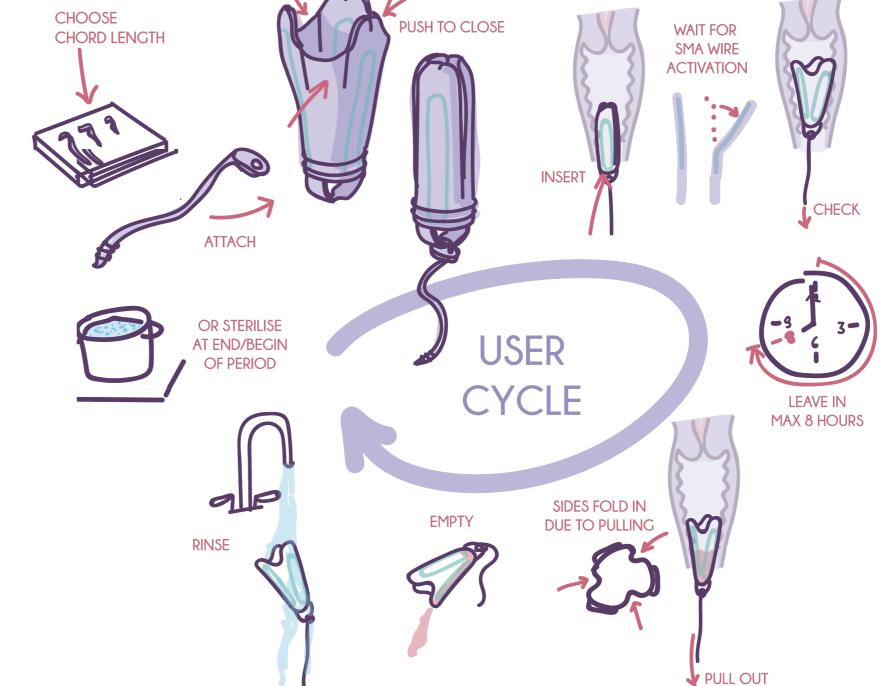
The Benony Opening in the top parts to open up together with the rest. Otherwise it will be restricted and hang over. Only three petal parts to keep it Thickness of the silicone easy to fold the parts back in. parts with SMA is 2mm. A reusable, blood collecting, deployable menstrual Thickness of the product similar in shape and size as a tampon silicone parts without SMA, that are folded, is 1mm. The 1mm parts also help to THE PRODUCT give room to fold back in a bit when extracting. This makes The Beppy Clover is a new menstrual product extracting easier. for Beppy and designed to be a reusable, blood collecting product, and with a similar shape and size as a tampon. The undeployed design Length and shape are SMA wire (0.5mm and A_f is is made to be perceived as less intimidating to body temperature) is loop similar to a single use insert and extract than the cup. Furthermore, shaped and programmed tampon. the cup deploys with the help of SMA wire once to bend, this way the three inserted into the vagina. At last, the user is petals will deploy. given the choice to add an extraction cord for easier retrieval of the Clover. THE NAME CLOVER The name is chosen because of its Capacity is one tablespoon (12mm). physical appearance, having three sections. Therefore, it is similar to a clover having three petals. Furthermore it is a link to nature which can show its reusability. Clover is easy to say and has a positive association to it which will help to think of the product less intimidating. Ribs added for more grip. Loop added to the bottom, to extract with one finger. The indents are made to attach the extraction cord. **MECHANISM** Shape Memory Alloy wire of 0.5mm diameter is embedded in the three thicker sections of the product. These are shaped in vertical loops and are programmed to bend and therefore open the product. The wire has an activation temperature of body temperature. This means once the product is inserted into the vagina canal the product will deploy due to the warmth of the vagina and the blood. The deployed form will then collect blood. **CHOOSE** PUSH TO CLOSE WAIT FOR CHORD LENGTH **SMA WIRE ACTIVATION** d = 16mm

DIMENSIONS

Dimensions are carefully thought out by researching the dimensions of current products like tampons and cups, but also other insertable products like dilators. The goal was to have dimensions similar enough to a tampon but great enough to have capacity similar to a menstrual cup.



Vinciane Van den Dwey

Designing a shape morphing, reusable, bloodcollecting hollow tampon with shape memory wire

___ d = 30mm ___

26-08-2022

Integrated Product Design

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