



CAROTID

THERMO-REGULATOR

The human cervical region has been celebrated in one way or another by historical and contemporary fashion trends alike. Either through concealment or elaborate exposure, tailored garments and accessories like the "Ruff" or "turtleneck" have been used since the 16th century. While some versions of the



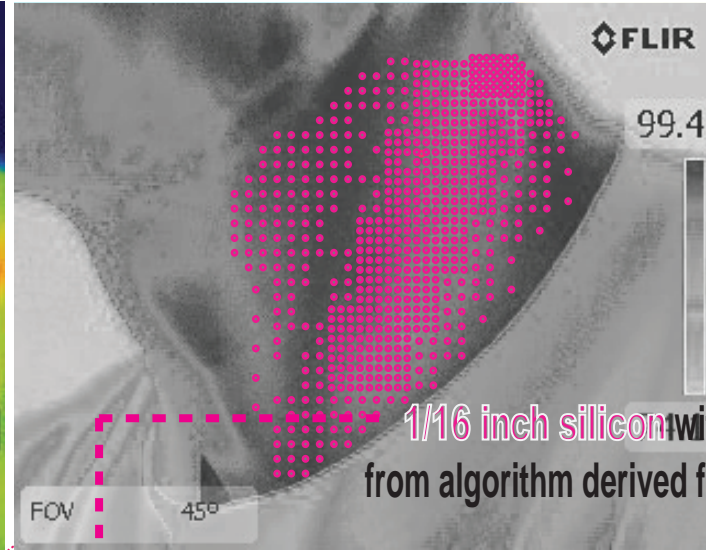
Panting in summer heat

former denoted an aristocratic provenance, the latter has been associated with certain radicals, academics, philosophers, intellectuals and politicians. **This project aims to re-imagine this area of the body through a prosthesis which extends aesthetic preoccupation to consider thermal comfort scenarios and their visual expression.** Our premise stems from the traditional Ruff, which

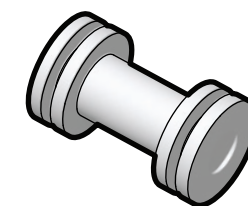
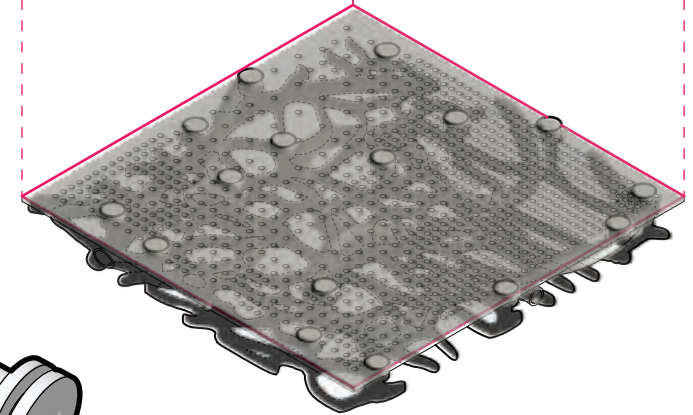
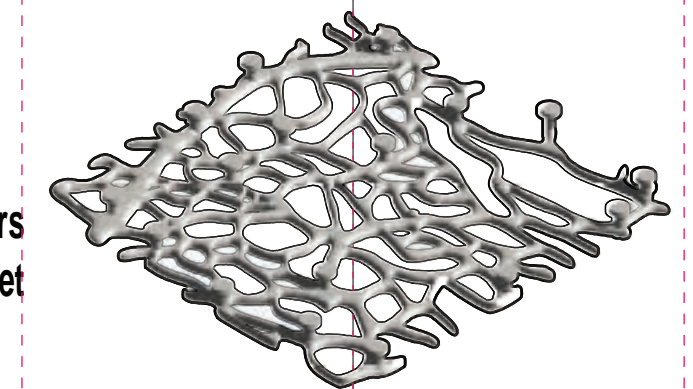
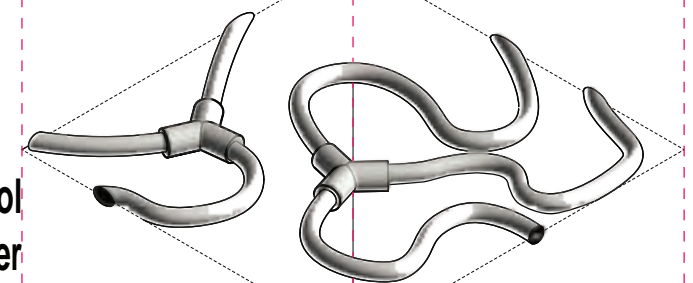
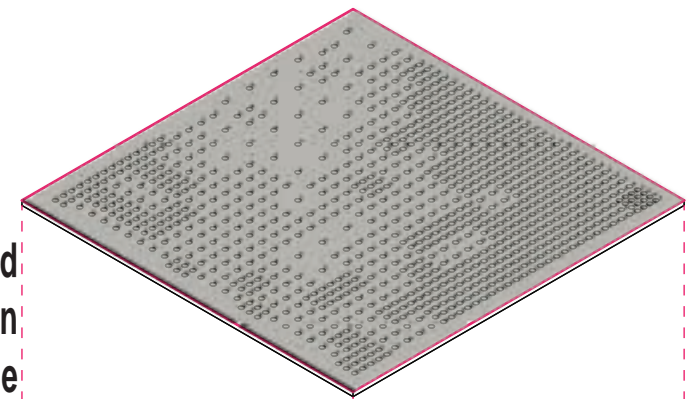


Ruff day at the office

evolved from a small neck piece to high ruff or collars during the Elizabethan era. Throughout history, ruffs have been shrunk or enlarged transforming into cuff and skirt through multiple evolutions, even incorporating wooden support in some of its iterations (Hughes 2011).

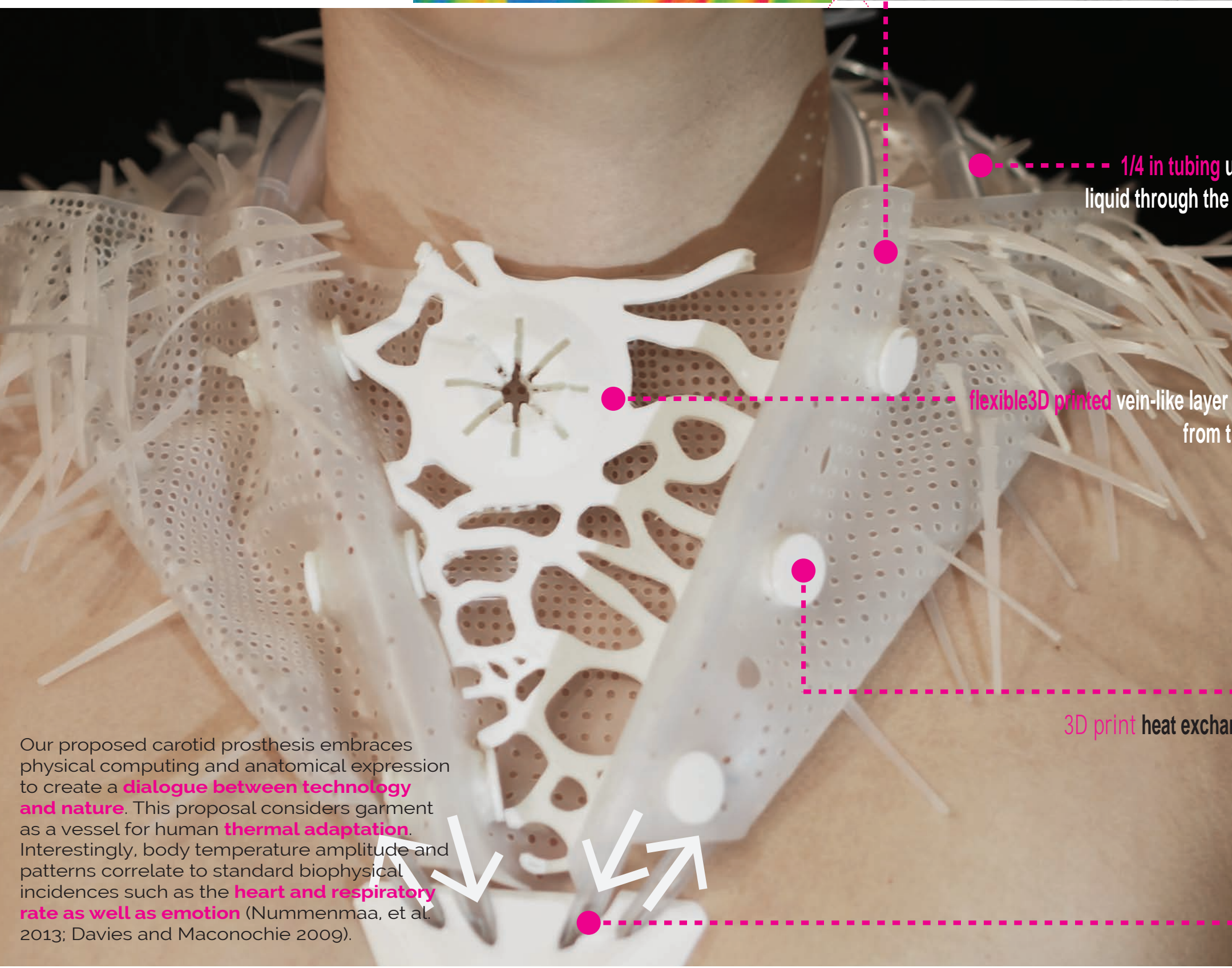
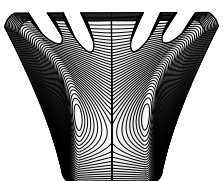


1/16 inch silicon with pattern extracted from algorithm derived from pixel values on thermal image



3D print heat exchanger

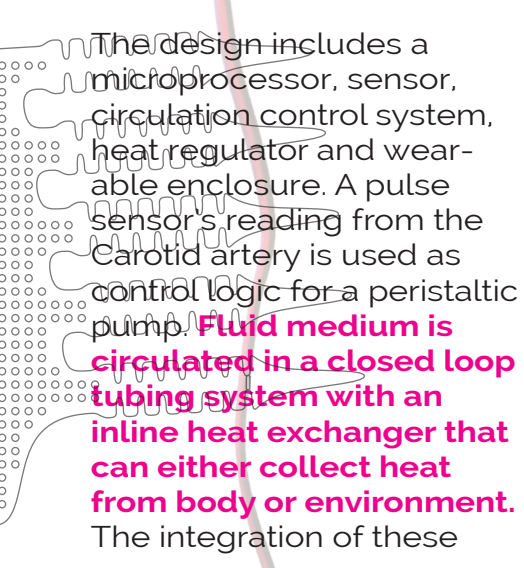
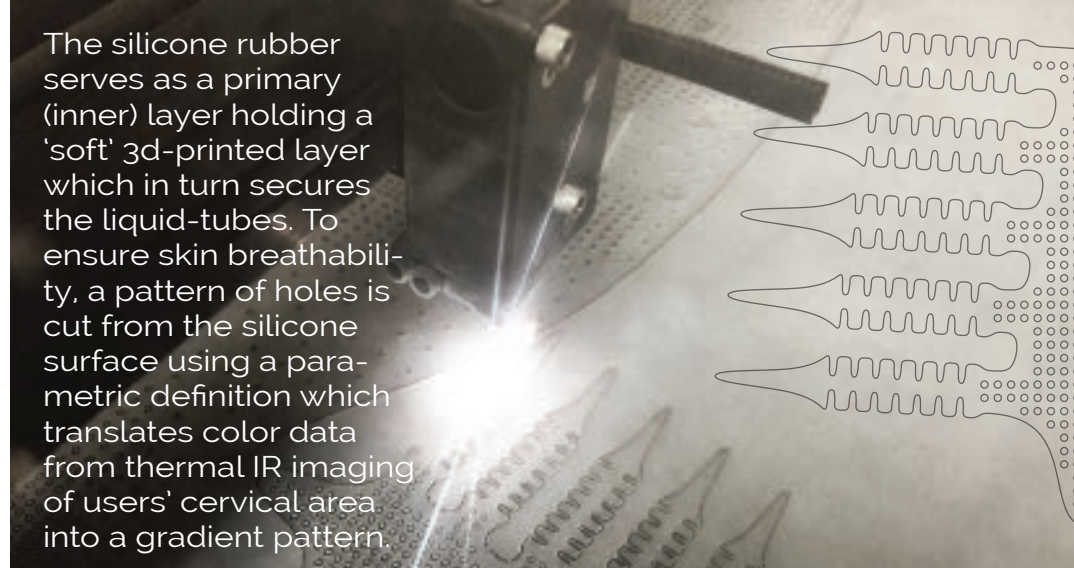
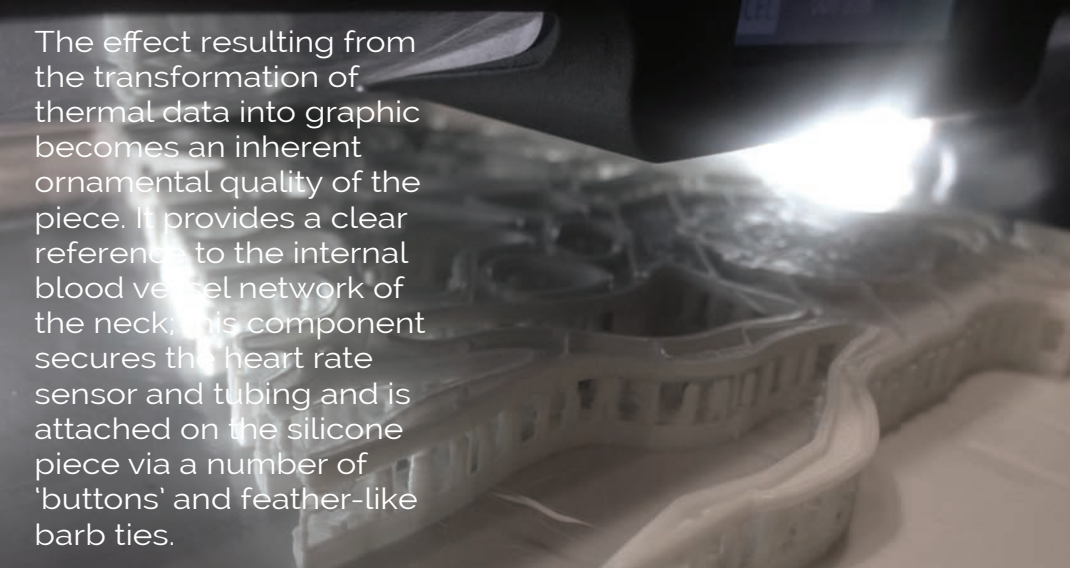
3D print encasing



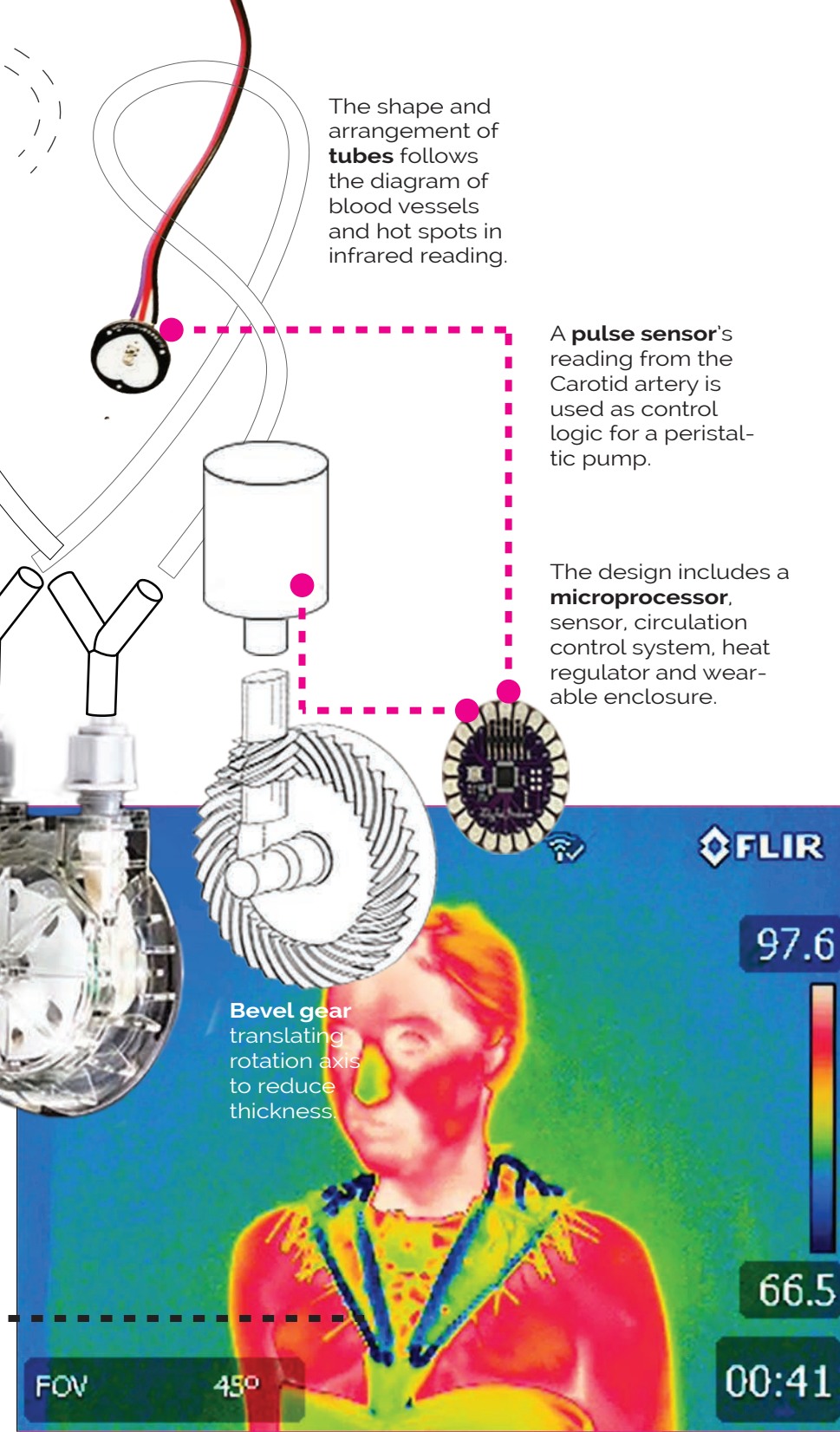
1/4 in tubing used to transfer cool liquid through the folding silicon layer

flexible 3D printed vein-like layer to support all layers from the top of the garment

Our proposed carotid prosthesis embraces physical computing and anatomical expression to create a **dialogue between technology and nature**. This proposal considers garment as a vessel for human **thermal adaptation**. Interestingly, body temperature amplitude and patterns correlate to standard biophysical incidences such as the **heart and respiratory rate as well as emotion** (Nummenmaa, et al. 2013; Davies and Maconochie 2009).



components within a wearable item carefully considers minimum weight and non-disruptive presence on the user. Soft materials like silicone rubber and flexible resin are employed, combining laser-cut and 3d-printed pieces to achieve geometrical complexity.



References

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