# SAVE-A-BEAR

SCAN ME - APP WALKTHROUGH

**Human interactive device, addressing accessibility, emotional care, and the seriousness of teaching CPR to children all in the comfort of one's home.**

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## ABSTRACT

This project focused on the application of the interaction design process, design knowledge and skills to design interactions with a child size manikin for children to learn the CPR (cardiopulmonary resuscitation) technique. The interactions with the manikin should be designed to support haptic feedback to facilitate the children's learning. The research was conducted as a group utilizing various methods, including primary/secondary, PACT, competitive analysis, and affinity mapping. Research concludes that there is a need to address accessibility, emotional care, and the seriousness of teaching CPR.

These finding led to the creation of Save-A-Bear. This device assists in the transition to remote learning through it's physical and digital component and at-home training program. By creating this device, children will be well equipped with the skills to deal with any future medical emergencies, to take care of themselves, their loved ones, and the community.

## RESEARCH QUESTION

*How can we design an interactive mannikin for children to help them learn CPR techniques?*

This project is an application of the interaction design process, design knowledge, and skills to design interactions with a child-size manikin for children to learn the CPR (cardiopulmonary resuscitation) technique. As a designer and researcher, this project required to design actions (haptic in this project) and reactions with the manikin.

## USER RESEARCH

**Utilized various research methodologies to collect, organize and analyze data:**

### Primary Research

*Stakeholder interviews*
*Personal experiences*

### Methodologies

*Stakeholder mapping*
*Topic mapping*
*Affinity mapping*
*Personas & PACT*

### Secondary Research

*Research CPR technique and training online*
*View available CPR models & existing feedback devices*
*Watch videos going through the CPR process*

## INTERVIEW INSIGHTS

> *Learning CPR can be a sensitive experience for anyone under the age of 16.*

Christian, CPR Instructor & Nurse

> *Kids do not have the capacity to perform CPR on adults, which is why we introduce the practice in our babysitting course.*

Ada, Canadian Red Cross

## RESEARCH OUTCOMES

Despite having numerous CPR manikins and feedback devices available on the market, very few are specialized towards teaching **children** this essential skill. These key findings highlight the factors that should be prioritized when developing a CPR manikin for children.

**HAPTIC FEEDBACK, BASIC PROCESS**

**MANIKIN FEATURES, REMOTE LEARNING**

**ENGAGEMENT, TEACHING STRATEGIES**

## AREAS OF FOCUS

**After conducting the different methods of reseach, common concerns are summarized below:**

**Emma**
CPR instructor - Be Prepared

Virtual babysitting classes: to have parents picking up manikin to bring home?

**REMOTELY ACCESSIBLE**

**Ada**
Canadian Red Cross, First Aid Coordinator

Age 10-13 matches up with our babysitting course

**SPECIFIC TO TEACHING CHILDREN**

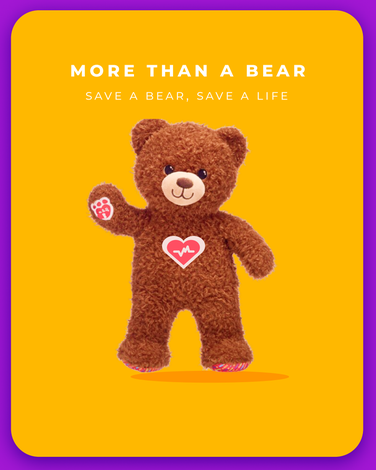
**Liam**
YorkU Kinesiology Major/ Football Instructor/ Resident Assistant

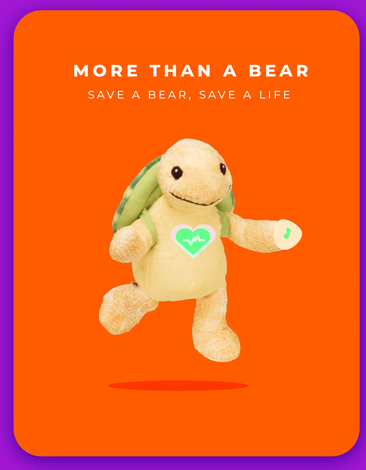
Focused lessons on fun and simple intructions

**ENGAGING BUT PRODUCTIVE**

## FINAL CONCEPT

A portable and responsive CPR bear that has compression and audio feedback. Perfect for remote learning and introducing children as young as 8 first aid procedures with minimum psychological impact.




## FEATURES

- BPM SONGS
- SIZE OF AN INFANT
- TRACKS COMPRESSIONS
- EASILY PORTABLE
- CONNECTS TO BLUETOOTH
- BRINGS AWARENESS TO
- CPR & FIRST AID PRACTICE

## APP CONNECTIVITY

The CPR bear connects via bluetooth to the 'SAVE-A-BEAR' app, that assists in CPR training through, guided learning, games and challenges.


## MOVING FORWARD

Through user research and the creation of Save-A-Bear, this device and research project has addressed the need for remote accessibility of mankinis and feedback devices and the ability for students can use it to measure their own progress in learning CPR. As a team, it was disclosed that children can be traumatized by the CPR experience, therefore, this practice is taught at an introductory level through the babysitting course (only learn how to perform CPR on a child/infant). This project has also brought to light the fear manikins can instill in children at this age, while providing an alternative solution to teaching CPR.