Lokey Smart Lock

Overview

Lokey is a modular system hoping to reinvent the way people enter their apartments and homes.

Our Story

Lokey was started last year when students realized there was a problem with the way people entered the homes. We started early prototyping using a Raspberry Pi and NFC devices to create a simple solution. And then we wanted to expand.

Market Problems

The current market lacks a centralized lock system that allows residents the ability to easily access their homes. Residents typically have to use cumbersome keys, or key cards to enter their homes. This tedious habit has led newer apartments to adopt keyless fobs. But they just add extra items to carry with you at all times. Meanwhile, everyone carries their personal smartphone at all times. Lokey will bridge the gap between keys and smartphones once and for all.

Market Trends

There has been a recent increase in the market for keyless entries in cars and homes. But there are no smart keyless entries that include a smartphone. Lokey hopes to ride this wave and introduce a revolutionary system that innovates and inspires.

Competitors

Company	Business Model	Released	Pros	Why Lokey is better?
Kevo	$34-$249/month	Yes	Kevo is backed by a large prove company in the lock industry, Kwikset. It uses directional Bluetooth 4.0 and has just recently added the ability to give 'eKey's to guests and friends of the resident. It also has multiple levels of encryption.	The problem with Kevo is that it does not have remote locking. You cannot open or check to see who is at your door from a far distance like work. Lokey gives you the ability to add a wifi module to your base kit to add the ability to see who is at the door and lock your door remotely. In addition, their hardware design is bland and their software is not easy to use. Lokey will be beautiful and intuitive to use. Lastly, Kevo charges $1.99 for each eKey given to a friend or guest. This is cheating a customer for money; Lokey believes our customers should have the ability to our product to the fullest once they have paid for our device.
August	$249.99	No	August smart lock has beautiful hardware design	Lokey will first take a page from their book by implementing beautiful design and customer oriented interface. But we

and an intuitive app. They also have a nifty feature that allows auto locking once a user has walked outside of the lock's range. Other than that, they have no other features that differentiate themselves from Kevo. August smart lock also uses omni-directional Bluetooth 4.0 and has no Wifi capabilities.

hope to differentiate ourself from August smart lock by first offering a WiFi module as explained before. In addition, we hope to be more secure by using directional bluetooth and implementing safety measures.

| Lockitron | $179 | Yes | Lockitron is the only product that utilizes WiFi with the intel we have gathered. It also is the only system that is meant to be placed on top of existing deadbolts. Lockitron also allows users to check if the front door has been | Lockitron has received many mixed reviews in the market place. Although they were one of the initial contenders in the smart lock market, their innovation has been short lived. Since Lockitron uses WiFi, it's battery life is severely limited (~3 months). In addition, their turning mechanism is inconsistent according to reviews. Lastly, the procedure to open up the door is rather extravagant. A user has to first knock on the door to activate the Lockitron device, then pull out their phone to the Lockitron |

				locked from a further distance.	app and then finally unlock the door. Meanwhile, Lokey will have a longer battery life and will unlock the door as soon as a user walks up to it while having all of the remote functionalities of Lockitron if a user was to buy the WiFi module.
Goji	$278	No		Goji's major difference from the other is a screen and a camera that allows users to see who is at the door. They also seem to use bluetooth and WiFi so that you can remotely lock and send keys to the door.	Lokey will prove to be a better product with our ingenious WiFi module which will reduce the battery life. We will also look into implementing a camera and screen as Goji has done a great job in implementing them.
OkiDokeys	$189	Yes		OkiDokeys system revolves around packaging various modules together. Consumers can buy multiple key fobs and rfid cards with a scanner and auto-unlocker.	Lokey hopes to be a intuitively cohesive system that will offer the best experience for a end user.

Strategy and Revenue Model

Keys to Success

Lokey will differentiate itself using beautiful design and simplistic interfaces while providing state of the art security. We also understand that different users have different needs. As a result, our system will focus on modularity for different customer facing components and security modules.

Strategy

Our goal is to provide our initial product to homes to earn the revenue and position ourselves in the lock market as a trustworthy company. Once that is done, our long term goal (next 2 years) is to approach hotels and market our device to hotels as a retrofittable attachment. For us, execution is critical.

Costs

Lokey provides a very simple cost break down. First, it is important to understand that Lokey has 2 parts: a software side and a hardware side. The cost per section would vary accordingly.

Software

The software component, the Android application and the main server, would be developed through the course of the next year. Fortunately, since the application will be developed in house, there would not be any direct development costs. However, there would be a hardware cost for hosting the main server. The cost breakdown of the servers would actually directly relate to the number of users Lokey had. The first 100 - 200

users can be supported by the free Amazon tier support, however; anymore users would incur in incremental cost increases. We feel that these costs would be mitigated by the magnitude of users and the revenue from the hardware.

Design

Our applications will be developed with the modern design in mind. We are well connected with web/app designers who will be able to put in their time to develop state-of-the-art designs.
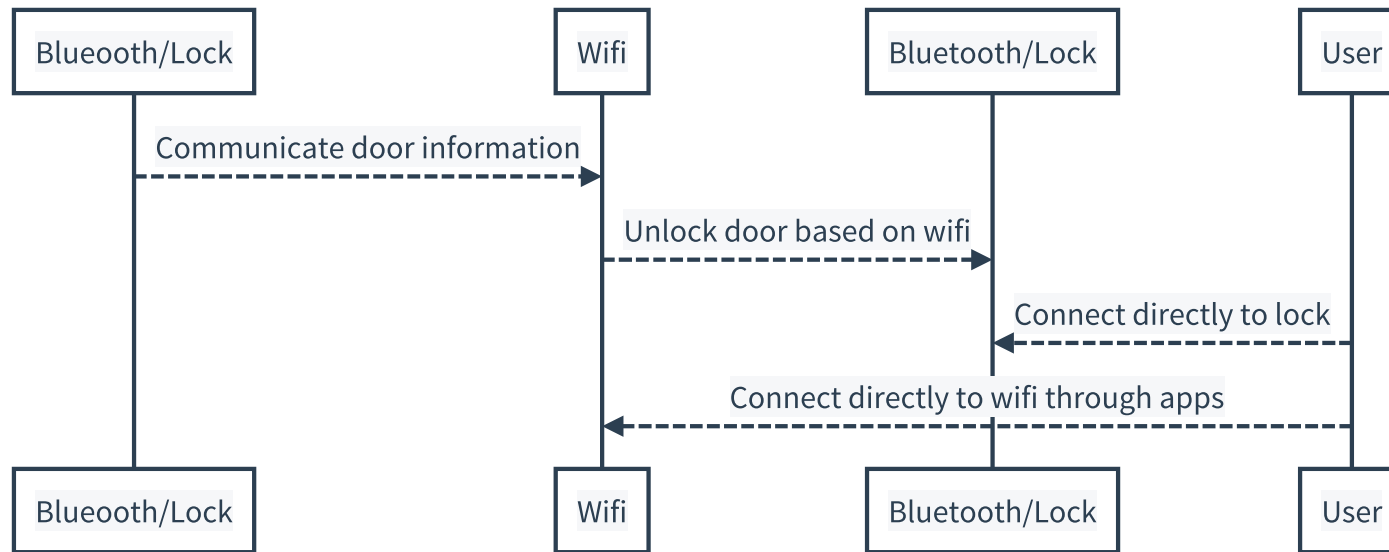
Testing

The application component will be tested very thoroughly between beta testers (which will consist of people we know). Each component of the device will be tested separately (bluetooth and wi-fi).

Hardware

The hardware component consists of the development of the prototype and then the final design.

Diagram

Prototype

The following details the cost per unit:

Item	Price	Quantity	Total
Rasberry PI	75.00	1	75.00
Motor	15.00	1	15.00
Roll Path	50.00	5	50.00
Additional	100.00	1	100.00
Total			240.00

Fabrication

The following details the cost per unit without any bulk savings:

Item	Approximate Price	Bulk
BatchPCB	15.00	5.00
RN42-XV (bluetooth)	25.00	5.00 - 10.00
XBee WiFi Module	25.00	5.00 - 10.00
Motor	15.00	
Casing	15.00	
Packaging	< 5.00	
Material	< 5.00	
Fabrication	< 5.00	
Additional	50.00	
Total	160.00	

Once we have reliable manufacturing outlets we are hoping to reduce this price by more than 50%.

Audience

Our initial focus is on two different markets: the hotel industry and customer homes.

Hotels

The hotel industry would be a perfect way to get a large customer base and the easiest to implement. Hotel visitors would definitely rather have an app-based key than add another key card to their wallet. On top of that, losing the key card and paying a fine is cut out of the picture. People can rent out the key for a certain amount of days, and then the passkey can be deactivated and changed after the time is over. Not only that, for the hotel, since most of the hotel bookings nowadays are made online, customers can completely skip the receptionist and walk straight to their hotel room once they get there. This can reduce the number of staff at hotel receptions. When there's a big rush, this can completely get rid of the traffic.

Advertising

To advertise the initial release of lokey we will put ourselves out to the student market and the surrounding Austin area. We believe that The University of Texas has a rich client base with students who are looking to play and implement the next big thing. Once we get feedback we will push our boundaries to the larger Austin area. We will also advertise ourselves at SXSW and hold sessions to demo our product through Capital Factory and other incubators. And lastly we will use all social media outlets to help advertise lokey.

Schedule

Time Range	Description
End of August	Talk to consumers/walk out into the streets and ask people.
Mid-September	Decide what changes need to be made
Late-September/Early October	Start networking out the idea at events around Austin i.e. CapitalFactory events and continue advertising campaign throughout the year. Start on mobile/web application

November	Figure out all the requirements and specifications for the product
November	Figure out specific manufacturers for each part and prices for mass production
December	Complete design of product. Begin fabrication designs aka. PCB, etc.
January	Begin development of product
End of February/Early March	Finish early prototype
Mid March	Install on some homes
March-May	Feedback and redesign/focus on events
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March-May	Feedback and redesign/focus on events
May	Have MVP ready with packaging
May	Partnerships
TBA	Mass produce home-compatible devices
TBA	Talk to hotels in the area who would be willing to implement our product as soon as possible
TBA	Find a hotel or a couple homes to test out our product for free

MVP

Our MVP device would be the initial fabrication design at a cost of $160.00. We want to focus on developing a working device that is presentable at the end of the day.

Why Longhorn Startup?

1. Business Guidance: We believe Longhorn Startup is perfect for business guidance. The team consists of dedicated engineers with strong technical backgrounds but we understand that the business aspect is just as important. Without a business backbone, we will not be successful no matter how impressive our product is.

2. Atmosphere Atmosphere Atmosphere: Building a startup requires hard work. Building startup requires time. Building a startup requires the nurturing environment. When we worked on previous startups, we have noticed the lax nature of the startup group. Members of the team would work a couple hours a day and meet once or twice a week. This led to a startup that floundered in it's own ideas. As a team, none of us in the team believe in that. Instead, we believe in dedication and long hours. We believe in the work ethics of the Jeff Atwood (creator of StackOverflow) - raising and nurturing his creation. We are ready to work between classes, put the long hours, and meet everyday. And the environment is critical for cultivating that rigorous startup culture.

3. Connections: Connections and networking are critical to the success of a startup. We believe that just being a part of "Longhorn Startup" will be a critical selling point to our product in Austin. Since Longhorn Startup also provides us with connections with industry leaders we will be able to reach a bigger audience and have a more powerful impact.

Final Comments

Let's build this ASAP.