

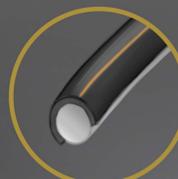


## STARTING POINT

Our starting point for this project is Crohn's disease, a chronic intestinal disease in which the mucous membranes in the intestines inflame. A probe is often recommended as a treatment but unfortunately wearing a probe is still often a taboo. When a person has a probe, he or she is immediately considered gravely ill. In public places patients are often stared at and most people will not dare to address a person who carries a probe. This behavior often makes patients feel bad and insecure while carrying their probe.

In order to give the patients more self-confidence we came up with a product that distracts attention from the probe itself. We chose to design a product that stands out and which is looked at by other people in a positive way. When they will see the product, they will not associate it with a probe, but more likely with a headset. Because of this advantage, users will no longer be looked at strangely and will dare to use their probe more confidently in public places.

## CLICKING SYSTEM



## ON/OFF BUTTON



## MICRO USB



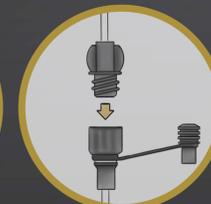
## PRODUCT LINE

The Mana product line consists of three different products. On the one hand the two types of headsets and on the other hand a matching backpack. The headset has two bluetooth ears which work through bone conduction. The earplugs should not be inserted into the ears but rest on the cheekbones. Vibrations allow the user to perceive music without having anything in the ears. This ensures that the headset can be worn all day long without causing pain in the ears. The female headset has been designed in such a way that the connection of the two earphones on the head is created by means of a kind of diadem. For the male version of the headset this happens at the back of the head. However, the two different models are free to be used by both men and women.

## USAGE SCENARIO



1. The user plugs the power supply and pump into the backpack.



2. The tube of the food supply is attached to the probe.



3. The user puts the headset on and attaches the probe to it.



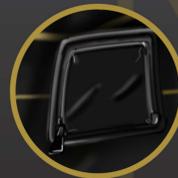
4. The user turns on the music by pressing the button.

## TECHNICAL DETAILS

The headset is made of Polypropylene which is a very light material that is resistant to bacteria and yet very strong. These characteristics are important factors for our design. The parts in contact with the face are provided with a softer material. The probe can easily be inserted into the tube and is guided behind the ear. The earplugs can be (des)activated by using the on and off button which is provided on the left earpiece. The battery has a capacity to last for 6 hours, after which it has to be recharged using the micro usb switch. The headset works via bluetooth and is water resistant.

The accompanying backpack consist of different materials. The upper part of the backpack is made of PU-coated 840-denier nylon, a very flexible material that is strong and durable. Because of the polyurethane coating the material also has a low water permeability. The lower part of the backpack is made of polyurethane which has a good scratch resistance. Next to that it is also quite hard and thus will protect the pump against damage.

## SIDE POCKET TO STORE THINGS



## WATERPROOF ZIPPER



## TRANSPARENT PART FOR READING OF THE PUMP



## USE OF ZIPPERS SO THAT THE BACKPACK CAN ALSO BE CARRIED WITH 1 SHOULDER STRAP

