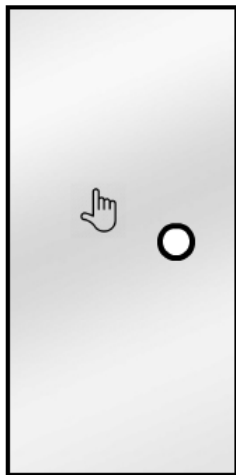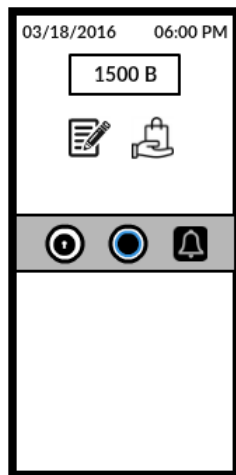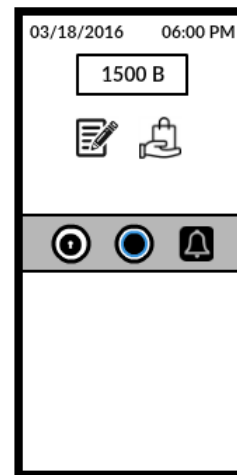
This sketch shows how the user can again convert the doors full sized mirror view back to menu view by just tapping on the mirror again - anywhere.

This sketch shows the user is returned back to the main menu screen after it taps anywhere on the mirror.

Menu set 2

Before

Inside

03/18/2016
06:00 PM   86 F

Outside

03/18/2016   06:00 PM

1500 B
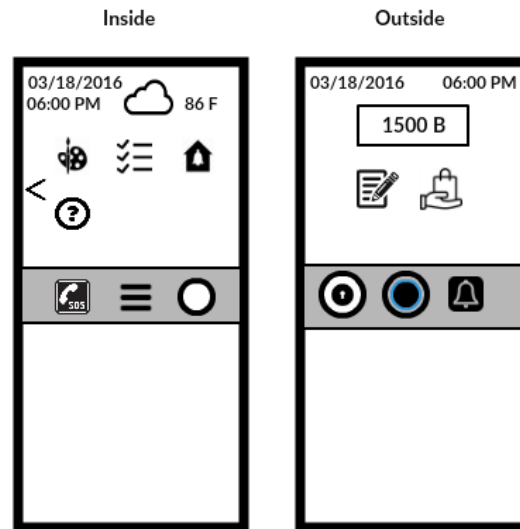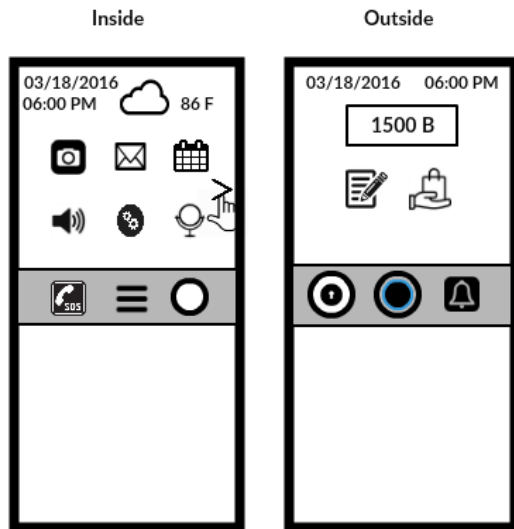
In this sketch, when the user clicks on the right arrow he is navigated to the next set of menu.

After

Inside

03/18/2016
06:00 PM   86 F

Outside

03/18/2016   06:00 PM

1500 B

As shown in this diagram, the next set of menu opens up with the icons for setting themes, to do list, house alarm & help.

Theme icon

Before

Inside

| 03/18/2016 06:00 PM | ☁ | 86 F |

Outside

| 03/18/2016 | 06:00 PM |

1500 B
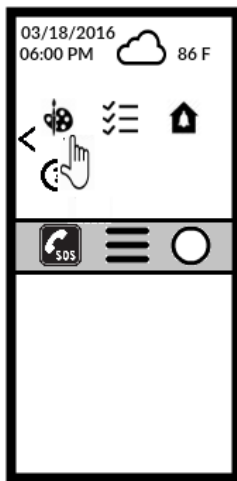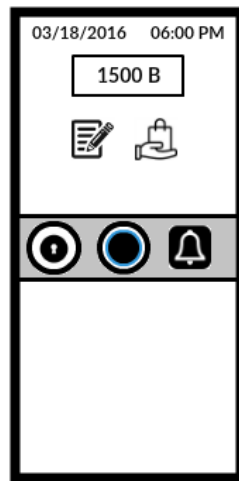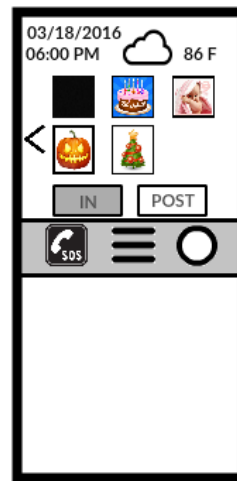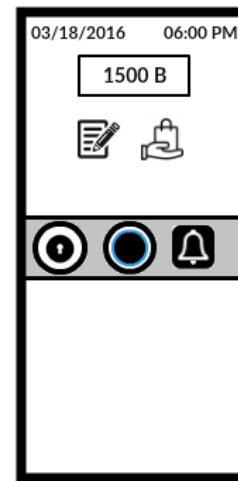
In the second set of menu there are 2 icons. One for changing themes & the other one is for the to-do list. When the person clicks on the theme icon he is navigated to a new screen as shown in the diagram above.

After

Inside

| 03/18/2016 06:00 PM | ☁ | 86 F |

IN   POST

Outside

| 03/18/2016 | 06:00 PM |

1500 B

As shown in this diagram, the user can see a number of themes for different occasions such as for birth announcement, Christmas, Halloween, Birth day, etc.
Here we also have 2 icons IN & OUT for applying the theme selected on the inside or outside of the door.

Inside door theme

Before
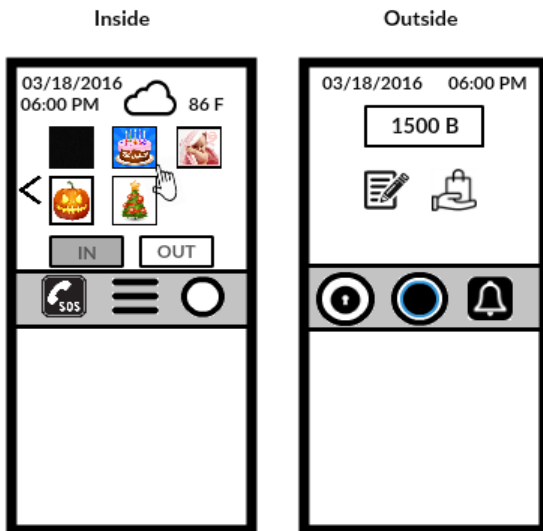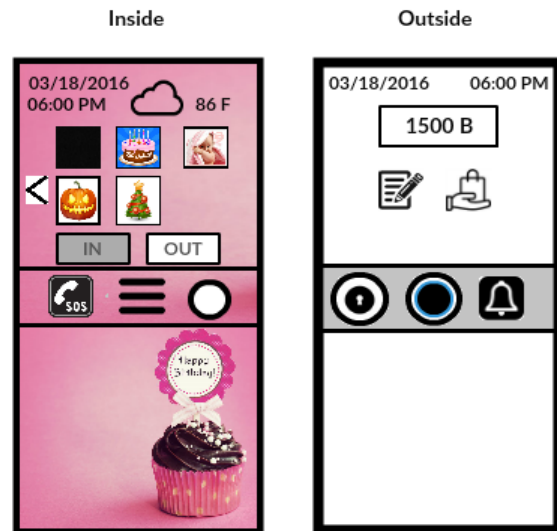
Inside

03/18/2016
06:00 PM   86 F

IN   OUT

SOS

Outside

03/18/2016   06:00 PM

1500 B

After

Inside

03/18/2016
06:00 PM   86 F

IN   OUT

SOS

Happy
B-thday!

Outside

03/18/2016   06:00 PM

1500 B

In this sketch, when the person clicks on the theme icon he is navigated to a new screen as shown in the diagram above, where he can see a number of themes.

As shown in this diagram, the user can see a number of themes for different occasions such as for Birth announcement, Christmas, Halloween, Birth day, etc.

Here we also have 2 icons, IN & OUT for applying the theme selected on the inside or outside of the door.

Outside door theme

Before

Inside

Outside


```
03/18/2016
06:00 PM          86 F
```

```
IN    OUT
```

```
03/18/2016    06:00 PM
```

```
1500 B
```
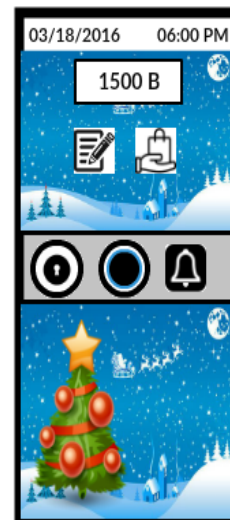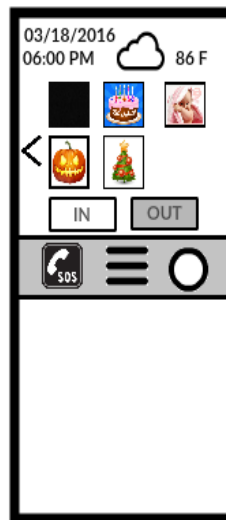
In this sketch, when a person clicks on the OUT icon it gets highlighted and then the user can select any theme. For example, the user here selects the Christmas theme.

After

Inside

Outside

```
03/18/2016
06:00 PM          86 F
```

```
IN    OUT
```

```
03/18/2016    06:00 PM
```

```
1500 B
```

As shown in this diagram, on click the Christmas theme icon the theme is applied on the outside of the door. A theme always gets applied in such a way that the remaining icons on the screen are clearly visible.

Inside and outside theme
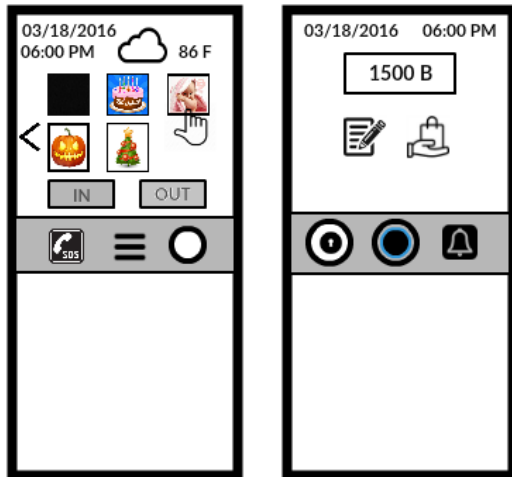
Inside   Outside

Inside   Outside

In this sketch, when the person clicks on the birth announcement theme icon. This selected theme gets applied on the inside of the door just like the birthday theme.

As shown in this diagram, the birth announcement theme gets applied and the rest of the layout is same so as to keep the rest of the functionality same as before.

To- do list icon

Inside

03/03/2016
06:00 PM ☁ 86 F

Outside

03/03/2016   06:00 PM

1500 B
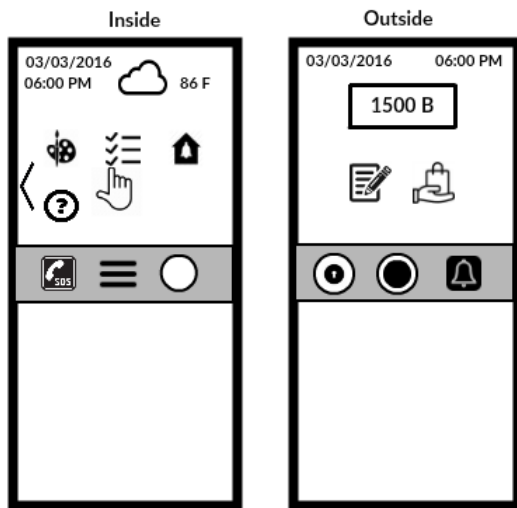
Touching the to do list icon in the menu opens up the to do list of the user.

After

Inside

03/03/2016
06:00 PM ☁ 86 F

☑ Bring Milk ✕
☑ Call Joy ✕
☐ Pay Bills ✕
New

Outside

03/03/2016   06:00 PM

1500 B
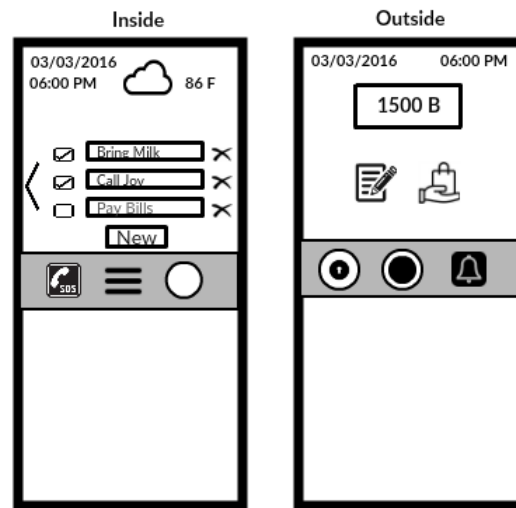
The to do list is displayed. The list items are shown in vertical order with tick boxes and delete buttons. Also, there is a New button to add a new item.

To – do List (Cont.)

Inside

03/03/2016
06:00 PM   86 F

☑ Bring Milk ✕
☑ Call Joy ✕
New

[SOS] ≡ ○

Outside

03/03/2016   06:00 PM

1500 B

◉ ● 🔔

Inside

03/03/2016
06:00 PM   86 F

☑ Bring Milk ✕
☑ Call Joy ✕
☐ ✕
New

[SOS] ≡ ○

Outside

03/03/2016   06:00 PM

1500 B

◉ ● 🔔
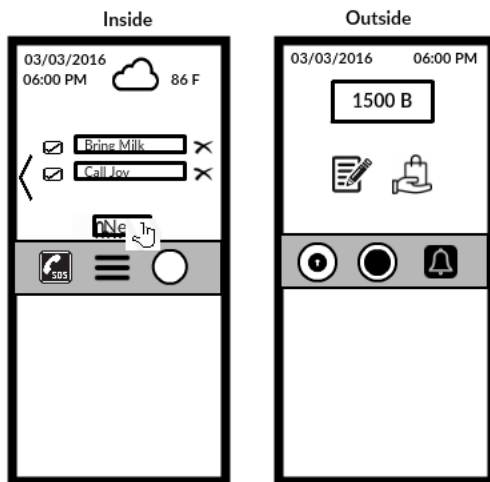
The user can add a new to do list item by touching the new button.
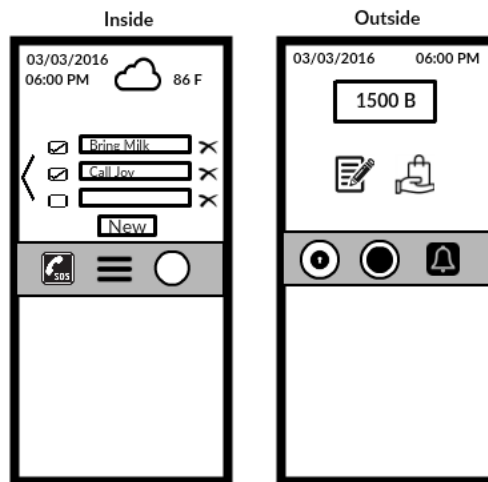
A new empty to do list item is added. The user can touch the text box to add text in the item box.

To – do List (Cont.)

Before

Inside

03/03/2016	
06:00 PM	☁ 86 F

☑ Bring Milk ✕
☑ Call Joy ✕
☐ Pay Bills ✕
New

SOS ≡ ○

Outside

03/03/2016	06:00 PM

1500 B

▣ 🛍

◉ ● 🔔
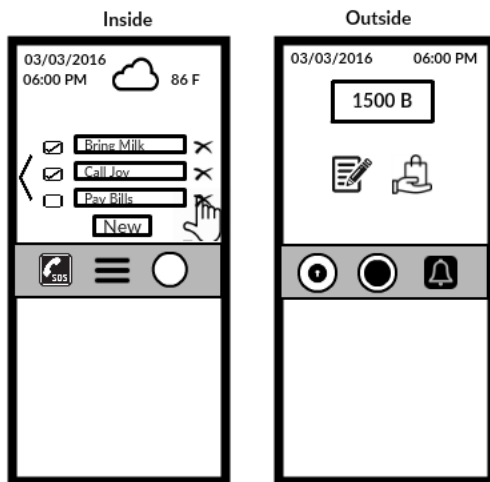
The user can delete an existing list item by touching
the delete button.

After

Inside

03/03/2016	
06:00 PM	☁ 86 F

☑ Bring Milk ✕
☑ Call Joy ✕
New

SOS ≡ ○

Outside

03/03/2016	06:00 PM

1500 B

▣ 🛍

◉ ● 🔔
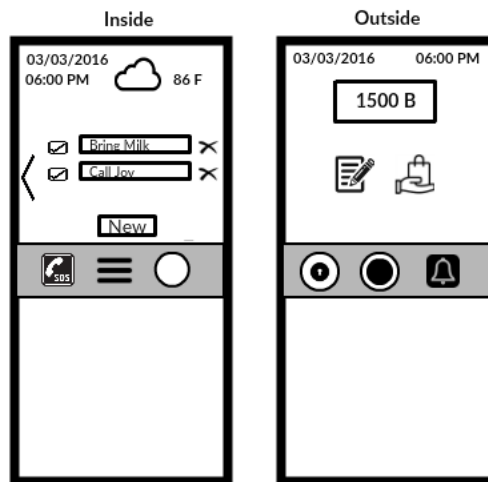
The deleted item is removed. Now, the remaining
items are aligned as per the pattern.

House alarm On/Off

Inside   Outside

Inside   Outside

Before – Inside

03/18/2016
06:00 PM   86 F

<

?

SOS   ≡   ◯

Before – Outside

03/18/2016   06:00 PM

1500 B

◉   ◉   🔔

After – Inside

03/18/2016
06:00 PM   86 F

<   ON —● OFF

SOS   ≡   ◯

After – Outside

03/18/2016   06:00 PM

1500 B

◉   ◉   🔔
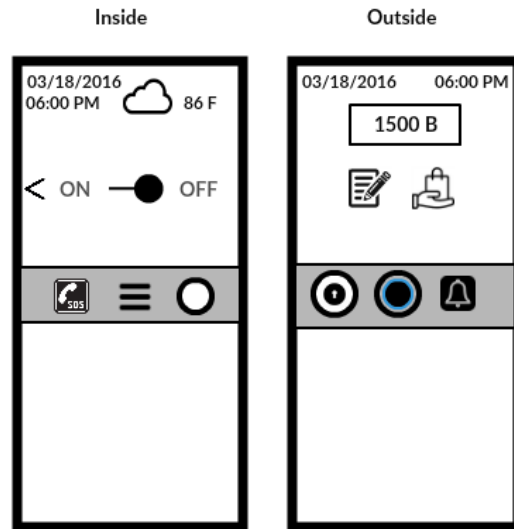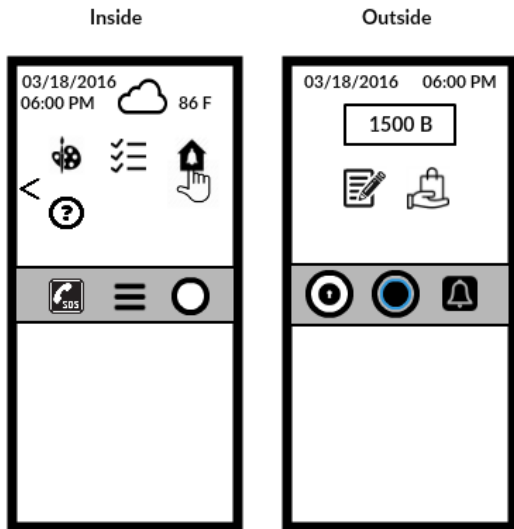
When the user clicks on the house alarm icon he is navigated to a window from where he can turn on/off the house alarm.

As shown in this diagram, a slider is displayed which could slide left or right to change the state.

Help icon

Before

Inside   Outside

03/18/2016
06:00 PM   ☁   86 F

03/18/2016   06:00 PM

1500 B
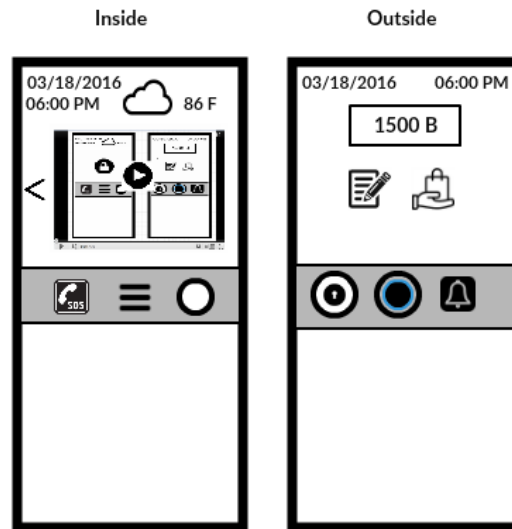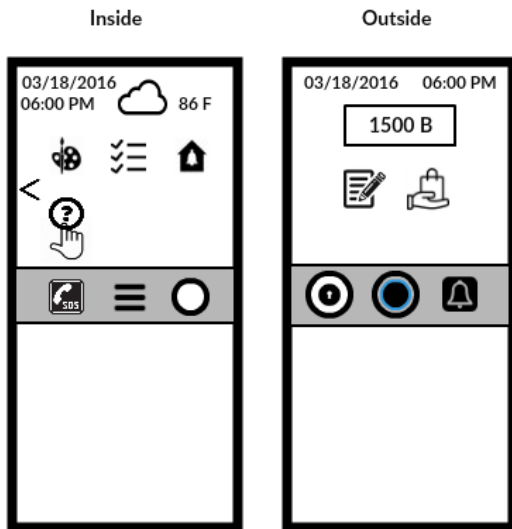
When the user clicks on the help icon, he is navigated to a window from where he can play a video to see the detailed tutorial explaining the usage of different functionality.

After

Inside   Outside

03/18/2016
06:00 PM   ☁   86 F

03/18/2016   06:00 PM

1500 B

As shown in this diagram, a video tutorial window is displayed with play and pause icon to see a video clip explaining a multitude of functionality.

Collapse menu layout

Before

Inside | Outside

03/18/2016
06:00 PM ☁ 86 F

📷 ✉ 📅
🔊 ⚙ 🎤 >

📞SOS ≡ ○ 👆

03/18/2016   06:00 PM

1500 B

📝 🛍

◉ ◉ 🔔

After

Inside | Outside

03/18/2016
06:00 PM ☁ 86 F

🔒

📞SOS ≡ ○

03/18/2016   06:00 PM

1500 B

📝 🛍

◉ ◉ 🔔
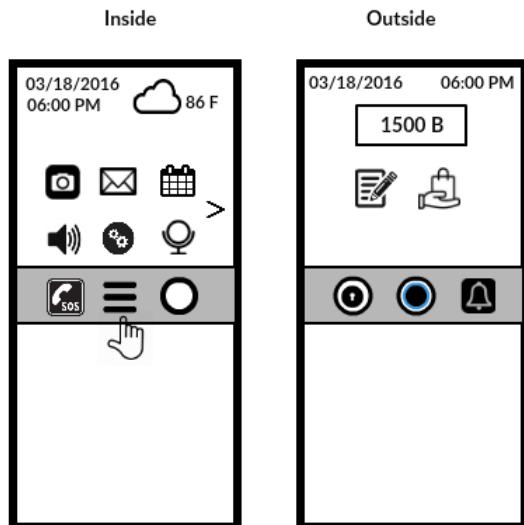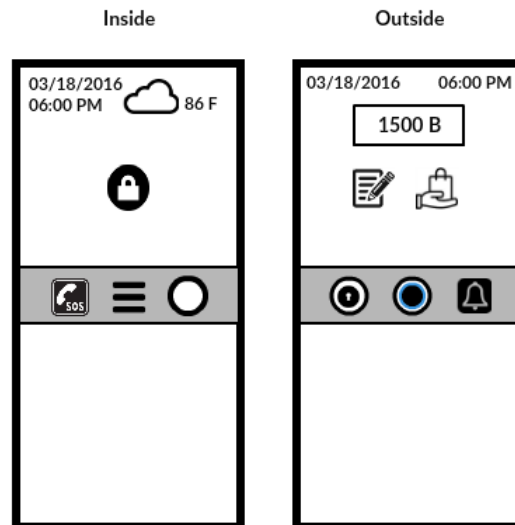
This sketch shows how the menu can be collapsed back to make the gate clear from all the menu items.

This sketch shows the menu items are cleared once the menu icon is clicked - this helps in making the door look clean. The menu items automatically disappears if they are present on the door and there is no activity near the door for more than minutes.

Clickable date text

Before

Inside

03/03/2016
06:00 PM   86 F

Outside

03/03/2016   06:00 PM

1500 B
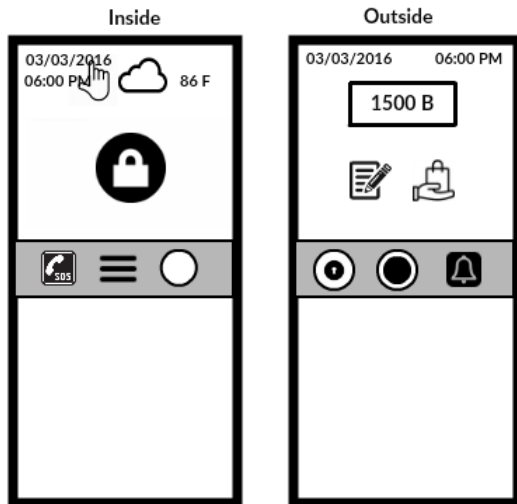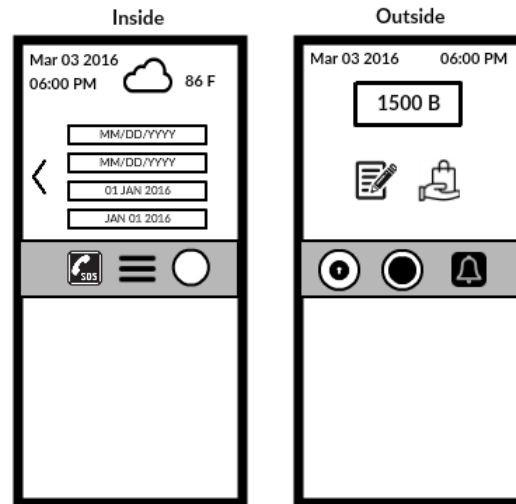
The date shown on the top screen is also clickable. The user can just touch the date and a panel with date formats will be displayed.

After

Inside

Mar 03 2016
06:00 PM   86 F

MM/DD/YYYY
MM/DD/YYYY
01 JAN 2016
JAN 01 2016

Outside

Mar 03 2016   06:00 PM

1500 B

The date format settings panel is displayed. The user can select among 4 available date formats.

Clickable time text

Inside

03/18/2016	
06:00 PM ☁ 86 F	

Outside

03/18/2016   06:00 PM

1500 B
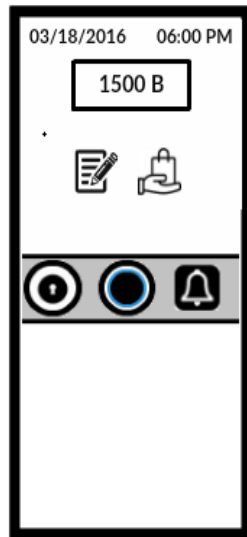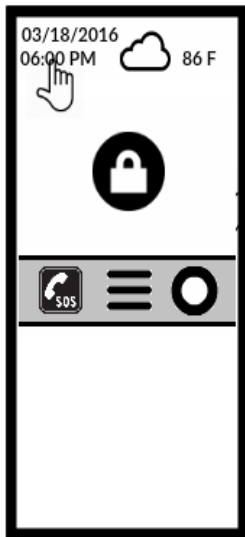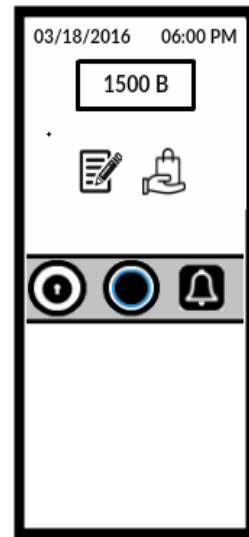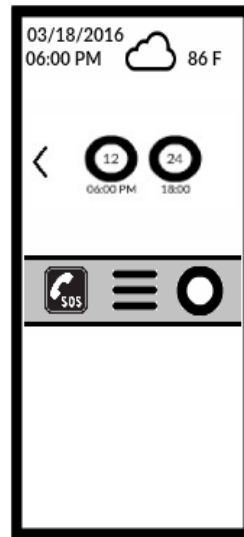
To change time format, user can click the time on the home screen.

Inside

03/18/2016
06:00 PM ☁ 86 F

‹ (12 / 06:00 PM) (24 / 18:00)

Outside

03/18/2016   06:00 PM

1500 B

On clicking the time text on the home screen of inside door, the user gets the option to choose from 12 hr and 24 hr time format.

Weather icon

Inside

Outside

Inside

Outside

03/18/2016
06:00 PM   86 F

03/18/2016   06:00 PM

1500 B
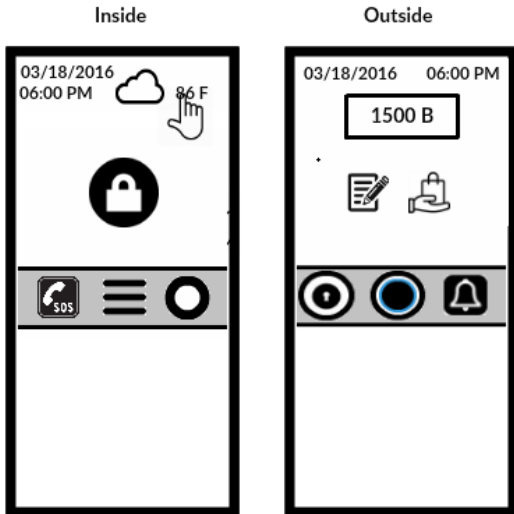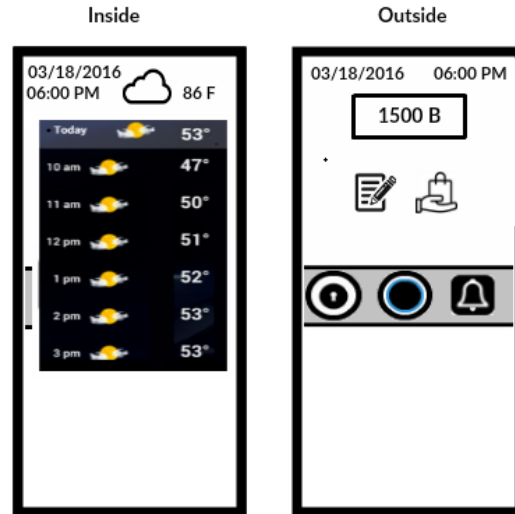
This sketch depicts the behavior of the weather icon. It is a clickable icon and user can click on it to check the hourly weather information of the day.

03/18/2016
06:00 PM   86 F

Today		53°
10 am		47°
11 am		50°
12 pm		51°
1 pm		52°
2 pm		53°
3 pm		53°

03/18/2016   06:00 PM

1500 B

Once the user clicks the weather icon, details of the hourly weather of the day are displayed. Time, weather image and temperature in the selected mode (F/C).

Inside door notification panel

Before

Inside	Outside

After

Inside	Outside
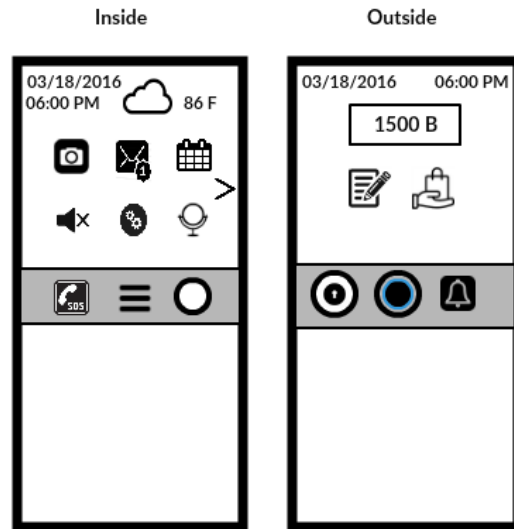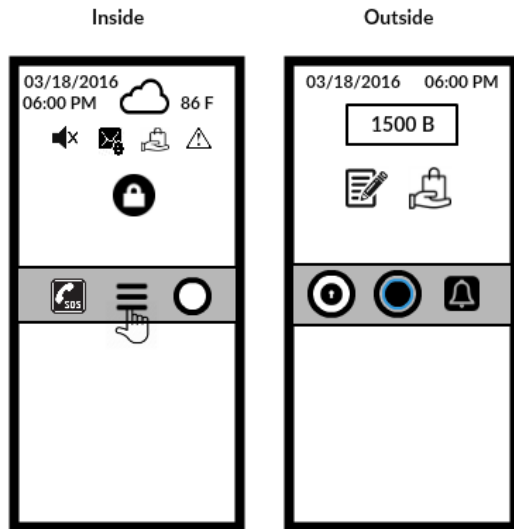
In this sketch, various notifications are displayed on the inside of the door above the lock icon. If the package delivery icon is displayed that means a package was delivered. If a mute icon is displayed that means the overall sound of the system is on mute state. Alert icon is displayed when there is any critical alert.

As shown in this diagram, when the menu icon is clicked the notification panel goes away and the menu is displayed, from which the user can click on any icon corresponding to the notification shown such as icon of 1 unread message.

Alert news icon

Before

Inside   Outside   After

Inside   Outside

Before — Inside

03/18/2016
06:00 PM   86 F

Before — Outside

03/18/2016   06:00 PM

1500 B

After — Inside

03/18/2016
06:00 PM   86 F

03/11/2016 8:00 Am: 8 people
dead, shoot out at Roosevelt road

03/11/2016 3:00 Pm : High
traffic jam reported near Willis
tower. 300 Cars stuck

OK

After — Outside

03/18/2016   06:00 PM

1500 B
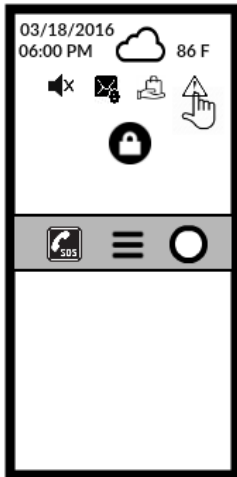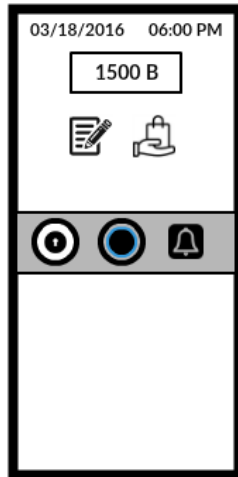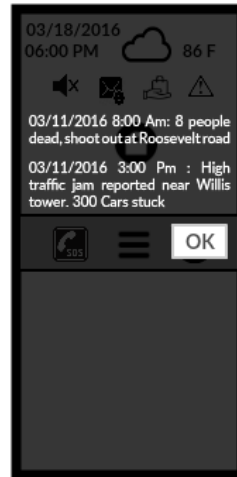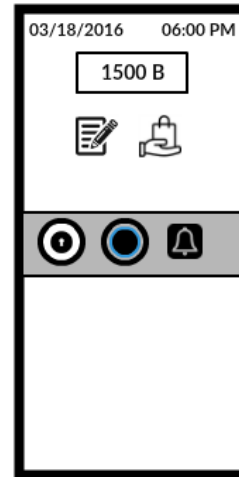
In this sketch, alert icon is displayed when there is any critical alert. When the user clicks on the alert icon a window pops up where a list of recent critical alerts are displayed.

As shown in this diagram, the good feature with this functionality is that the user does not need to navigate to the menu or anywhere else. He can just click on the alert icon and read the alerts and the time of occurrence.
He can click on the OK button to close the alert window.

Unsuccessful unlock attempts

Before

Inside

03/18/2016
06:00 PM ☁ 86 F

🔇 ✉ 🖐 ⚠

🔒

📞 ≡ ◯

Outside

03/18/2016   06:00 PM

1500 B

📝 🤚

◉ 🔵 🔔

3 Unsuccessful attempts to open the door made by the following visitor :

After

Inside

03/18/2016
06:00 PM ☁ 86 F

3 Unsuccessful attempts to open the door made by the following visitor : ⚠

OK

Outside

03/18/2016   06:00 PM

1500 B

Sending message to the owner.

📝

◉ 🔵 🔔
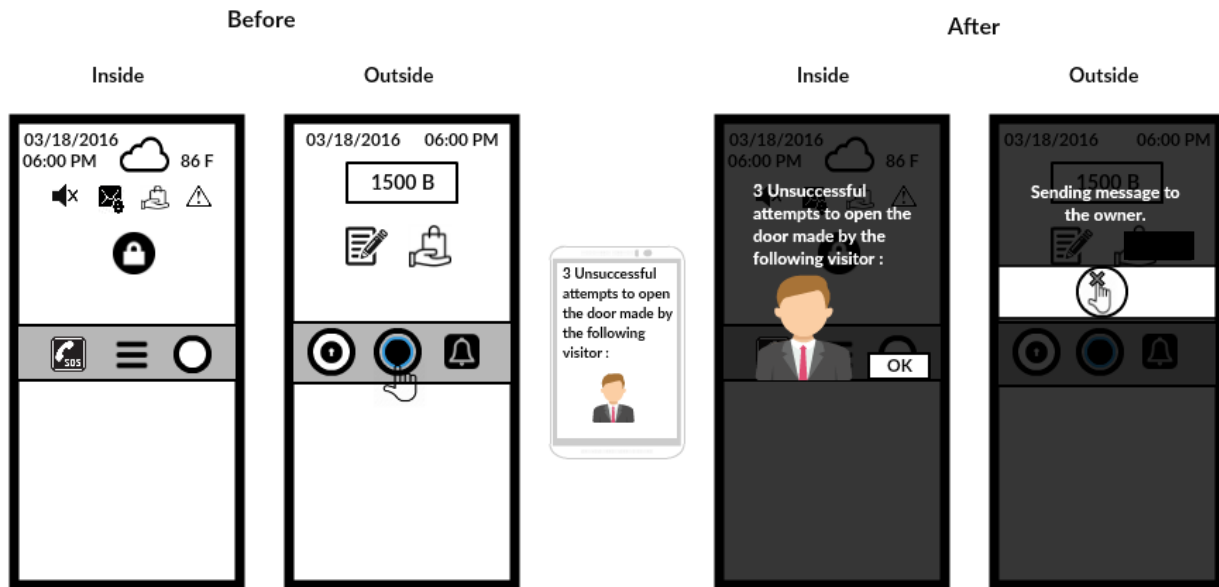
When any visitor makes 3 unsuccessful attempts to open the door for example by keeping his finger on the finger print scanner. A message is sent to the house owner informing about some unauthorized stranger making attempts to open the door.

As shown in this diagram, we can see a message on the phone of the owner informing him/her about unauthorized stranger trying to open the door.

Also, the stranger is also notified about the same by a message displayed on the screen after 3 unsuccessful attempts to open the door.

Multiple user at inside door

Inside

03/18/2016
06:00 PM ☁ 86 F

🔒

SOS ☰ ○

Outside

03/18/2016   06:00 PM

1500 B

📝 🤚

⊙ ◉ 🔔

This sketch shows hoe the door starts interacting when multiple users come near the door - but only regsitered users are recognized by the door. Also the user must be carrying a Mobile with NFC so that the door can show the users accordingly

After

Inside

03/18/2016
06:00 PM ☁ 86 F

👤   👤
Ridhi Sahib

🔒

SOS ☰ ○

Outside

03/18/2016   06:00 PM

1500 B

📝 🤚

⊙ ◉ 🔔

This sketch shows how the door interacts for multiple users - carrying Mobile. Once the mobile is in vicinity and the user is registered, the door automatically shows the users icon approaching the door.

Multiple user at inside door (Cont.)

Before

Inside

03/18/2016
06:00 PM   86 F

Ridhi   Sahib

Outside

03/18/2016   06:00 PM

1500 B

After

Inside

03/18/2016
06:00 PM   86 F

Outside

03/18/2016   06:00 PM

1500 B

This sketch shows how the door interacts with multiple users, allow them to perform some quick tasks without entering the menu. The user can click on their names to access quick links.

This sketch shows how a user can quickly access their messages, see any appointment details from the calendar and access a general to-do list. Generally a user going out of the house would want to see any important unread messages if left for them, check their appointment and day schedule, check the to-do list

Door number plate lit

Before

Inside

03/18/2016
06:00 PM ☁ 86 F

🔒

📞SOS ≡ ○

Outside

03/18/2016   06:00 PM

1500 B

📝 🔔

⦿ ⦿ 🔔
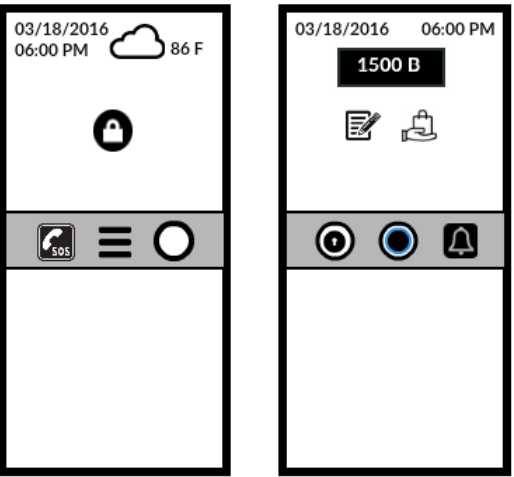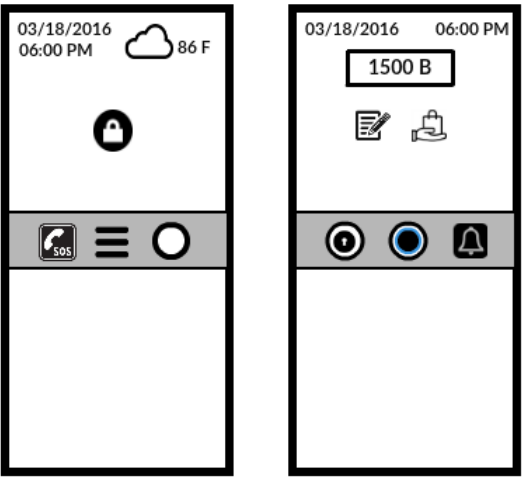
This sketch shows how the door number plate is automatically lighted when the time is between 6 P.M. to A.M. allowing the user to view the number plate even in dark.

After

Inside

03/18/2016
06:00 PM ☁ 86 F

🔒

📞SOS ≡ ○

Outside

03/18/2016   06:00 PM

1500 B

📝 🔔

⦿ ⦿ 🔔

This sketch shows the door number plate being lighted in a way so that it is visible in dark. The background of the door number plate is black and the door number is highlighted by the white text color.

Door lit

Before

Inside	Outside
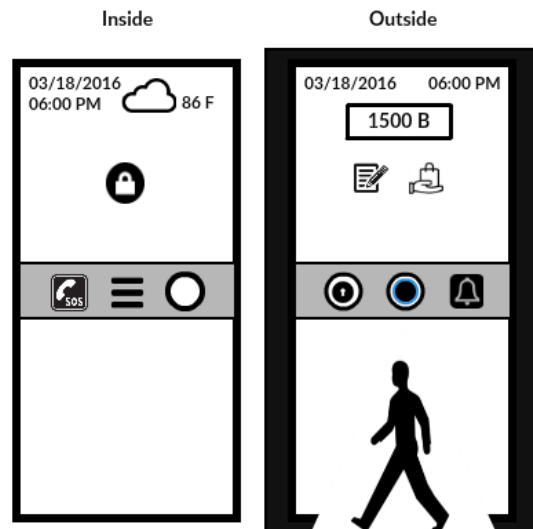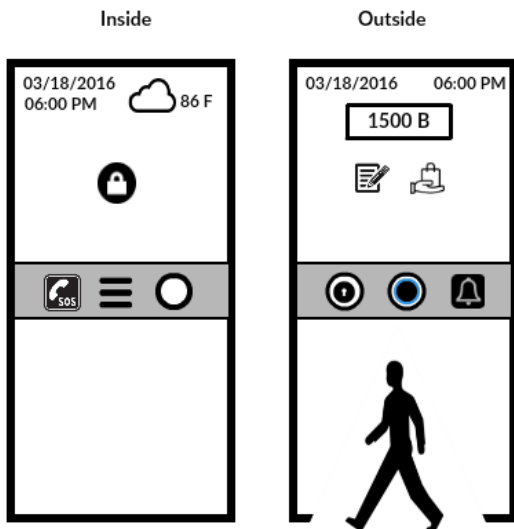
This sketch shows how the door reacts when a user approaches it during the evening time when there is less light and probably it is dark.

After

Inside	Outside

This sketch shows how the doors back light is enabled once the user is near the door, allowing a clear visibility of the door to the user. The back light is enabled only between 6 P.M. and 5 A.M.

Auto house alarm activation

Before

Inside

03/18/2016
06:00 PM ☁ 86 F

🔇x ✉ 🏠 ⚠

🔒

[SOS] ≡ ○

Outside

03/18/2016   06:00 PM

| 1500 B |

📝 🛍

◉ ⦿ 🔔

There is an
emergency
situation at home.
The house alarm is
activated. Move the
slider to the right to
turn it OFF.

ON ●— OFF

When there is an emergency situation for example in case
a thief breaks into the house through windows or anywhere
else. The house alarm, which is electronically tied to the
smart door gets activated.

In such a situation, a notification is also sent to the phone
of the owner informing him/her about such a situation.

After

Inside

03/18/2016
06:00 PM ☁ 86 F

🔇x ✉ 🏠 ⚠

**House Alarm
Activated**

ON ●— OFF

[SOS] ≡ ○

Outside

03/18/2016   06:00 PM

| 1500 B |

**House Alarm
Activated**

◉ ⦿ 🔔

As shown in this diagram, the inside of the door starts
glowing red in case of such an emergency situation. The
house alarm is activated which could be turned off after
the user has called police or whenever he has made sure
that he/she is safe.
The owner can turn off this house alarm from his phone
also. When he receives the notification, he has an option
to turn it off from his phone.