APP DESIGN

Project: Self-balancing App-controlled Robot

Abstract

This document includes design aspects and elements on the Android app for project SAR (Self-Balancing App-controlled Robot).

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Version management

Version	Description	Date
0.1	Setup + Introduction chapter	01-09-2017
0.2	Design chapter – Colors and UI kit	04-09-2017
0.3	Design chapter – Screens and Icon	08-09-2017
1.0	Finalizing	08-09-2017

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Introduction

App

This app is going to control the robot. The user will be able to make the robot do things, e.g. move forward or go left. If there is time leftover, the app will also be used as a way of displaying various parameters of the robot.

Features

The following features only apply to the UI. For more features see also Requirements document.

Must:

- The app must display movement control buttons (forward, backward, left and right)
    - In the design, this is displayed as an onscreen joystick.
- The app displays the current state of the connection with the robot

Should:

- The app displays the state of the robot (e.g. battery level)

Could:

- The app has a way for the user to be able to select a control mode (joystick, tilt or speech)
- The app displays a variable speed option (when control mode is in joystick mode)
    - It has been decided that this is incorporated in the onscreen joystick
- The app displays tilt direction (when in tilt mode)

Audience

This project is being made for the course Special Topic at Otago Polytechnic IT school. Therefor this app will be targeted at IT students (and teachers). This means they could understand the working of an app faster than the average person. Also, this increases the chance they have Android phones higher then Android 4.4 KitKat.

Experience

This app will be basic, and will not focus on the GUI. The project is mostly about the robot, not the app.

Design

Colors

Figure 1 - Color selection

Color codes (same order as figure 1):

	Color 1	Color 2	Color 3	Color 4	Color 5
Hex	FFFFFF	757686	282828	34D1E5	5200BA
RGB	255 255 255	117 118 134	40 40 40	52 209 229	82 0 186

UI Kit

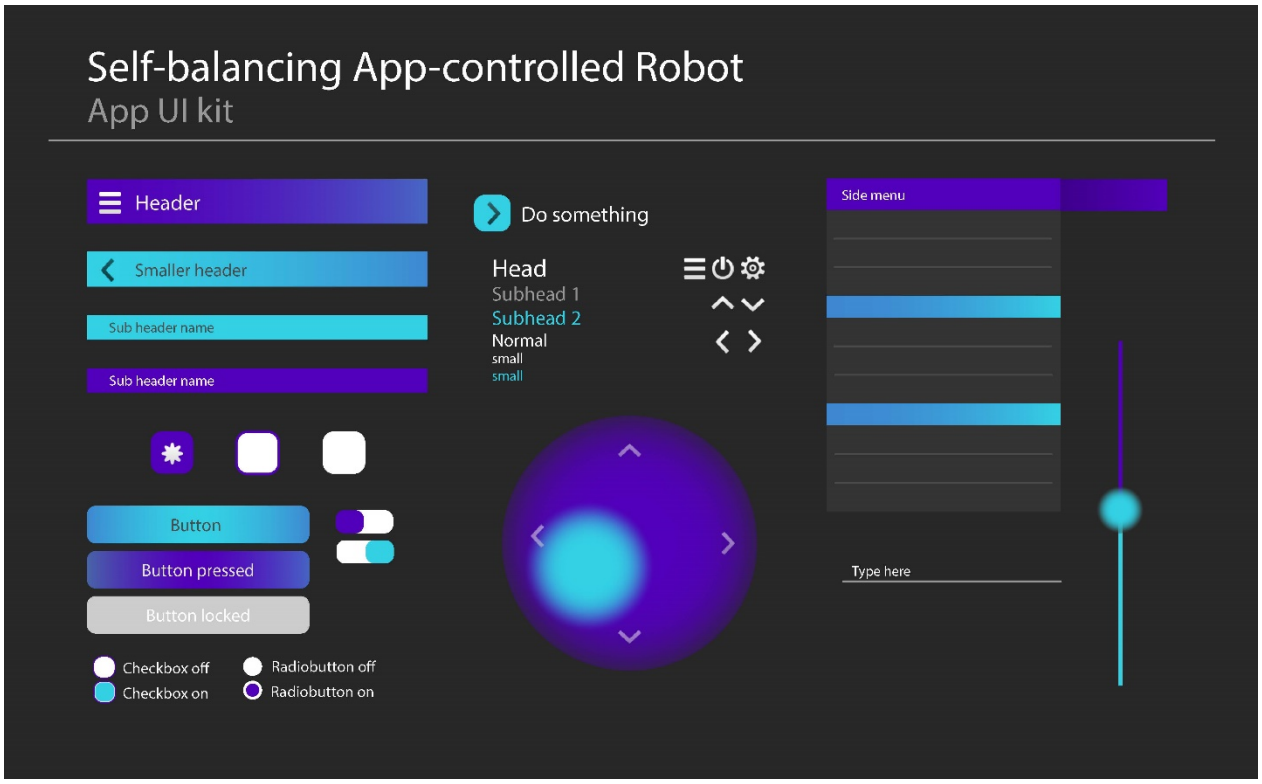

Figure 2 - UI kit

Screens

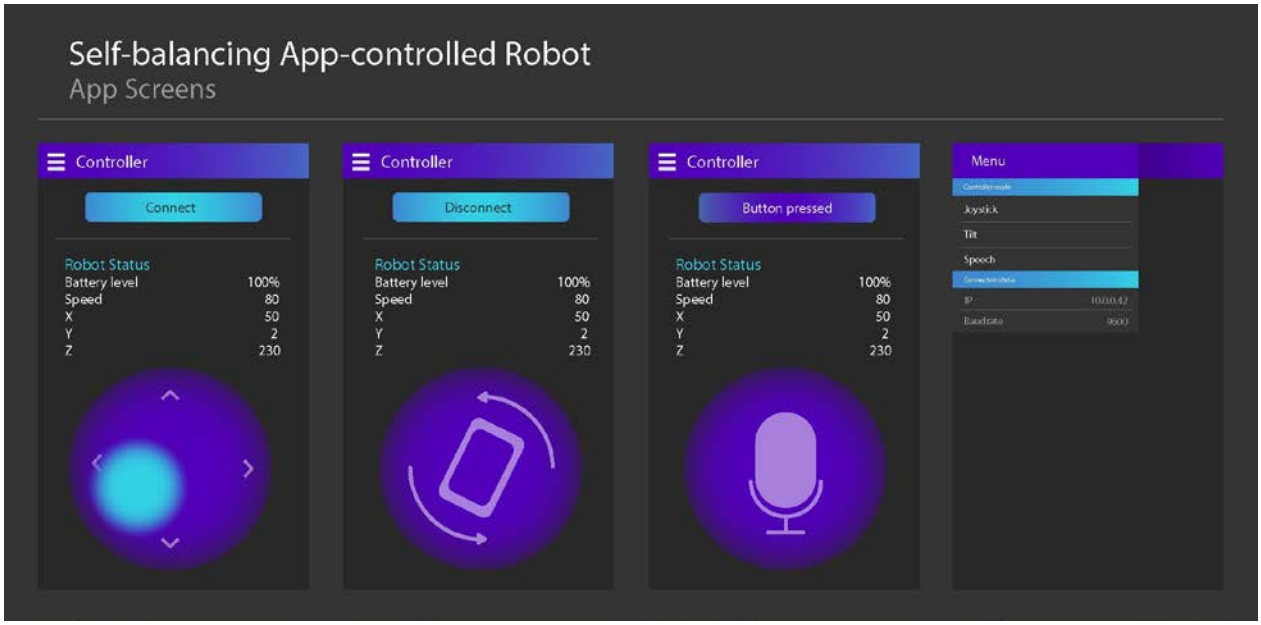

Figure 3 - Screen designs

Icon

Figure 4 - App icon

References

[1] Kuler. (n.d.). Retrieved from Adobe: https://color.adobe.com/create/color-wheel/?base=2&rule=Custom&selected=4&name=My%20Color%20Theme&mode=rgb&rgbvalues=1,1,1,0.4588235294117647,0.4627450980392157,0.5254901960784314,0.1570970009209652,0.1573659524317946,0.1568627450980392,0.2039215686274509