

## Product Development of Adaptable Mobile Holder

*The constant changing and developing mobile phone industry allows people to everyday use new technologies. Today, it has become as simple as downloading an application on the phone to measure movements to help prevent asymmetrical gait patterns and get tips of how to improve one's running technique. The only thing needed for this to work is a carrier for the mobile phone.*

The purpose of the master's project is to design a carrier for the company Medotemic AB. Medotemic AB is an e-health company that combines care visits with objective movement monitoring at a distance. To be able to do this they are collecting sensor data with the help from the mobile phone. Best results are gained when the phone is centered on the back in waist height on the user. Due to the wide range of phones on the market it is essential that it is adaptable to different types and sizes. The purpose of the carrier is to develop a product for Medotemic's customers and allow Medotemic to complete necessary tests so that they can develop their application further.

The purpose of this measurements is to assist patients and their caregivers ~~in~~ with their rehabilitation process but also give those who like the opportunity to improve their running technique. The two customer groups that the product is aimed to help is rehabilitation patients and runners. Through a user-centered approach, by conducting interviews and sending out forms, needs and criteria for the carrier were established.

The process resulted in a carrier created as a waist bag with an elastic band adjustable to different waist



sizes. It is adaptable to different phone sizes by its C-shaped pocket. During the process, it became clear that no advanced technique was necessary to use for the carrier to be adaptable to different phone sizes. This could be solved by only changing the shape of the pocket, to allow the phone to be stably and simply placed. By utilizing an elastic fabric, the pocket can expand to the size matching the user's mobile phone, regardless of if it is large or small. The C-shaped pocket also makes the placement of the phone easier, especially for the older users, by allowing the opening of the pockets to remain large, it is easy to place it and push it in to the center of the pocket. By keeping the pocket open it becomes effortless to reach the phone for a quick use.

The purpose of the master thesis is considered to be fulfilled. All the needs that were established early in the process are met. With its simple design and low use of components the manufacturing cost of the bag will be pushed down. The design is unique and has the properties useful for a broad range of customers which is necessary if it is to be useful for both the customer groups. With its tight character and neutral coloring, the waist bag is not too eye-catching which increases the likelihood of use among people who are pickier in that area.