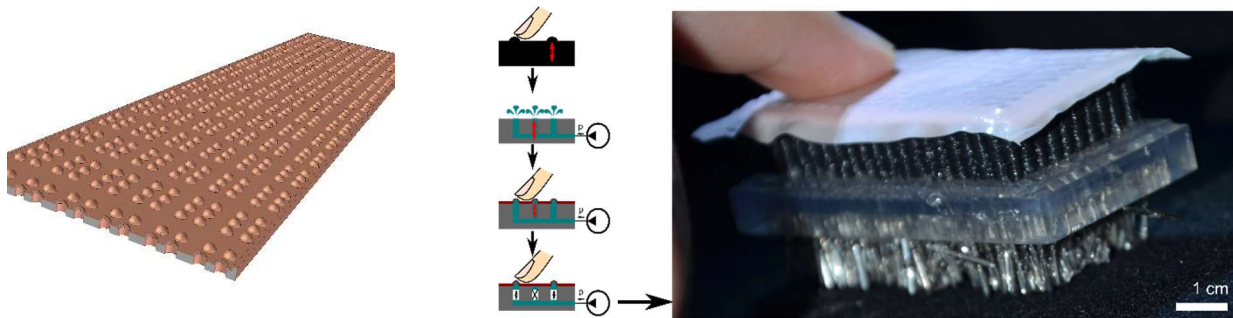


Thesis Bachelor(/Master)

Development of an apparatus for filling of microfluidic channels for Braille display

According to OECD, there are more than 250 million people in the world, that are visually impaired. Graphical information, like text, pictures or maps, is only accessible for them, when it is prior put into tactile graphics like Braille. For instance, it is possible to convert street maps into tactile lines of contour. But in contrast to the easy access to digital graphic information for seeing people, it is a very costly and unpractical obstruction for visually impaired, even in developed countries. A novel type of tactile display is urgently needed, as affordable and practical in the handling as possible. Therefore we are using a microfluidic approach, where there is a microchannel and actuator behind every tactile pixel (taxel).



In this work, the student will develop an apparatus for filling microfluidic channels with working fluid. The goal is a process executing its task clean, exact, and fast. Therefore, using research in literature and the on-site circumstances in the laboratory, the best approach to this task will be found and transferred into the construction of the apparatus.

This thesis is an excellent opportunity gathering practical experience in a lab in excellent research environment. This is especially a good task for bachelor's students.

Interested engineering students with interest in practical work are very welcome. For further information, questions, or applications (CV + certificates + letter of motivation), please do not hesitate to contact me directly:

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