Project Plan

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Jan		February				March				April					May				June	
4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
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Writing Demonstrate Prototype																				
Perform User Evaluation																				
Writing Evaluation																				
Writing Conclusion																				
Finalizing Thesis																				
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Explicate Problem

In this phase the research will meet with his supervisors and expert orienteers to gain an understanding of the sport and the research problem.

Literature Review

The researcher will look at Literature to evaluate existing research concerning design science, real-time feedback in general and orienteering. He will also look at existing tools that are used for practicing orienteering.

Writing Introduction

In this phase the researcher will formulate a short background, the research problem and aim as well as the research questions.

Developing First Prototype

The researcher will develop a first prototype for iOS. It will include three modular real-time feedback methods. Visual Feedback will be provided by presenting the amount of meters the orienteer drifted from the optimal path between checkpoints.
Sound will be used to convey the drift without forcing the orienteer to look at the phone.
The third feedback method will let the phone vibrate with a frequency that rises the further the orienteer is away from the optimal path.
The input will happen by manually entering the coordinates of the checkpoints or dropping pins on a map provided by the MapKit framework.

Testing First Prototype

A quick first test will be conducted using only few orienteers to iron out the biggest wrinkles in the prototype and improve the quality of the prototype before a bigger user

evaluation. This can be done informally by getting the opinions of a few experienced orienteers and testing it during a training session.

Writing Methodology

The researcher will specify which methodology he used and why he chose certain research methods.

Writing Extended Background

The extended background will cover the HCI area of bodily forms of interaction, sensors, exisiting solutions for real-time feedback with sports applications and the usage of GPS.

Writing Development

This chapter will describe the architectural workings of the prototype as well as decisions concerning the design of the user interface and feedback methods. It will also feature iterations and improvements of those methods and interfaces gained through quick testing the prototype with orienteers.

Refining Prototype

The researcher will refine the prototype

Writing Demonstrate Protoype

The refined prototype will be applied to a use-case to demonstrate its viability. The use case will be a checkpoint run through unfamiliar and difficult terrain and a description of how the real-time feedback assisted the orienteer during this run.

Perform User Evaluation

A bigger evaluation with more than a few orienteers will be set up to test the effectiveness of the prototype at solving the explicated problem. It will be hard too measure an improvement in navigation skill quantitatively since the timeframe of the research is too short to observe orienteers over a longer training period, but qualitative assessments from orienteers and trainers can be collected.

Writing Evaluation

The data obtained in the previous phased will be assessed to gain an understanding of the effectiveness of the single feedback methods and possibly discover interesting characteristics and advantages/disadvantages of them.

Writing Conclusion

The last chapter will summarize the findings of the thesis.

Finalizing Thesis

This phase gives the researcher the opportunity to refine parts of the thesis. If time allows, the prototype could be refined a second time and evaluated again. This process would then be included in the relevant chapters.

Presentation

The researcher will prepare the opposition of the thesis.