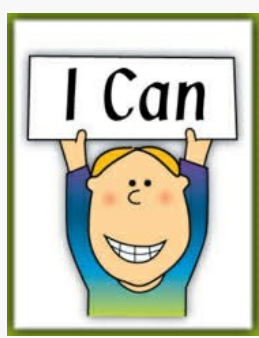


I-Can - Home automation for children, dogs and the elderly



Prepared by:
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group #12
30.06.2018

For:
#SheHacks2018

Goals

To enable independence and support with control and monitoring in the home environment.

Summary of Findings

From the research undertaken we found that there is a concern amongst parents about the amount of screen time children have or a reluctance to introduce a screen device too young. They would like their children to have independence but they want to control the content and actions available to the children. Through the interviews, we found that there were similar problems with fur babies, elderly and other groups that need support.

There are 2 types of personas the Carer, who wants the control and monitoring and their charge who wants independence. To start with we will focus on the Parent-Child relationship.

Skateboard features

What we plan to make today.

Using wi-fi buttons and a raspberry pi we will be able to control a light and play audio files. There will be a configuration interface.

Porsche features

Possible future features

- Environment monitoring
- Alarms
- Content access from the internet
- Time controls
- Replay controls
- Plug and Play
- Expandable
- Adapable



Parent Pat & Carer Charlie

"I would like my child to be able to help themselves"

Bio

Hi, I'm Pat and I am the parent of a Toddler, named Frankie. Frankie is a great child but sometimes they get a bit scared or cranky. I believe that children should be enabled to help themselves. I don't want to introduce my child to using tablets or screens so am looking for an audio solution to a visual problem. I need to have control over the content that they have access to and to be able to monitor when they use it.

Hi, I'm Charlie. My grandfather has just moved in with us and he requires support to do some everyday activities but is reluctant to ask because he has always been independent. I would like to enable him to have independence but be able to know when he is in need of assistance

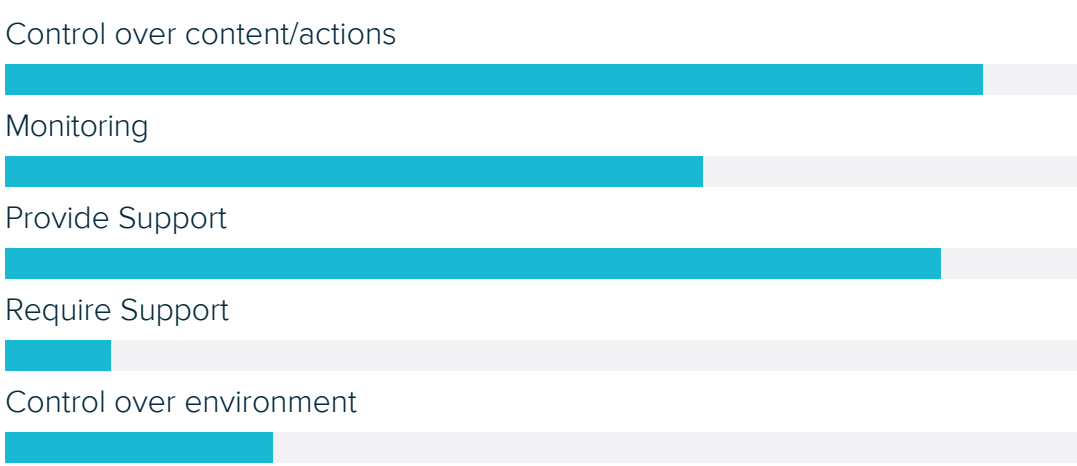
Goals

- Enable charge's independence while having control and monitoring over their environment

Frustrations

Currently, the available solutions require screens or voice recognition. Really don't want to introduce or increase screen time particularly at night.

Motivation



Independent Frankie

"I want to be able to turn my music on all by myself"

Bio

Hi, I'm Frankie. I'm 4. I like trucks and dancing. I get scared sometimes at night and I know that music sends me back to sleep. But I have to go and get mummy or daddy to turn it on for me. I want to be able to do it all by myself.

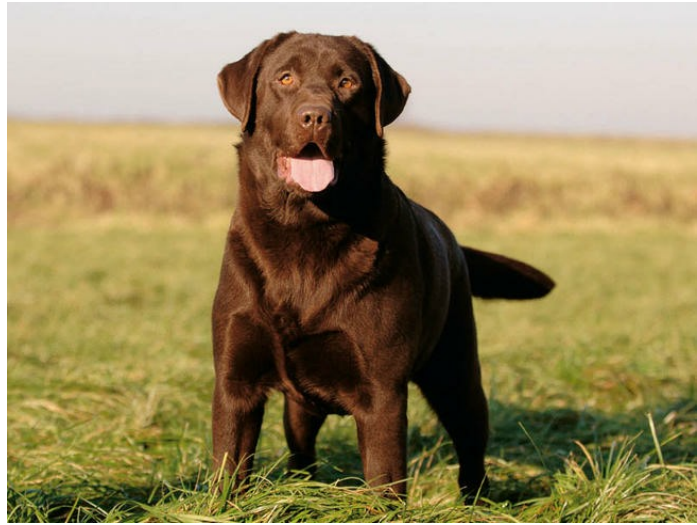
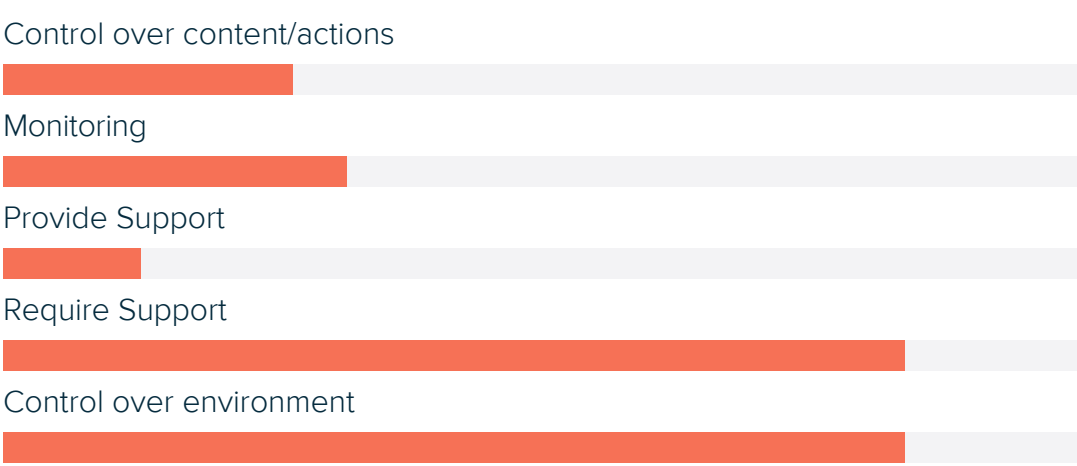
Goals

To be able to have independence and control over my environment.

Frustrations

Currently reliant on parents for environment control, entertainment and information.

Motivation



Anxious Andy

"I howl and get scared when there is sirens"

Bio

Hi, I'm Andy. I'm 4 like Frankie. I like food and being with my people. I get scared and howl when fireworks or sirens start up. It upsets the neighbours when I howl and bark. My humans would like to be able to calm me down but they aren't here.

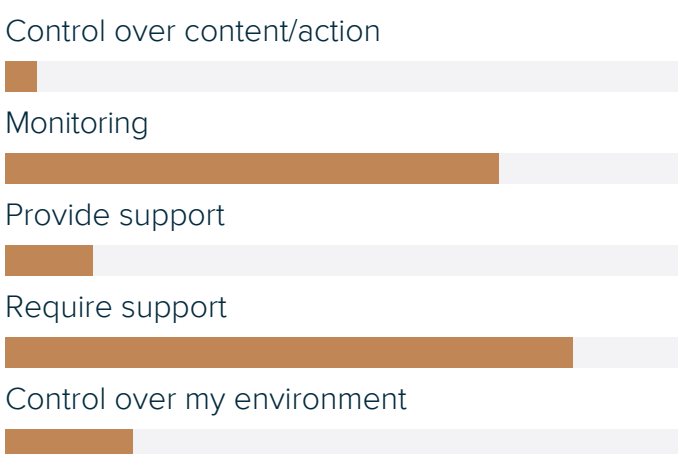
Goals

To feel safe and not alone and not upset the neighbours

Frustrations

My parents work and they can't be here all the time to protect me from scary things

Motivations



Elderly Eddy

"I needed to move in with my children but I don't like the loss of independence"

Bio

Hi, I'm Edward. I'm 84. I have just moved in with my kids after sometime in the hospital because I need a bit more support these days. I feel like a burden and hate people fussing over me but sometimes I do need their help I just wish I could get it when I want it.

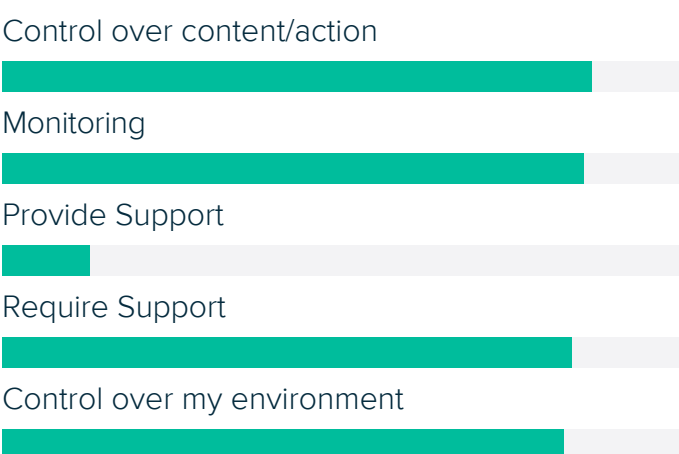
Goals

To be able to do things like I used to without people fussing over me.

Frustrations

I feel like I'm a burden and I don't like people fussing over me.

Motivations



Autistic Adam

"I have trouble being understood but I want to be able to do things myself"

Bio

Hi, I'm Adam. I'm 17. I like trucks and dancing. I get frustrated with not being able to be understood. I need to have more control over my life and have tools to get my carers to understand my needs.

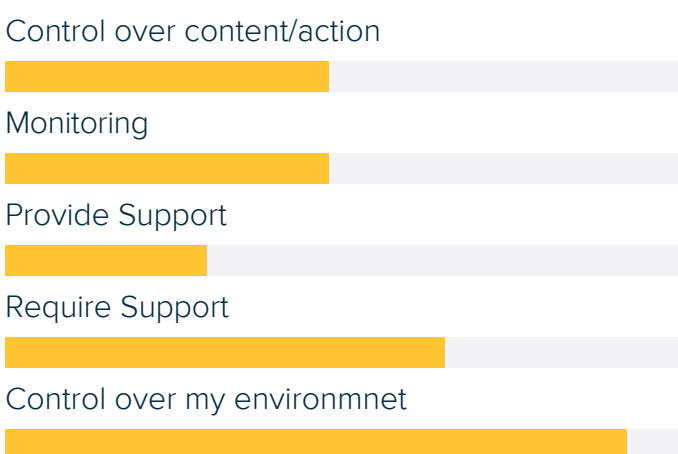
Goals

I need to be able to do things by myself.

Frustrations

I don't always have the skills to make myself understood.

Motivations



USER REQUIREMENTS

TYPE 1: SETUP, CONTROL & MONITORING

- Configuration interface
- Content upload/access
- Monitoring - of usage and environment
- Alarms
- Easy hardware integration - Plug & Play
- Time Controls - Duration & Time of Day
- Replay Controls
- Able to grow and adapt to changes in the requirements
- Override of the system - sleep mode, timeout

TYPE 2: UTILIZATION, CONTROL OF ENVIRONMENT & SAFETY

- Easy to reach controls/buttons
- Responsive to changes in the environment
- Content that I want to use
- Control over things I want to control

User Cases

- Music*
- Stories*
- Control over my environment*
- Access to restricted devices
- Plan for the day
- I'm in Trouble I need help
- I need to feel safe

*We completed these as part of the skateboard solution