



## photos of the process



Meeting with our client at Auping's headquarters in Deventer and visiting their production facility.



Research suggests that the number one reason why people have trouble sleeping is because the temperature in bed does not suit their preferences. Research also suggests that the body temperature varies during the night. To accommodate for this temperature shift the microclimate under the blankets should change as well.

To combat the temperature shifts during the night, a drill (mattress covering) with a variable insulation value would be beneficial. This influences the rate at which the heat of the body gets conducted. In this research methods to create a drill with a variable insulation value are explored. To place these exploratory methods in perspective, the existing drills of Auping are measured as well. In this way, the drills can be compared to each other.

In this booklet we show the process of our project in images and text.



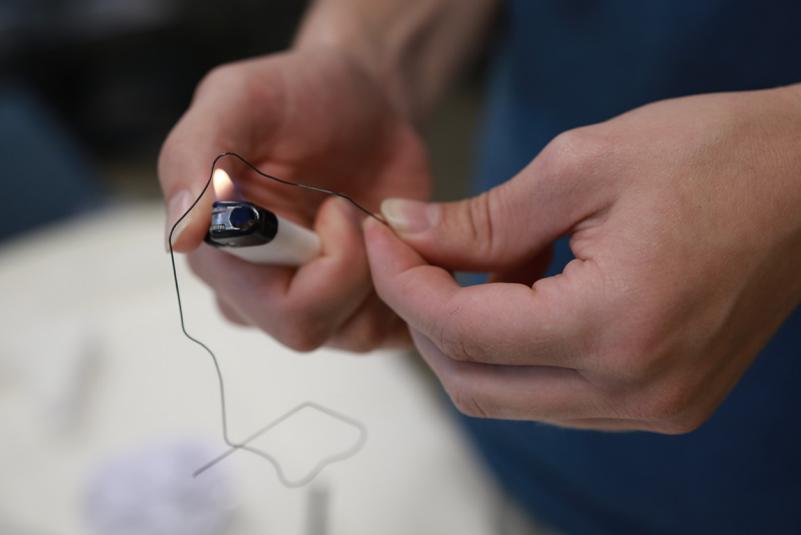
A tour in the production facility gave us an insight in how exactly mattresses and tickings are made.





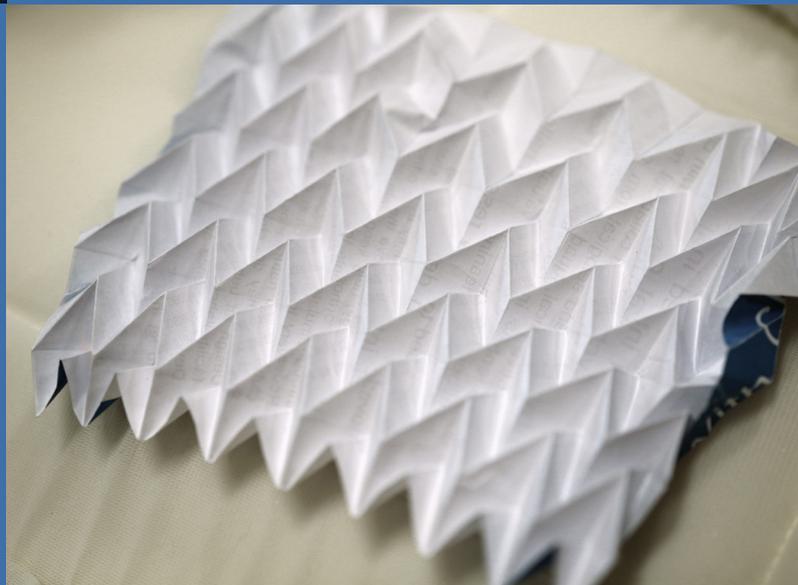
All the different fabrics used for the tickings of Auping.

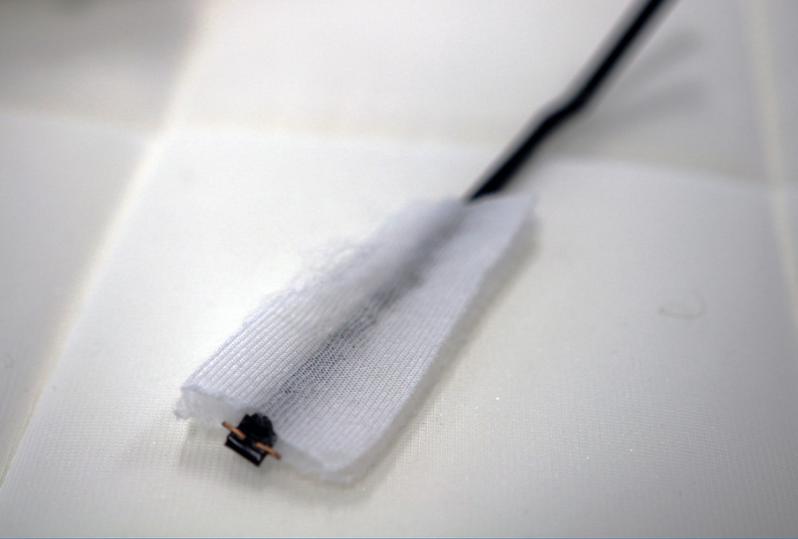
Our client explains how a ticking is build up and uses the 'Vivo' as an example.



Testing out the possibilities of nitinol. This wire goes back to a predefined shape when it is heated up.

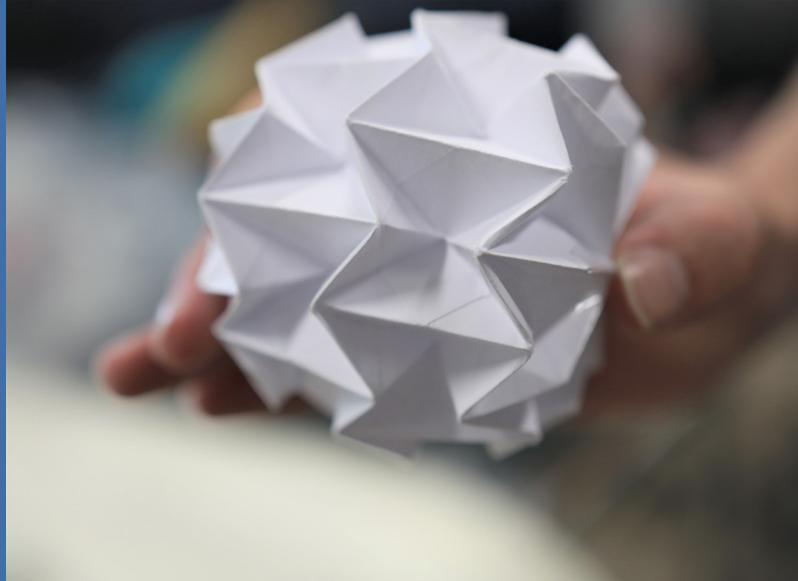
A herringbone origami pattern can be used for a variable structure.





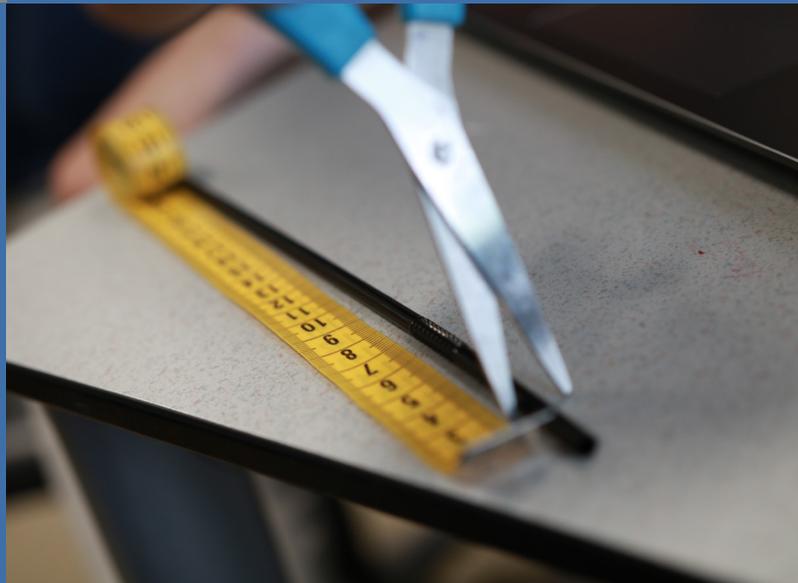
Exploring the possibilities of a ventilation tube in a layer of the 'Breeze'.

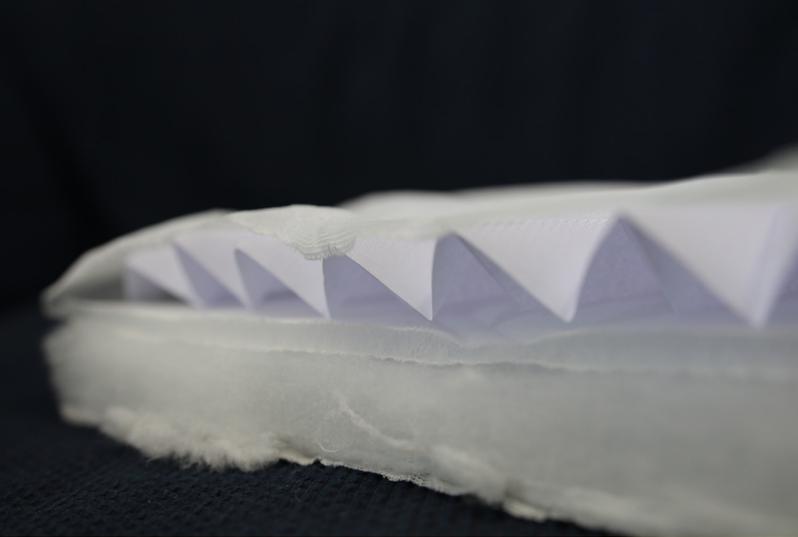
We experimented with different types of origami patterns.



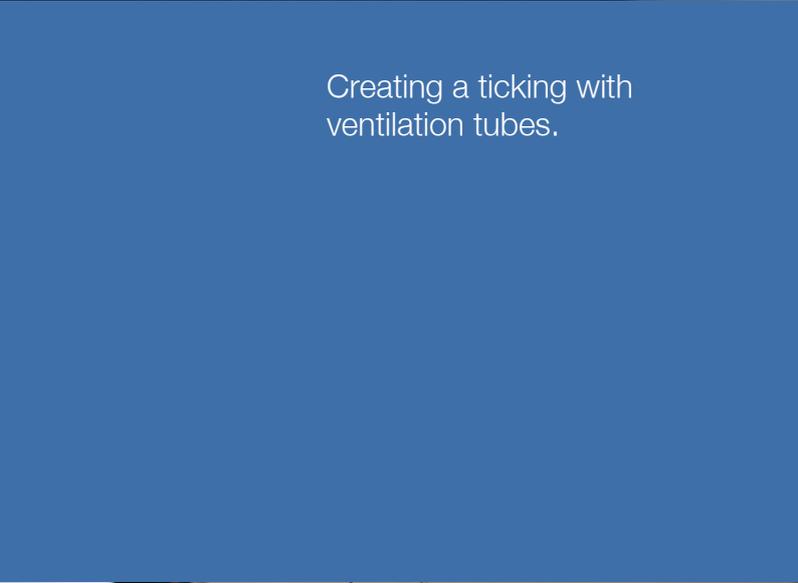
The work- and experiment table, to let our creativity flow.

Making exact cuts in the ventilation tubes to get a consistent hole pattern.





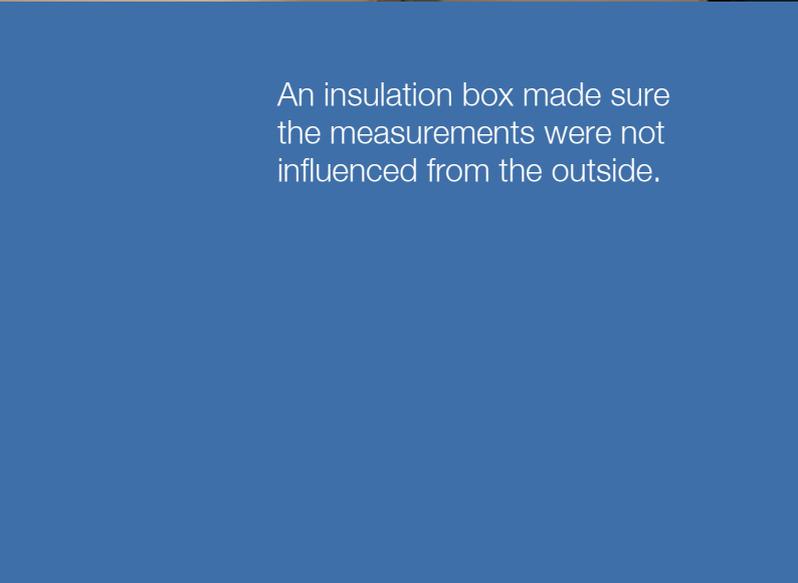
A layer of a herringbone origami pattern implemented in a ticking.



Creating a ticking with ventilation tubes.



The oven we used. The tube was an extension of the oven space to connect our measurement setup easily.



An insulation box made sure the measurements were not influenced from the outside.





A ticking with ventilation tubes implemented.

A 'Vivo' ticking with structure changing threads made in it.



The part of the measurement setup in which the ticking can be held steadily.

The ticking connected to the measurement setup with the sensors connected as well.



Experiments and explorations  
with ventilation holes in paper.

