CIRCUIT STREAM

Circuit Stream

Game Design Document

# AR for Android - Feelings Thermometer for children with ADHD

by

Carmen Pena

Overview

ADHD stands for attention deficit hyperactivity disorder. It is a medical condition. A person with ADHD has differences in brain development and brain activity that affect attention, the ability to sit still, and self-control. Research shows that just identifying a calming activity can reduce anxiety. Being aware of children's feelings is the first step!

The Feelings Thermometer is a visual tool that helps children measure how they are doing emotionally and what steps they can take to shift their mood when things are getting tough.

Concept

Using Augmented Reality (AR) for Webcam a user (a child between ages of 6 to12 years old) can identify how they are feeling at the moment, by selecting an image of a feeling, view a list of feeling names and identify healthy behaviors such as counting to 10, think of a peaceful place, take fresh air and get a hug. Additionally, be able to listen to music and view videos to find mood stability.

AR - Feelings Thermometer for children with ADHD
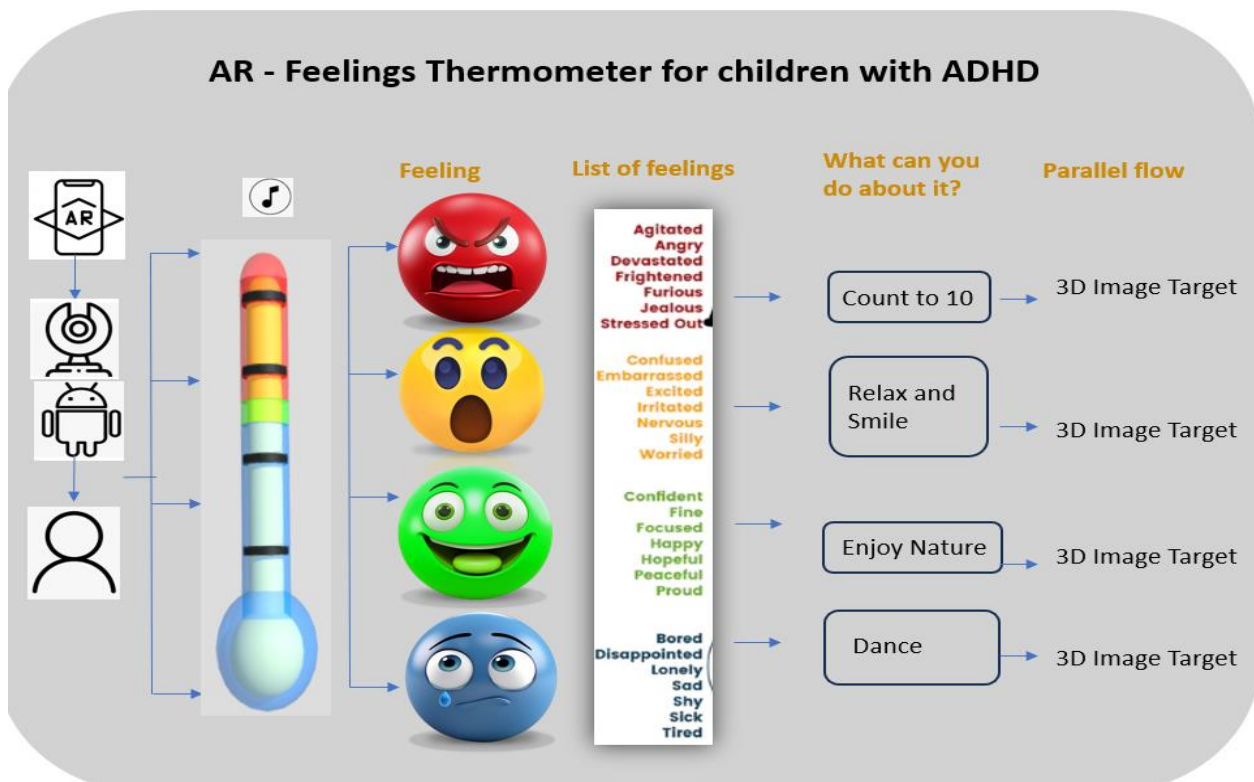
Target Audience and Platform

- User are children from age 6 to 12 years old
- The game is AR for Webcam

Project Scope

The project will be done from November 22nd to December 11th 2023, and it is a prototype to support the MVP for a basic iteration.

Gameplay

Objective

Allow children to use a Felling's Thermometer in AR to identify the feeling they are experiencing at the moment and allow them to find a calming activity that can help them to have mood stability.

UI support of the Objectives

Unity Editor supports the display of modern visuals in 3D and an intuitive user interaction with familiar images and steps to follow for children that will adopt the game.

User Workflow

1. User can launch the AR feelings thermometer prototype using the webcam
2. User can present an image target and the camera will calibrate the image to display the require 3D model
3. User can navigate between scenes based on the feeling's images presented
4. select the desired image feeling and a specific 3D model is displayed until a new image is selected

MVP

1. User Interface (UI): Develop an intuitive and user-friendly interface that allows children age 6 to 12 years old to easily navigate through the app and access its features.
2. AR Integration: Incorporate AR technology into the app to provide users with an enhanced and interactive experience. This includes features like object recognition, tracking, and overlaying digital content onto the real world.
3. Task Visualization: Provide visual representations of tasks and steps within the AR environment. This includes 3D models or animations.
4. Offline Functionality: Ensure that the app can work with Webcam

Assets

- Free 3D Thermometer model
- Feelings images in JPG format
- Vuforia Core Samples
- Sketchfab
- Presenter Media
- Vysor
- Pictarize
- Playlist

Functionalities used

- AR Foundation: To build the framework for the project in AR with Unity with the Android device
- AR Session: To set up the project and support UX and AR
- Multi-Target Image Tracking: respond to user iterations when selecting the feeling image.

- Audio Source: Adding components to prefabs in JPG format to allow more user iteration to help find mood stability
- Animations: Included for 3D models used in the app

Future Post MVP

Due to technical limitations with the Android Galaxy A71 the build from Unity did not work in this device. Several versions were downloaded and tested, but in the future, will be necessary to launch the prototype in different devices as Android or iPhone.