



Patcher

Service Design

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Zürcher Hochschule der Künste
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interaction
design

Bachelor of Arts in Design



Content

- Concept**3
- Introduction.....3
- Research.....4
- Personas.....6

- Business Plan**7

- Financial Plan**11

- Action Plan**13

Introduction

In the Context of a Service Design Module, Patcher was developed during six weeks in a team of four Students at the Interaction Design Bachelor. We had the Oysterlab as a collaboration partner.

The design challenge we had to solve was as follows

«Designing the experience of a **communication service for millennial patchwork families**, in a world **where personal goals and family responsibilities need to be juggled.**»

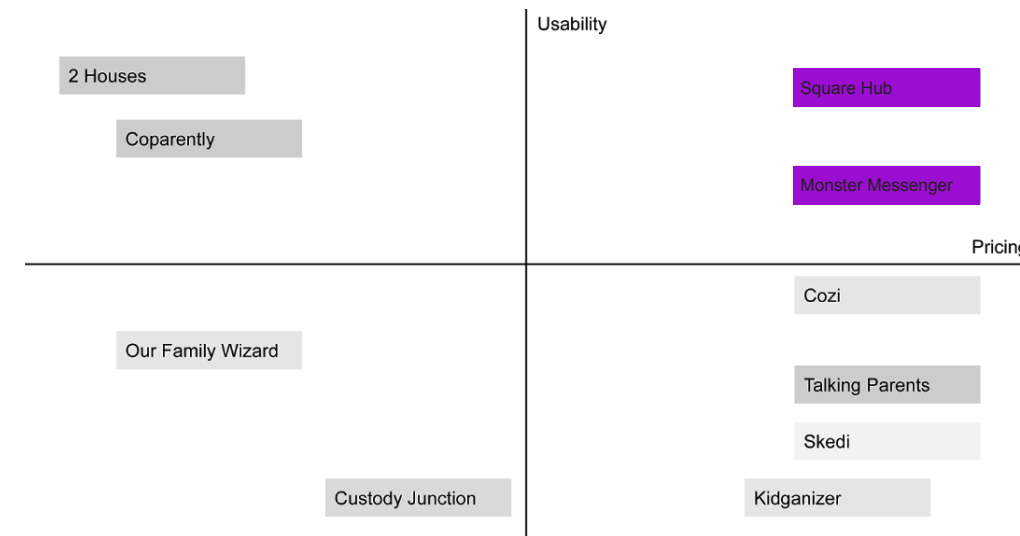
- Additional Criterias were
- able to be on the market in 1 year
 - digital (most important)
 - provide an entry point to the digital home = long-term goal (3-5 years)

The resulting multi-touchpoint service allows the user to play Smart games within his own four walls.

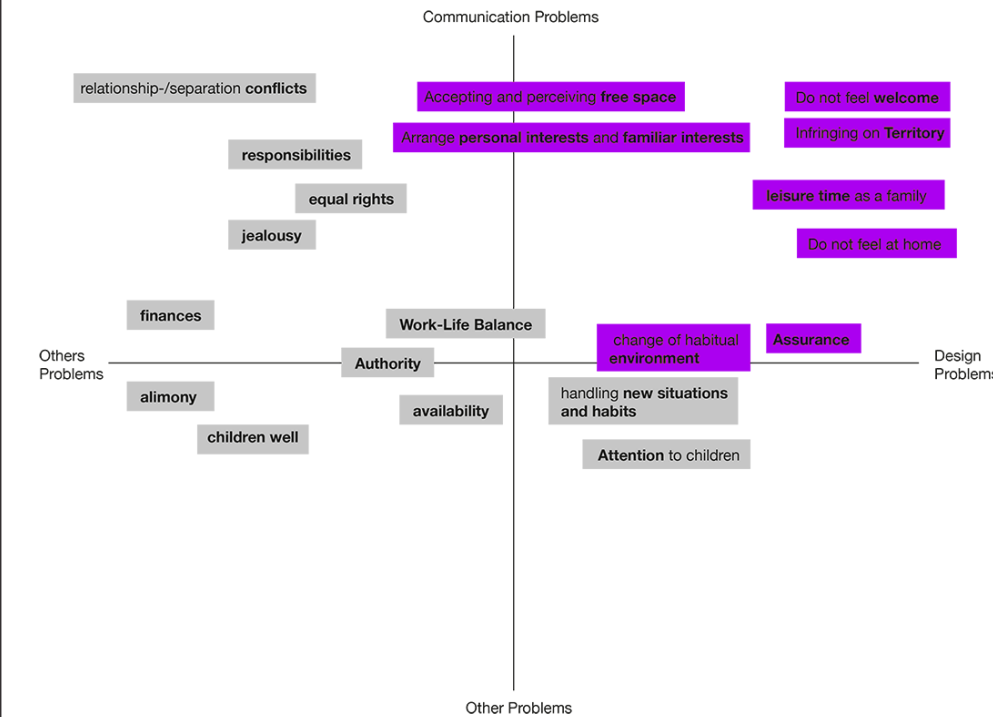
Patcher is a platform which provides a renting service for smart home appliances and an application to experience thrilling family games in your home environment. Enjoy the advantages of smart devices while gaining access to a wide range of games which are specifically designed to work with home devices.



Existing Services



Problem- and Design-Space



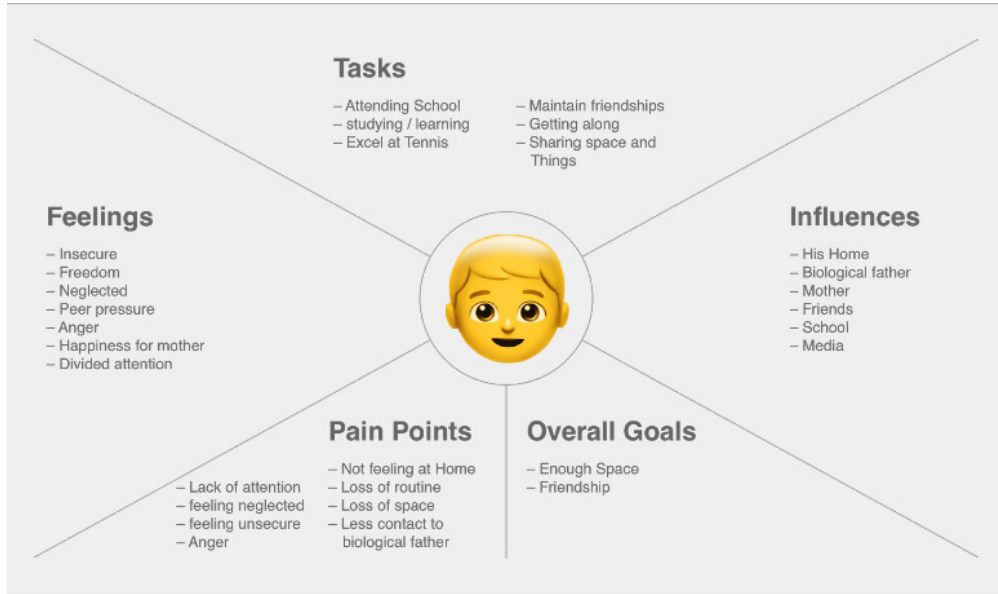
Research

In our research phase, we tried to find existing services which specifically focused on patchwork families. Many of these services were within the technology of a mobile application. Apparently, the issues which are tackled within these services usually contain organizational problems. Shared calendars or family reminders were very present, which we thought would most certainly be useful in situations where the parents do not really talk to each other anymore, but still need to organize who has custody over the child at what time. Other features which most of the existing services included were family chats, which apparently many parents like to use in order to maintain the overview and have a separate channel for family affairs. We tried to differentiate between these apps by putting them on an experience map and categorize them.

Nevertheless, as we read in the reviews of most of these apps, many complained about the costs. Which we thought was totally reasonable. The majority of these apps cost more than 50 CHF per year, and thinking that other services like WhatsApp or normally shared calendars on Google are free, we thought that these apps were clearly overpriced.

Other sources of our research included family Forums, self-help sites and of course Interviews. After these insights, we realized that there are a variety of issues that arise in patchwork families, from the lack of communication, the arrangement of personal interests to territorial problems. At that stage, we then tried to create an experience graph to structure our findings.

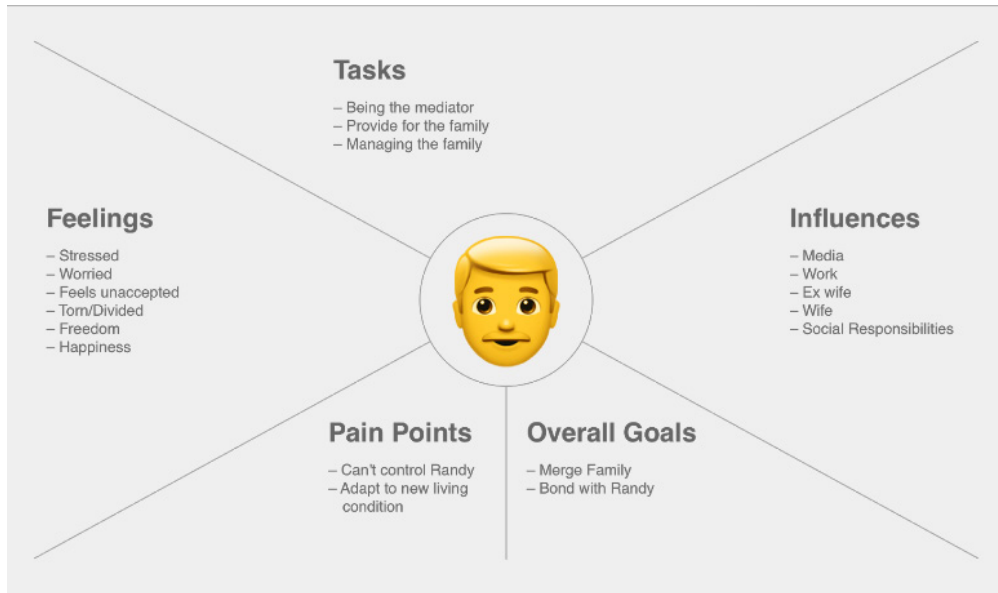
Randy (15)



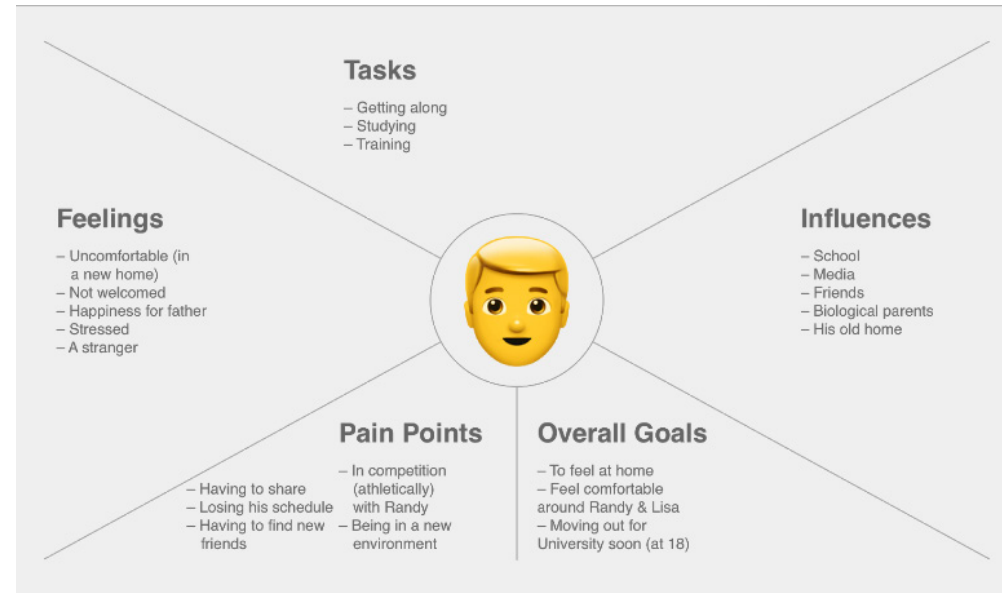
Lisa (45)



Peter (47)



George (17)



Concept



«How might we help a patchwork family to get along so they can feel at home?»

Personas

For our personas we created a family of four members:

Randy is our main person. He is 15 years old, and his parents have recently divorced. He's an ordinary boy, who likes to play Playstation at home, goes to school and loves playing Tennis. His mother Lisa is 45 and now has a new boyfriend Peter, who would like to move in with her. But Peter has a child as well, George, who is slightly older than Randy.

The scenario we used for our service was the specific time, where Peter decides to move in with Lisa and Randy. The grown-ups do everything in their power to make the children feel at home. But Randy does not really approve of the situation and feels uncomfortable with the whole situation. He does not feel like he has a choice and feels like his home has been taken away from him. We then created a storyline in which we basically show a day in the life of Randy, we, of course, exaggerated a little bit to demonstrate how unwell Randy feels.

Randy gets up in the morning, he would like to have a the shower, but his step-brother George already uses the bathroom. He then walks down to the kitchen, where he sees his stepdad having breakfast. His mom already left for work, so he's all alone with the new members of the family. Randy feels awkward, he does not feel like talking to him, neither wants to sit next to him without saying a word, which is why he leaves without breakfast for school.

Throughout the whole module, we used this scenario as our initial situation. We tried to find a solution to help Randy getting comfortable with Peter and George and feel at home again.

Conclusion

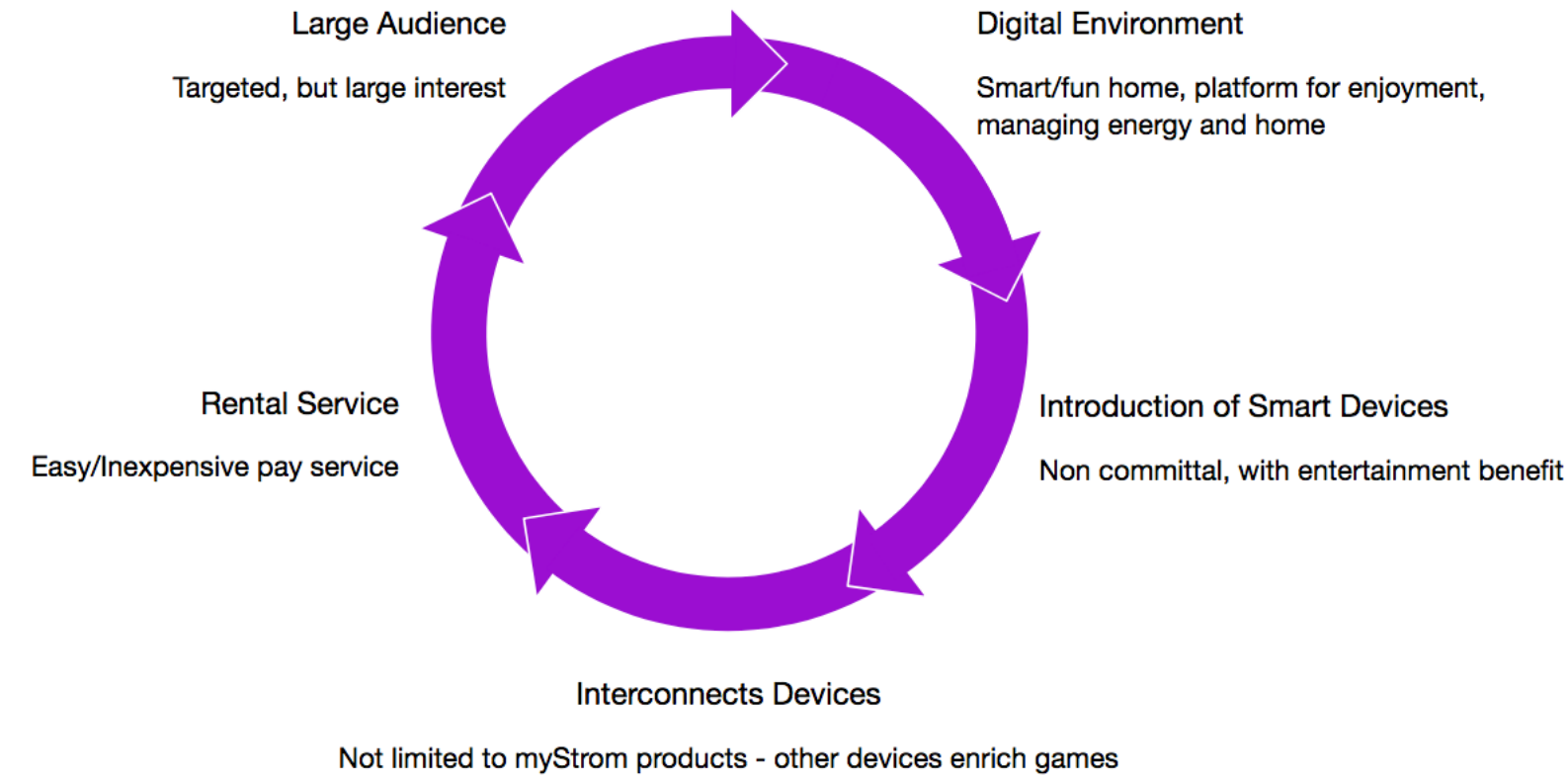
From our research, we centered around the problem of the feeling of awkwardness, and the lack of communication a newly formed patchwork family faces. We decided to create an end goal of a service that would work as an icebreaker between the patchwork family. We wanted our service to become a point of communication and connection between a step parent, step child, or other newly added family member. By aiding the relationship, we believe it would in turn help with the family feeling at home in their new situation.

How might we help a patchwork family to get along so they can feel at home?



Partners

The primary partner we introduce in our service is myStrom. In our service concept, myStrom provides the smart devices that Alpiq would rent out. However, there are many other potential partners and players within the entirety of our service. Other smart devices may come into play, both as potential smart device providers, and as potential technology for families to incorporate in their games. A second potential partner are the game developers. Game developers may be hired by our service, or may provide outside games that work with our concept. Game developers may also be important as a potential investor or in a way of creating a community of outside game designers within the service. Smart appliance companies could also be incorporated. The internet provider and delivery service are also key to making our service happen. Even though we suggest myStrom as the top partner within the service, many other companies and resources are required for our service to be successful.



Service Summary

Our overall service incorporates renting out smart devices, while providing a queue of games that are played through the devices. Although we originally concentrated on targeting patchwork families, as our concept developed, we found the service being an interest to any family or group. The devices we provide allow a family to create a digital environment within their own home. The games create a fun element to the smart home, while the rental service allows for an easy and inexpensive service. Our concept enables a family to be introduced to smart devices, in a non committal way, with the added benefit of an inclusion of entertainment. Although the service we created provides myStrom devices, our games work to interconnect many smart devices. As smart devices work through wifi, they can be easily connected and incorporated into our games. The games require the myStrom devices but can be enriched with the inclusion of the Apple TV, Amazon Echo, or other smart devices.



Website

+



Patcher App

+



MyStrom Devices

Touchpoints

As accessibility was an important point during our development of the product we valued easy touchpoints highly. Since most people own a smartphone, tablet or computer and making our service accessible through those devices was an obvious choice.

Website

Our first touchpoint is the website. It prominently features an explanation of our service alongside an introduction to the entire project. It leads you through all the steps required to get access to the myStrom devices, the renting process as well as the pricing range of the different kits.

App

Once you've ordered the devices over the website and subscribed to a kit, it gets sent to you via mail and from there on you use the app, our second touchpoint. Our app takes you through the entire process of setting up your devices at home. It acts as the game browser where you have access to all the available games and can browse through them. Each of the games provides you with a rating as well as user comments on how much they enjoyed playing it in their home. Once you've picked a game the

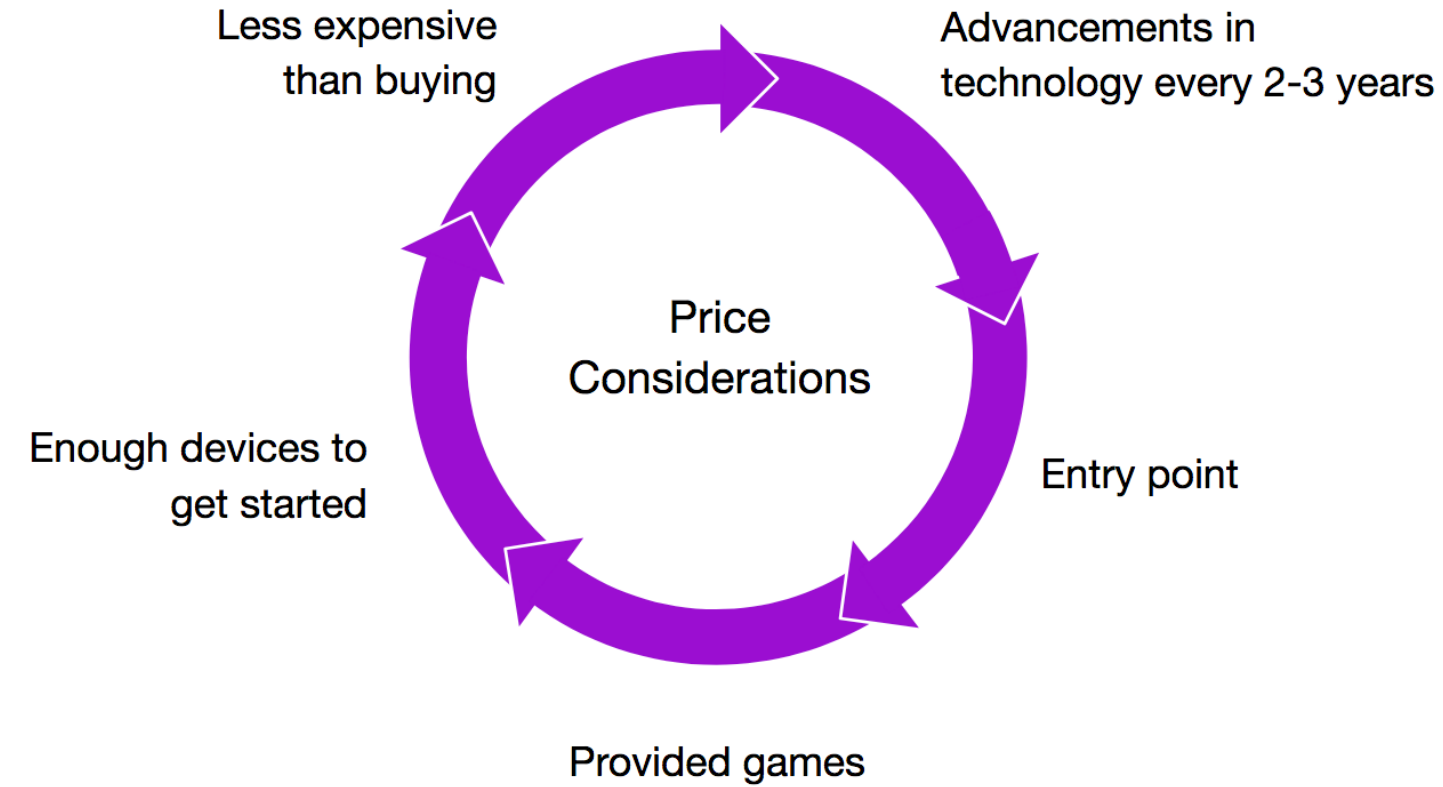
app takes you through the setup step by step and tells you where to set up the myStrom devices you've received. When the game is ready to be played the app might turn into another device which is involved in the game, this depends if the game uses the app or not obviously.

Devices

The devices you use to play the game are manufactured by myStrom, they are the final touchpoint and provide an interface you can play the games with. They transform the house into a playground using your home appliances. Your devices can communicate with one another over wifi through simple <IF x THEN y> statements. For example turning on a light in a room triggers another light in another room and sent a signal to the app so the player can see a clue on their phone.

The devices are:

- **SmartBulb**, a color changeable lightbulb
- **SmartPlug**, can determine if something is on or off and send a signal to your phone/e-mail
- **Button**, the button is used to remotely change the SmartBulbs colour or turn it on/off



Kits




Our subscription model, as well as the provided games, revolve around kits of devices you can rent. The kits themselves include devices from 1-3 rooms, or at least that was our initial thinking and how we generally divided our kits that way. The pricing for the kits is based on the thinking of 1 euro per device and seven devices per room. In the kits you get all three devices currently available over myStrom, so a bulb, plug and button. As we also assume that every bulb comes with a button as they are connected.

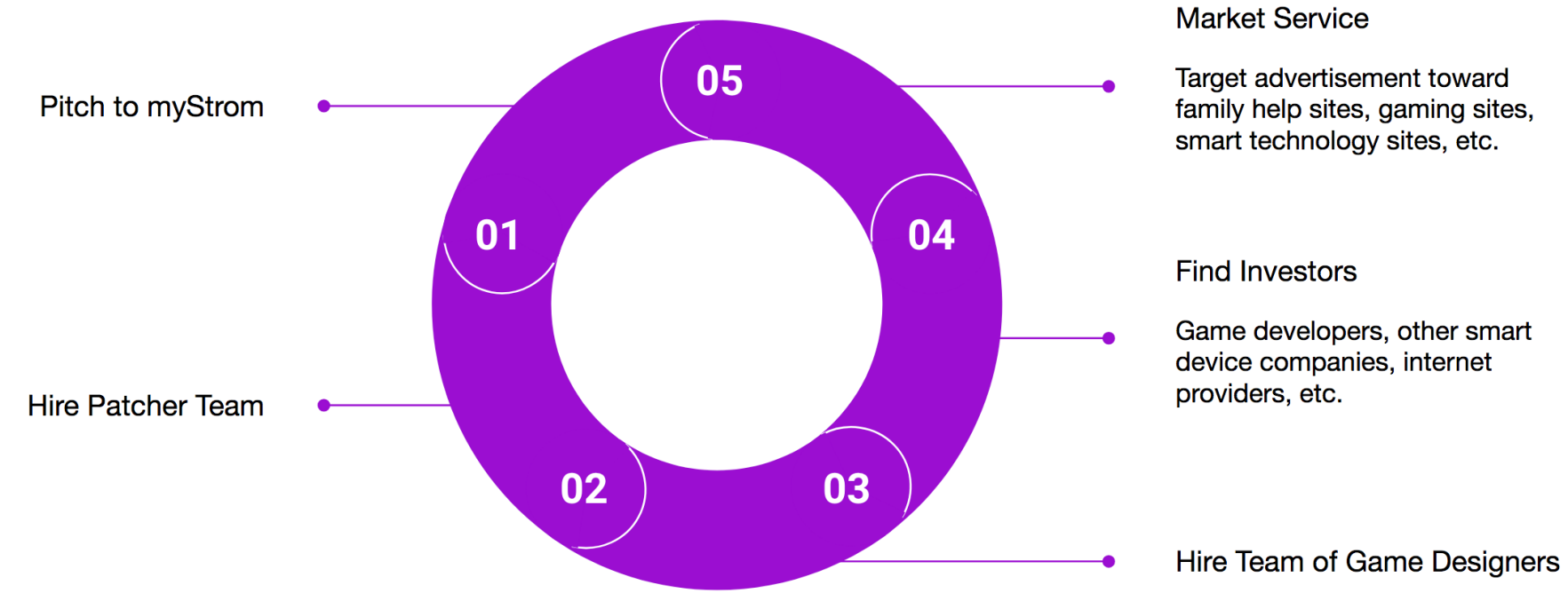
Financial

Our financial model works based on a renting subscription model. We decided to lower the barrier of entry even further with a cheap subscription service. Buying all of the devices we would provide costs with a large amount of money and would make a large amount of our target audience turn away without trying the products.

Our revenue streams are first and foremost the subscription service but also if anyone adds additional devices as well as clients buying the devices fully to install in their homes permanently.

The largest amount of costs comes from the devices that we sent to people. Additionally, we have costs for server maintenance, wages for both the infrastructure team as well as the game design team and delivery. Another potential issue is replacing devices which break, so providing a repair/replacement service would add additional costs.

		
Beginner Kit Full access to all the games* Patcher app, usable with all the myStrom smart home devices 7 CHF/Month <i>*Games working with a set of 3 Plugs, 2 Bulbs and 2 Buttons</i>	Advanced Kit Full access to all the games* Patcher app, usable with all the myStrom smart home devices 14 CHF/Month <i>*Games working with a set of 6 Plugs, 4 Bulbs and 4 Buttons</i>	Full Entertainment Kit Full access to all the games* Patcher app, usable with all the myStrom smart home devices 21 CHF/Month <i>*Games working with a set of 9 Plugs, 6 Bulbs and 6 Buttons</i>
Add devices +	Add devices -	Add devices +
<input type="button" value="Add to cart"/>	- 6 + myStrom WiFi Plug - 4 + myStrom WiFi Bulb - 4 + myStrom WiFi Button <input type="button" value="Add to cart"/>	<input type="button" value="Add to cart"/>



Action Plan

This is an action plan we've made with suggestions on what we think should be the next immediate steps in the development of the project.

Obviously securing the partner and setting up the infrastructure should have first priority because in a first instance the willingness of the cooperation partner would make or break the project. Secondly securing capital is another important step towards realising the project, as the project should already involve a team and some amount of development, money is going to be flowing out of the project as well at that point (wages, production, delivery, servers etc.). And lastly market the project to the target audience through adverts, help sites, gaming sites and tech sites. Starting a movement and a large amount of community involvement is crucial to the longevity of the project.