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PROJECT AND MARKETING PLAN FOR A KICKSTARTER CAMPAIGN - SMART Q NIGHTLIGHT DEVELOPMENT
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This Bachelor’s thesis was offered by the Chinese Android system development, hardware design, and product manufacturing company Giayee Technology Co., Ltd. The client wanted to make a smart nightlight and launch it on Kickstarter. This thesis detailed the entire process of data acquisition from potential customers, the analysis of which features the smart nightlight should have, the Kickstarter crowdfunding project’s marketing strategy and its aftermath.

I began by utilizing my skills in project management to draft a plan for the project. I collected and analysed all the data given to me by Giayee pertaining to the nightlight. I crafted surveys, which I distributed to the masses in order to collect a public opinion about the nightlight’s potential features. While this Q Light was under development, I wrote several press releases and created the Kickstarter campaign page, as well as created a promotion video for this smart nightlight. When the campaign was launched, I also contributed to the final marketing work, such as promoting it via a social media system, forums and emails. In order to enhance the Google search results of Q Light, I also tried to contact different news websites to get more news reports of this smart nightlight. But the whole marketing process was a little bit in a hurry, so the results were not as good as we thought they would be.

As a result, this crowdfunding project failed in the end. But with this failure experience, I believe both me and the Giayee company will do a better job in the future.

Keywords: Kickstarter, smart nightlight, marketing, Kickstarter campaign, social media marketing, survey.
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1 INTRODUCTION

After 4 years of studying Information Technology, I started to feel bored and felt a growing dislike of purely programming. I did, however, slowly gain an interest in business. After making this realization, I committed the past 2 years to working in different areas: both in normal business (i.e. sales & marketing), as well as in minor software development. I wanted to find a project, which would most interest me as my final thesis topic, hopefully fitting in these areas. The company “Giayee Technology Co. Ltd.”, for which I am now working for, appointed me as the project & marketing planner for a Kickstarter-based project they began. I think this is a good opportunity for me to implement my studies and to apply myself in a manner fitting my future interests.

The main purpose of this thesis was to document a kickstarter project – Q Light from a concept to a completion.

1.1 Giayee Technology Co., Ltd.

Giayee Technology Co. Ltd is a professional Android system development, hardware design, and product manufacturing company based in Shenzhen, China. Giayee has over 10 years of experience in embedded product design, as well as 5 years with Android system development. Giayee was originally a small department within Embest Technology Co., Ltd. from 2002 to 2006. They have since broken off and become independent from Embest as of 2007. Now, they provide Android and Linux OS OEM (Original Equipment Manufacturer) and ODM (Original Design Manufacturer) services for emerging wireless companies. (Giayee 2013, date of retrieval 20.03.2015)

1.2 Kickstarter funding

“Kickstarter is one of a number of crowdfunding platforms for gathering money from the public, which circumvents traditional avenues of investment. Project creators choose a deadline and a minimum funding goal. If the goal is not met by the deadline, no funds are collected, a kind of assurance contract. Money pledged by donors is collected using Amazon Payments. The platform is open to backers from anywhere in the world and to creators from the US, UK, Canada, Australia, New Zealand, The Netherlands, Denmark, Ireland, Norway, and Sweden.
Kickstarter applies a 5% fee on the total amount of the funds raised. Their payments processor applies an additional 3–5% fee. Unlike many forums for fundraising or investment, Kickstarter claims no ownership over the projects and the work they produce. The web pages of projects launched on the site are permanently archived and accessible to the public. After funding is completed, projects and uploaded media cannot be edited or removed from the site." (Wikipedia 2010, date of retrieval 18.04.2015)

Kickstarter is the ideal platform for my project. Launching a new product or product line can be quite risky if a proper research is not done beforehand. If a product fails to sell, it can doom the company that created it if they had invested too many resources in the product without anticipating the market. Kickstarter allows for the creation of products with a funding from people that actually have an interest in the first place. By knowing nearly exactly how many items would need to be built to meet the demand, it's much easier to meet that magic point where the supply equals the demand, making everyone involved happy.

Basically, Kickstarter's approach to a crowdfunding allows for individuals and enterprises to market or potentially pre-sell their new product to people who believe it will catch on, or is something that the public really wants. Companies can gauge just how much demand there is for their potential product very easily by setting a funding goal they believe they would need to develop, produce, and ship the final product. If the goal is not met, there obviously isn't enough interest in the product to get it off the ground.

If the goal is met (or exceeded), then the demand is sufficient to get the ball rolling, and consequently the company now has the obligation to ship what they promised.

1.3 Project background

Giayee has had a previous success with Kickstarter in 2013, when they reached the funding goal for a project called “Atomwear”. Giayee has since set up an entire Kickstarter team, which only focuses on finding interesting project ideas, and hopefully will get them funded to fruition. For this project, we wanted to create a smart-gadget that people would use in their daily lives all over the world; it wouldn't rely on cultural or personal habits. It would need to be very a basic, easy to use, reliable, and useful enough device so that the public wouldn't feel the need to replace it in 6
months with a better, newer version.

When one searches for “smart home” or “home security” on Kickstarter, many results can be found including smart switches, smart plugs, smart smoke alarms, smart phones, and smart lamps. But, there aren’t any nightlights, or wall lamps with smart capabilities to be found. We know that the fear of the dark is a quite common issue among both kids and adults. The results of a previous project’s survey (see Figure 1) show that many people rate nightlights/wall lights as one of the more potentially useful items in their daily life.

![Survey results of a smart reading lamp.](image)

**FIGURE 1. Survey results of a smart reading lamp.**
*(Survmetrics 2014, date of retrieval 20.02.2015)*

Nightlights are generally designed to be placed in a dark area where no other lighting solution is available, or areas that become dark at certain times. Standard nightlights produce a soft glow, nothing too bright or discomforting. “People often use nightlights for the sense of security which having a light on provides, and for a solution against nyctophobia (fear of the dark). Besides their usefulness to children in the allaying of their fears, nightlights are also useful to the general public...
by showing the general layout of a room without turning on a major light, for avoiding tripping over stairs or obstacles, or to mark an emergency exit.” (Wikipedia 2004, date of retrieval 23.03.2015)

According to a survey created on the website “tellwut” on January 6th, 2015, 46.91% of the 2187 participants surveyed used a nightlight when they were younger” (Jolaw12345 2015, date of retrieval 10.04.2015).

Knowing this, we can extrapolate that almost half the population use(d) a nightlight at home. The market for nightlights is still quite huge nowadays.

What’s more? From the Internet it’s not hard to find different studies and researches to show that by keeping a nightlight on throughout the whole night affects hormone production, which can impair a users’ sleep, cause depression and increase a cancer risk. However, some people still can’t stand the fear brought by darkness, for those who can’t sleep without a nightlight on, we collected several study results that show the impacts of different color lights on the human body. Usually, red, yellow and orange lights do not interfere with melatonin production as much as blue, green and white light. Blue light does the worst for a user’s body. (The Huffington Post 2014, date of retrieval 10.03.2015) So why not making a nightlight in which it is possible to change color by a user’s preference, as well as integrating some other intelligent functions to improve people’s living life.

A wall lamp, also known as a sconce, is a lighting fixture that is secured to a wall in such a way that it only uses the wall for support, disconnecting it entirely from the floor. It provides a convenient source of illumination. Modern wall lamps are often used in hallways or corridors to provide both lighting and decoration in a long passage. (Wikipedia 2005, date of retrieval 18.03.2015)

Our research has shown us that a combination multi-function nightlight and wall lamp sounds like an attractive item for a very large demographic. For examples: people who have babies/young children, workers, and people who often travel. Thus, the Q Light product project concept is created, a color changing nightlight with smart capabilities and many other features to help people secure their home, and bring joy and convenience their daily lives.

Our team wanted to make this Q Light a cartoon panda shaped looking model instead of an or-
dinary boring nightlight, so the original physical design of Q Light came out as shown in Figure 2.

FIGURE 2. Q Light's original 3D rendering.

My work was to do a research and collect useful information on user-preferred smart light features, as well as on the appearance design that affects the fitting of supporting components, both within an acceptable budget. I also needed to write a project document for publishing this project on the Kickstarter website. The document would include:

1. Description for this project
2. Introduction of features
3. Project Schedule
4. Risks and challenges
   In addition to these four tasks, I needed to do a part of the final Kickstarter campaign marketing job too.
2 POSSIBLE FEATURES

The main idea of the Q Light project is a smart-nightlight design that not only spreads a soft and diffused light for you, but also brings various security features to a color LED nightlight, as well as many other useful features. Once paired with the Light, all the features can be controlled, activated, and deactivated with your phone by way of the mobile app anytime, anywhere. The App download details will be available in the future. This chapter lists all the interesting features that our team wanted to integrate with the Q Light, and every feature’s usage. Some of the possible features consideration is derived from another on-going project in the same company.

2.1 Remote monitoring system

Nowadays, there are thousands of reasons why people have to be away from home for either a short time or a longer period. Going shopping, working or vacation, home’s security and safety is always people’s first concern. People always wonder what has happened at home. Based on this thought, our team figured that it would be a good idea to design a non-obvious security camera on the front surface of the light. Users could simply access to this camera and make a real-time check about what’s happening at home by using the Q Light mobile APP when they are away from home. It is also possible to take pictures and send them back to the paired phone at anyti- me. Since the camera is hidden, people won’t have to worry about that it will attract an unwanted attention.

2.2 Remote motion detector

A built-in motion sensor can detect different movements. This feature can be used as an anti-theft alert system, or even as a gesture-control functionality.

Anti-theft alarm
The anti-theft alert system is a highly rated feature among our team members. When an anti-theft mode is activated, the motion sensor will keep an eye on any suspicious activity. When triggered, the Q Light will automatically send an instant notification to the paired mobile phone. This feature
is an additional function combined with the remote monitoring system: you can not only see what happens at home, but you can also record each moment when you feel it necessary.

**Gesture control light**

Our team is also thinking about programming another functionality, utilizing the built-in motion sensor. Gesture controls would allow users to control the light’s brightness and state. For example, you could dim or brighten the light with a swipe of your hand.

**2.3 Remote smoke detector**

In many countries, people are required to install smoke alarms at home by law. For example, in the USA, every private home in several states must have working smoke alarms. (FEMA, The United States Fire Administration State-by-State Residential Smoke Alarm Requirements 2010, date of retrieval 19.03.2015) In Australia, “All NSW residents must have at least one working smoke alarm (sometimes mistakenly referred to as “smoke detectors”) installed on each level of their home. This includes owner occupied, rental properties, relocatable homes or any other residential building where people sleep.” (NSW government 2014, date of retrieval 19.03.2015)

In Canada, “Every home in Ontario must have a working smoke alarm on every story and outside all sleeping areas.” (Ontario Ministry of Community Safety & Correctional Services 2012, cited 19.03.2015)

Without any doubts, smoke detectors play an important role in our life’s safety. Normal smoke detectors sense fire smoke, and emit a loud, distinctive sound to provide an early warning that can make a difference between life and death. They can indeed save many residents’ lives and property.

With a remote smoke detector, users away from home can be sent a notification when danger strikes. The alarm can then inform neighbors that there might be a fire in progress next door. After users receive the notification, it’s possible to check home from the camera, and decide whether or not to turn off the alarm if it was merely a false positive one.
2.4 USB Charger

There is no doubt that people spend an increasing amount of time with electronic gadgets these days, especially with mobile phones. ExactTarget published the “2014 Mobile Behavior Report” online, compiling the mobile activity of 470 smartphone owners (205 of whom also own tablets). They utilized Luth’s ZQ technology for the study, which was active from Dec. 15, 2013, to Jan. 15, 2014. It shows that: “on average, consumers spend 3.3 hours each day using their smartphones; and 85% of smartphone owners say a mobile device is a central part of their day-to-day life, with 90% of those ages 18 to 24 in agreement.” (Salesforce marketing cloud, 2014, date of retrieval 23.03.2015)

Another survey from Baylor University has found out that female college students spend an average of 10 hours a day on their cell phones, while male students spend nearly eight hours (Janice Wood, 2014, cited 25.03.2015).

Portable USB charger
As cell phone functions increase, the amount of time people spend on checking emails, texting, mobile games and Internet surfing increases, too. To avoid a perpetually dead battery, a reliable, portable power bank suddenly comes in as a life necessity. If Q Light could be used as a portable USB Charger, it would satisfy if not exceed the power needs when you’re away from a reliable source (like a short business trip or a long holiday vacation).

Extra USB charging port
Having various electronic devices that need to be charged at the same time sometimes creates trouble when one runs out of nearby USB ports. Equipping an extra USB charger to Q Light can solve this problem.

Fully charged reminder
A damage caused by overcharging batteries has long been a bothersome quirk of electronic devices. Even though a majority of electronic products nowadays uses lithium-ion batteries (which have a built in circuit protection to prevent overcharging), there still is a popular belief that overcharging somehow spoils a battery's life. According to a report from a website GADGETS TO USE (Abhinav Singh, 2014, cited 30.03.2015), it is true that lithium-ion battery can not be over-
charged. However, leaving a mobile phone plugged in all the time does make the battery switch between discharging and charging modes constantly. This process causes the battery to overheat, thereby reducing its overall lifespan.

To keep this from happening, we could integrate a feature that automatically turns off the charging circuit as soon as the device is fully charged. We also wanted users to have the choice to receive a fully charged reminder message on their phone or tablet.

2.5 Wireless speaker

Music player
When users want to fill a room with music, but there isn’t a music player nearby, Q Light can be turned into a hands-free music player. We wanted to equip Q Light with a high quality, built-in Bluetooth speaker, with which in the presence of WIFI, users can play all of the music from a paired smartphone/tablet’s playlist.

For convenience, there is also an idea of building a TF Card Slot into Q Light. The total storage expansion size would cap at 32G. Users can transfer their favorite music to the TF Card and play it through Q Light.

Voice message
Sometimes when we are outside and trying to think about what to do once we get home, we may feel rather productive, only to forget all about it later. Wouldn’t it be nice if someone could always remind us? This feature was also planned; the ability to leave yourself/your family a voice message directly through the Q Light App. Users need to simply record a voice message, send it to Q Light, have anyone pass by, and the message will be played automatically. A notification will also be sent to the paired phone once it’s finished, so users will know this message has been heard.

Sleep music record
This feature works nearly the same as the voice message functionality, but you can pre-record it and store it on the Q-Light for multiple playbacks. If you have a baby, but are too busy at work or some other reason, you can sing a lullaby into Q Light, and it will sing to your baby just like you are here with them.
2.6 Color changing lights

Notification Reminder
When this notification reminder feature is on, the light will either flash or constantly change colors upon receiving a notification. For instance: a missed phone call, a text message, etc. Users can set their preference for the reminder style.

Dance with music
When this mode is activated, the Q Light intelligently provides a light show by 'listening' to any nearby music it detects. The lights will "dance" to the music, changing color and brightness with the rhythm. Users can personalize the show based on their mood, or with presets. Users can even create a lightshow for parties.

2.7 Sound Sensor

Remote noise alert
When holding a party at home, it’s usually hard to realize how much noise people are making in such an already noisy environment. In order to not bother neighbors, it would be a good idea if someone could remind us every time the ambient noise level gets too loud. That's why we were thinking about to integrate a noise sensor with Q Light. When the noise alert mode is on, it will send a push notification to user’s phone, if the noise is getting high. Users could also set the light to change to a different color, or pulse colors when the volume of the room goes above pre-set thresholds. As a small reminding device, we believe it would help users to maintain a good relationship with their neighbors.

Sound control light
Another possible way to light up the Q Light is by sound. It could automatically light up upon detecting the selected volume threshold. Hand claps, footsteps, or whistling would all work fine as long as they break the volume threshold.
3 INTERVIEWS OF POTENTIAL CUSTOMERS

I analyzed the results of two online opinion surveys of potential users. The first survey ([https://suurv.es/7112](https://suurv.es/7112)) was created in December 2014 on Survmetrics.com. This survey was for another ongoing project at the same company. The other survey ([https://www.surveymonkey.com/s/N2KTPVD](https://www.surveymonkey.com/s/N2KTPVD)) was created somewhat recently in January 2015 on Surveymonkey.com. In order to spread both surveys, I used 3 different methods.

- Social media platforms
- Email
- Internet forums

One effective method of proliferating the survey I used was to send the survey links directly to friends on different social media platforms such as Facebook, Twitter and LinkedIn. Asking everyone whom I sent the links to also send it to all of their friends resulted in a very wide collection of participants. The second method I used I discovered to be very convenient. My school's internal email system has an alias in place that relays an email to every student and faculty member. Simply sending the link to that alias allowed me to reach every student and employee of Oulu University of Applied Sciences. Lastly, I posted the links to threads on some popular public community forums, such as The Student Room, KickstarterForum, and the like.

So far, in the first survey, there were 65 participants in total, 48 of which completed the survey while 17 did not. 126 people successfully completed the second survey.

Seen in Figure 3, 24.58% of the 48 surveyed thought that a portable USB charger would qualify as a necessity. This edition was the most demanded followed by a remote motion detector (19.49%), a wireless speaker (11.86%), a remote monitoring system (10.17%), a remote smoke detector (8.47%), a notification reminder (8.47%) and a remote noise alert (1.69%). As an air quality assessment feature is not in one of our possible features selections, we won’t take it into consideration.
From the list of features shows below, which of them do you think would be COOL to put on this smart lamp? (select all that apply)

**Question2**

<table>
<thead>
<tr>
<th>Options</th>
<th>Quantity</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remote monitoring system (real-time check in and taking pictures using mobile APP)</td>
<td>12</td>
<td>10.17%</td>
</tr>
<tr>
<td>Remote motion detector (secures home, send usual movement notification to your mobile phone)</td>
<td>23</td>
<td>19.49%</td>
</tr>
<tr>
<td>Remote smoke detector (send alert message to your mobile phone)</td>
<td>10</td>
<td>8.47%</td>
</tr>
<tr>
<td>Portable USB Charger</td>
<td>29</td>
<td>24.58%</td>
</tr>
<tr>
<td>Air quality measurement (temperature, humidity, noise, etc.)</td>
<td>18</td>
<td>15.25%</td>
</tr>
<tr>
<td>Wireless speaker (play music from mobile phone’s playlist)</td>
<td>14</td>
<td>11.66%</td>
</tr>
<tr>
<td>Notification Reminder (missed phone call, text message, etc.)</td>
<td>10</td>
<td>8.47%</td>
</tr>
<tr>
<td>Remote noise Alert (send alert message to your mobile phone)</td>
<td>2</td>
<td>1.69%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>118</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

**FIGURE 3. The COOL result of survey 1.**

Figure 4 shows the distribution of features that people didn’t think to be necessary to add to Q Light at all. 18.53% of people disliked the remote monitoring system and the remote smoke detector, followed by the notification reminder (12.96%), the remote noise detector (12.96%), the remote motion detector (8.33%), the wireless speaker (7.41%) and the portable USB charger (6.48%).
As we can see from both the “like” and “dislike” figures shown above, users highly rated the portable USB charger, remote motion detector and wireless speaker as their favorite features. The remote smoke detector, remote monitoring system, notification reminder and remote noise alert were not what they preferred to have on Q Light.

The second survey’s results are shown in Figure 5. I sorted them in an order that shows users’ preference very clearly. In these two charts, we can divide all the selections into 4 main parts: Features that users would like to have, features that users thought to be unnecessary to have, features that some users thought to be useless while others thought to be useful, and features that users thought to be useless nor useful.

The features users most liked were the PIR (Passive Infrared Sensor) motion sensor switch, light sensor switch, colored LED lighting and the USB charging port. The features users deemed unnecessary were the ‘Dance to the music’ and voice message functionality. The features that got mixed reviews were the Anti-theft alarm and instant photographs, and finally the Fully charged reminder, sound sensor and sleep music were all features that users found neutral across the board.
FIGURE 5. Results from survey 2.

The motion detection functionality was highly rated in both of the surveys, and therefore, it will definitely be one of the features we will add to the Q Light. To facilitate this, an IR (Infrared) detector will be put in the panda’s nose. Then, after gently redesigning the eyes, the project’s structure and final design rendering picture can be seen in Figures 6 and 7.
The smoke alarm feature will be dropped. According to one survey: “Almost all adults (96%) have smoke alarms in their homes, with more than two in five (42%) owning two to three; hallways are the most popular area for people to place them, while 42% reported having one in each bedroom.” (National Fire Protection Association 2010, date of retrieval 01.04.2015)

As we can see, nearly everyone already has at least one smoke alarm at home. It's not very necessary for them to add yet another one in the same room. Also, smoke alarms are usually installed on the ceiling, or high on a wall, while nightlights are usually placed low on a wall. Plugging a Q Light into a normal place could easily cause “unwanted” alarms if users forget to turn this feature off. The size of the Q Light also matters. The main component of a smoke alarm is a smoke sensor; the size of a single standard MQ-2 smoke gas sensor is 19mm x 23mm x 15mm. This is
too big for a small nightlight. We would rather save space for more components to be used in other features.

Users didn’t show much interest in the remote noise alert function, while our team had anticipated the opposite reaction from the beginning. I researched on Google Play and the Apple store; and there are quite a lot of free mobile APPs that act as a sound manager alarm. Many of these alert users by sending a push notification when noise is too loud. Many users’ feedback shows that these APPs work very well. Maybe in the future we will design a special version aimed at school usage, but for now, we will abandon this feature.

Market Survey results show that people prefer the Ordinary and Cartoon appearances (Figure 8). If the Kickstarter funding goes well, there is an idea to make the Q Light into a series product with two types of appearance: one cartoon, and one ordinary. Users will be able to choose their preference. The cartoon panda series already has sketches for the future designs (Figure 9).

![Figure 8](image8.png)

*FIGURE 8. People’s preference on Q Light’s appearance.*

![Figure 9](image9.png)

*FIGURE 9. Q Light’s series appearance design.*
It is also a stretch goal (A stretch goal is a funding target set by the project creator beyond the original Kickstarter goal. Stretch goal as a term and a practice emerged from the Kickstarter community as a way for creators to "stretch" beyond the initial, official goal of the Kickstarter project and raise more money (Kickstarter 2015, date of retrieval 05.04.2015)) and if it is reached, we will design two types of appearance: one cartoon and one ordinary. People will be able to choose their preference.

We knew that turning this nightlight into a portable power bank was a very welcome feature according to our user investigation, but technically, it would be hard to put a battery with a huge capacity into the Q Light and still keep the same product size. If we insisted on keeping this function, then we would have to either increase the product’s dimensions or add a much lower capacity battery. Neither of these sounded very reasonable, so we made the decision to abandon this feature completely instead.

As we can see from Figure 6, this light is powered directly from a power socket. The device itself does not have a battery. In other words, this device is not portable. The design decision to omit an internal battery was made based on several reasons:

1. Size Limitations. It’s not easy to add a battery with a huge capacity to the Q Light, since the light’s dimensions are 78mm x 72mm x 33.6mm.

2. Technical issue. In order to let all the functions work under the battery power for a long time, each feature would require a very low voltage consumption. We are still working on this technical issue.

3. Shipping and monetary issue. Since Kickstarter is a worldwide crowdfunding website, this product will ship globally in the end. A battery-involved product has many limitations in an international delivery. According to survey results, a majority of people are willing to pay 20 - 40 USD for one Q Light, so at the moment we want to minimize the production and shipping costs to meet user’s desires.
If the funding goes very well, we will be sure to design a battery-powered version, allowing the Q Light to be able to operate anywhere.

49 people left comments at the end of the second survey - some of them pointed out the shortcomings of the Q Light. I've compiled a list of all of their suggestions, and how we will try to improve this product to make it a better one.

A power cord - Consider the fact that in many countries the power sockets are in different places, and most of them hidden behind furniture.

- Solution: an extra extension power cord shown in Figure 10 will come with the final product to meet customers’ use behavior.

![FIGURE 10. Extension power cord.](image)

- Security - Since the Q Light can connect one’s home to Internet, hackers might have the chance to view user’s home.
- To make the camera angle adjustable - It's useless if it's just in some corner pointing nowhere.
- To make it able to plug into power sockets of different countries.

Solution: an extra power adapter shown in Figure 11 will come with the final product; so all users among the world can use this Q Light without worries.
FIGURE 11. Power adapter.

- Attachable to a child's bed for a baby monitoring.
4 SELECTED FEATURES

The final product kept 6 main features from the possible features selection, and expanded some small changes to make this device better. In this chapter, I will explain the reasons for abandoning one feature but keeping another one regardless of what was explained in Chapter 3.

Over all, Q Light is a smart nightlight to be controlled completely from a user’s phone. There are no switches or setting interfaces on the Light body. The operation itself simple and convenient: merely connecting to WIFI and configuring the lamp with one key. Users will be able to enable all the features discussed below, select a color, dim the lighting, or turn on and off the light, monitor the home and customize sound from within the app.

Users can also set the light’s schedule through the app. For example, complex programs can be set to turn a light on and off multiple times in a single day, different times can be set for each day of the week, or on/off cycles based upon groups of days can be scheduled, all with the same customizable color options. The listed trigger conditions (light sensor, body sensors, sound sensors) can also be combined to be activated independently of the schedule.

4.1 Colors and Brightness Control

The Q Light color is optional. There are millions of colors to be chosen from the mobile app. People can enjoy a variety of colors that fit their activity or mood. Also, it is simple to adjust the brightness from dim to bright or anywhere in between. The maximum brightness can illuminate 30 square meters of space. When turning on/off the night lamp, the (de-) activation of the light is a gradual process allowing people’s eyes to adjust to the change in light more comfortably.

4.2 Smart Startup and Shutdown

In a perfect world, all lights would simply be on when you want them to be, and never need to be manually shut off. But Q Light is fully automatic to this end.
Light Sensor
With a small energy-saving function, the smart lamp can automatically detect an ambient light intensity. It is so environmental-friendly that when the ambient light is brighter than the preset, the lamp still will not light up.

Body Sensor
One of the original ways to control the light is a gesture control, but we discovered that in order to let this feature work very well, the background has to be a high contrast stationary and with ambient lighting conditions, otherwise, the recognition of different gestures is very likely to make mistakes. Also, in this gesture control mode, if a user is doing other things with a hand motion, then it might send a wrong signal to the light, and lead it misunderstanding user’s order. In this case, we turned the gesture control light feature into just a normal body sensor; now Q Light can automatically sense a motion within five meters. With this option selected, the light will deactivate after 20 seconds of stillness.

Sound Sensor
Q Light can also detect nearby sounds within 10 meters. It will automatically light up upon detecting the selected volume threshold. You can adjust the sound level to match your needs (such as footsteps, but not a cat purring).

4.3 Home Alarm Monitoring
Q Lights are thoughtfully designed to bring peace of mind through an easy and accessible means.

Anti-theft Alarm
When the anti-theft alarm mode is set, the light takes a picture and sends an alert to your phone (or tablet) whenever a motion is detected. This way, a user always knows what's going, what caused the alert, and can make a decision on how to react. Q Light comes with a high efficiency infrared light, potent enough to illuminate up to a distance of 10m. Even at night, you can still get clear photos.
Monitoring Camera

If a user just wants to see what's happening at home, they can instruct their Q Light via the mobile app to take a picture and send it back to them at anytime.

4.4 Speaker

Since this nightlight is not portable at the moment, it's not very useful to add a wireless speaker to this product. One reason is that most people already have at home a laptop or a real music player, which has a better speaker quality than the speaker we were planning to add to this Q Light. Another reason is that when pairing a mobile phone with the wireless speaker to play the music from the user’s playlist, it consumes the phone’s battery quite fast and eats its own electricity, too. It's not very environment friendly and money saving from the customers’ point of view. Therefore, we cut this wireless speaker function.

Voice Message

If you have a baby to take care of, but are too busy at work, or otherwise not at home, you can record a lullaby and send it to Q Light. Your Q light will sing to your baby just like you were there with him/her.

If you have a reminder to your family or even yourself, record it and send the voice message to Q Light. When someone passes through, this sound will be played automatically, and a notice will be sent to your phone once it has finished, so that you know that this message has been read.

Sleep Mode

Q Light's sleep mode provides a warm and cozy atmosphere to support a good night's sleep. It comes loaded with audio presets to help in both falling asleep and staying asleep. Soft nature sounds, such as bird songs, wind, rain, the ocean, and other ambient music can help to lull you into a dreamland. When it is turned on the dream mode, the device starts to play your choice of music and dims the light to a preset level. In approximately 30 minutes (adjustable), Q Light slowly turns down the light and music until it reaches the minimum level, setting a relaxing atmosphere that leads you to a sweet sleep. Finally, Q Light softly switches off the music and light.
Gently Waking Up Mode
More and more people are becoming concerned with both their physical and emotional health. Most people believe that waking up to a jarring alarm sound is no longer a good decision, since it stresses your body and can bring along anxiety. One of Q Light's alarm modes allows users to wake up in a natural and gentle way. It is good for adults who want to wake peacefully, as well as older children who want to get up on their own. The soft sound alarm clock works in almost the same way as the sleep mode. When the pre-set alarm is triggered, the Q light will play your choice of music and slowly raise the music volume up to a normal level to wake you up in a peaceful atmosphere. The music will ramp up slowly over about 15 minutes (adjustable), so you can choose to snooze or turn off the alarm clock from the APP.

4.5 Color changing lights

When this mode is activated, the Q Light intelligently provides a light show by listening to any nearby music it detects. The lights will "dance" to the music and change colors and brightness with the rhythm (the beat and frequency of music). One can personalize the dancing show by playing different styles of music, and even by creating light shows for a party!

4.6 USB charging port

The Q Light is equipped with a standard USB-A charging port. At the fastest possible speed, it can charge tablets, smartphones, and all devices that use an ordinary USB charger.

We dropped the fully charged reminder feature due to some technical issues. The way we programmed this feature makes it use a lot of internal memory, which occasionally slows down some devices. Considering that users won't be happy with a small function which takes lot of CPU, and needs a detection wire costing about $1, which is not cheap because the total cost of this product should be limited to $25 for each one, we decided to drop this feature at the moment, and maybe will integrate an upgraded version to the future products.
5 Q LIGHT KICKSTARTER MARKETING POSSIBILITIES

We wanted our product to be known in every corner of the world. Nowadays, the only way to cater to a globalized market is with online marketing. Before the final product was launched on Kickstarter, we had already tried to use surveys as one of our product marketing tools. Everyone who helped us by reposting our survey or even a link to our kickstarter campaign page on various social media systems will get a special marketing price for the Q Light. We also offered a "lucky draw" at the end of the survey: anyone who joined the survey would get a special offer on Kickstarter, and a chance to win the final lucky draw – a free Q Light. We also prepared several press releases and videos, and are ready to spread them via different online marketing methods in four main ways: Social media system, direct Email, News websites, and popular forums.

5.1 Social media system

Popular social media websites include LinkedIn, Facebook, Google+, Twitter, and Pinterest and joined several groups on these websites to better expose our product. Our team members working on the Q Light project, even before the Kickstarter Campaign was started, promoted it on their personal Social Media pages. This initial flush of marketing helped a little bit. I attempted to grab the attention of various crowdfunding and new technology related establishments via their Social presence with hopes they would be interested in the Q Light. The results were less than ideal - only some old partners with whom we had dealt with before had any interest (and only replied via LinkedIn). I also tried searching for the keyword “nightlight” or “smart light” on Twitter, and then tweeted the Q Light’s short introduction to everyone who was currently talking about nightlights. I did the same thing on Pinterest as well, but none of these attempts really brought us much traffic.

5.2 Emails

About 300 of the users who participated in our previous projects (not only in the Q Light project, but also other projects) left their contact information. I sent them a promotional letter of the Q Light, hoping they could support us this time, too. I also sent a promotional email to our old business partners who had done business with us before with more details of technical parameters and business concepts with hope they would be interested in this project and we could do bu-
siness with them again.

From those who actually replied at all, 10% said they would help to promote our Q Light. Most of them were our business partners, while 6% of others replied my email by giving us their personal opinions and comments.

5.3 News websites

Besides social media networks and emails, two other team members and I also wrote several promotional articles. We searched for different media websites which could help us publish them either free or with minimal costs. I checked some successfully funded Kickstarter projects, and many of them showed their media supporters on their funding page. I sent emails to up to fifty different projects related websites all over the world: Dailymail in the UK, Geeky-gadget, and CNET, among others. Unfortunately, none of them ever replied. I realized that this method isn’t a good way to go about contacting them since there might be hundreds or thousands of people who contact them everyday. And since this Q Light is not made by a famous brand, they wouldn’t have obligations to do anything to promote it for us. I searched some free websites for example: hackster.io, scoop.it, crowdfundingpr.org, etc. where you can be your own publisher with technical project related articles, and posted our articles with them.

We also proposed to pay a small fee and asked some PR (Public relations) agencies to post our articles on different online media venues, but it turned out that the money was wasted as all the articles were published on very small websites. No one I asked had ever even heard about those websites.

5.4 Popular forums

There are quite a lot of crowdfunding forums where you can post your projects for free. After the Kickstarter campaign began, I created a discussion topic for the Q Light on a site called Smalltoday. Its purpose was to get people’s feedback, as well as capture potential users’ attention. With 110 views, we got 6 quite useful feedback items in total; this brought us a little more traffic. I also posted the project on Kickstarterforum, crowdhunt, and Reddit, but not many people showed their interest in those venues.
Besides these online promotions mentioned above, I also tried to contact Kickstarter employees to see what they think of the Q Light. My goal was to see if we can get a “Staff Pick” badge from them, but unfortunately, I didn’t get any response. I also sent emails to other, previous Kickstarter’s small project’s designers. I got several replies with their own experiences. Here I will list other marketing methods, which they recommended:

1. Go to some huge tradeshows before the Kickstarter campaign, for instance: the CES(Consumer Electronics Show) by TechCrunch. It will usually bring you some media coverage.
2. Be picky with PR agencies. A trustable and professional PR agency, helps you with the media coverage a lot. But usually it is not cheap.
3. Find a local sales & marketing specialist, it can be very helpful since they have their own resources and networking which helps spreading the product information in different types of marketing promotions.
4. Contact and send a demo product to different product review websites globally, hoping that their journalist can write some articles about the product and draw others' attention to it.
CONCLUSIONS

The aim of the thesis was to document the planning phase and marketing strategy of a Kickstarter project called Q Light. When the Q Light project was still a sketch on a paper with a list of various possible features that could be integrated, a survey was created to analyze potential users’ preferences. Several features were chosen to be added to the Q Light in the final product model. While dealing with the technical issues of the Q Light, a simple and basic marketing plan was made.

Although the Q Light Kickstarter campaign is ongoing, we can unfortunately see its failure on the horizon. The amount of funding we mustered ($2,126.00) and how many backers (48) backed our project are not promising numbers given the production costs we face. The idea was great, but due to a lack of marketing experience we did not get enough traffic to this project. According to bitly.com (a URL shortening service website which also has a simple traffic tracking service), we only got 2,293 unique visits in total, which was very far from our goal.

Overall, the Q Light project could have gone much better than it did, if various precautions and plans had been made and taken. According to a Kickstarter specialist’s recommendation, the social media marketing should have started at least three months before launching the campaign. Since we didn’t fully prepare, all the marketing and promotion felt rushed. One thing that would have had a bigger impact was our neglect to create an official social media account for our product. Potential users had no page to "like." This means that a viral spread of our product could never have taken place. We only ever used our personal accounts to promote this Q Light, while others spent months building up their social media accounts from a scratch to gain followers every day in the prelaunch phase.

Another thing that would have had a bigger impact was making an interesting introduction video with a high production value. The video on the campaign page turned out to be much more important than we had initially realized. Most people show their interest (or lack of it) in the product by only watching the project video on Kickstarter. Our video had lots of issues: the background story of this invention was not told, the shooting environment was unprofessional, and the narrative and
after effects were not nearly as high quality as they could have been. Since our video was made in quite an unprofessional manner, it was difficult to capture customers’ attention.

The main cause of the overall project failure, however, was that the project was too bland to have snagged the media’s attention without spending money. On it, a previous Kickstarter project we had was called Atomwear. Atomwear’s idea was quite unique and special; even without too much marketing work the news agencies went wild about it. But this time, since the Q Light is not special enough to draw users’ (and the media’s) attention, the failure can be predictable after a short period of time. In contrast to the Q Light, another similar product on the market is the Leeo. Even though Q Light has several additional features and lower price than the Leeo, their media coverage is much greater. Should someone Google for “smart nightlight,” hundreds of Leeo news reports show up, with only 2 or 3 results for the Q Light.

In the future, the remaining diligent about these plans and errors will hugely benefit the projects I work on. By paying attention to closing these productivity leaks, it will be much more likely to get a project off the ground and into users’ hands.
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