Heidelberg Instruments is the leading supplier for maskless laser lithography systems with an installation base of more than 600 systems in over 40 countries. These tools are used for direct writing and photomask production by some of the most prestigious universities and industry leaders in the areas of MEMS, BioMEMS, Nano Technology, ASICS, TFT, Plasma Displays, Micro-optics, and many other related applications.

The maskless technology offers high flexibility and improves the turnaround time in research and product development. A direct writing tool will eliminate the lead time for photomasks and allows researchers to implement changes in their devices without delay. The systems are able to expose all the standard optical photoresists, while offering some technological advantages when compared to a mask aligner. In addition to writing high resolution 2D patterns with structure dimensions down to 500 nm, it is also possible to create complex 3D structures in thick photoresist.