Institut für Textiltechnik und Lehrstuhl für Textilmaschinenbau

RWTH AACHEN UNIVERSITY

Project title:	InfiniCut
Partner:	ROBUSO-Stahlwarenfabrik Buntenbach & Sohn GmbH MILtronik Steuer- und Leistungselektronik GmbH & Co.KG
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Mission Statement

The aim of the InfiniCut project is to shorten service times and optimize utilization of tool life for the end user of cutting tools. This should result in a cost reduction during the production process.

To achieve this goal, a compact and highly robust step counter is to be developed that is wirelessly and permanently mounted in the cutting tool. It will also have a wireless data interface and an integrated energy storage device. The step counter is used to reliably predict the wear point after a certain number of cuts of the glass, carbon or aramid shears. This requires a model that approximates the number of possible cuts of each shear. To build the model, the course of cutting force, wear and textile cut quality must be related to the cutting length performed. Finally, a service concept will be developed, with which an objective and intelligent exchange of cutting tools can be realized for the first time. This should lead to a higher efficiency of the entire production process.

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