construction site 4.0 - Excavators get autonomous

Linear measurement systems by TR-Electronic supports innovative project

A team of pupils from Vorarlberg undertook nothing less than a fundamental innovation in the construction industry when they started automating an excavator as part of an "innovative week" project in their final year. The project turned into a diploma thesis, the team has grown and the idea of three students turned into a sensational innovation in the construction industry. The young innovators are now working on marketing their development under the name Sodex.
According to the team, Sodex - the software-driven excavator - will revolutionize the construction industry. The system of hardware and software can be attached to commercially available excavators. The excavator digs excavation pits independently with Sodex - it only needs a machine operator to determine the dimensions of the pit to be excavated at the beginning of the work. The machine does the rest itself.
TR-Electronic was able to support this innovative development with linear position sensors in the profile housing of the LMP series - attached to the existing cylinders of the arm joints, they provide reliable information about the extension length and thus the necessary data for calculating the position of the excavator shovel. The profile housing variant with a guided slide offers many advantages, especially when it comes to retrofitting Sodex to existing construction machines. For OEM equipment, it is also conceivable to integrate the sensors with the same resolution and interface directly into the hydraulic cylinder. Fewer attachment parts and the smaller overall installation space make the solution even more robust.
TR-Electronic wishes the Sodex team continued success with this innovation on the way to a recognized solution!
www.tr-electronic.de

Video: https://youtu.be/RI0qo9r5kaU
Our products: https://www.tr-electronic.com/s/S022929

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Team Sodex with Prototype of a „Software-Driven Excavator“

The „Software-Driven Excavator“ at work.