

# Designing a system for household waste management in apartments

*K. M. Lorenzen<sup>1</sup> and M. B. Pedersen<sup>1</sup>*

<sup>1</sup>DTU Design and Innovation, Technical University of Denmark

## INTRODUCTION

The initial initiative for getting this project done was taken by Mia Makne from Miljøpunkt Nørrebro (an interest organization involved in i.a. waste management) and Søsler Brodersen from DTU. It was created in a special course from February to May 2012 at DTU in collaboration with Miljøpunkt Nørrebro with the supervisors Søsler Brodersen and Rikke Premer Petersen.

## THE PROBLEM

The Copenhagen municipality has a goal of increasing the household trash separation in the city, because it is the easiest way to collect the recyclable materials disposed of in all apartments every day. The problem is that many citizens have rejected the idea with an argument of not having enough space for several different trash containers in their tiny apartments. This project strives to find an aesthetic, flexible solution to managing the separation of trash that will fit in most apartments.

## METHODS

The work on this project can be divided into three phases, them being: fieldwork and analysis, brainstorm and conceptualization, and detailing. The goal was to create something extremely user-friendly which is why a group of users were involved through out the process. Through interviews they were questioned about patterns of practice and during brainstorms on solutions, conceptualization and detailing of the final product they were asked to participate, comment on and discuss the ideas during individual sessions and as a collected group in a workshop.

## RESULTS

The result of the project has been the concept Clip-On. It is a product that can store several different fractions of trash in the same spot, where there is usually only one, in the cupboard under the sink in the kitchen. The opening of the cupboard is transformed to a pull-out function and on the rails for the door are placed clips that has a frame for stretching out ordinary plastic bags. On top of the plastic bag on the frame can be placed a magnetic sign for communicating which fraction goes where.

## CONCLUSION

Clip-On is a very real and applicable solution for waste management in small apartments. It allows the user to dispose of but separate all of his/her fractions of trash in only one spot usually used for that same thing. It is flexible in size, quick and easy to use, the content is easily transported from the kitchen to the courtyard and is hidden when not in use. We believe this product would help motivate more people to separate their waste, because it brings a functionality and aesthetic to household waste management not previously seen.