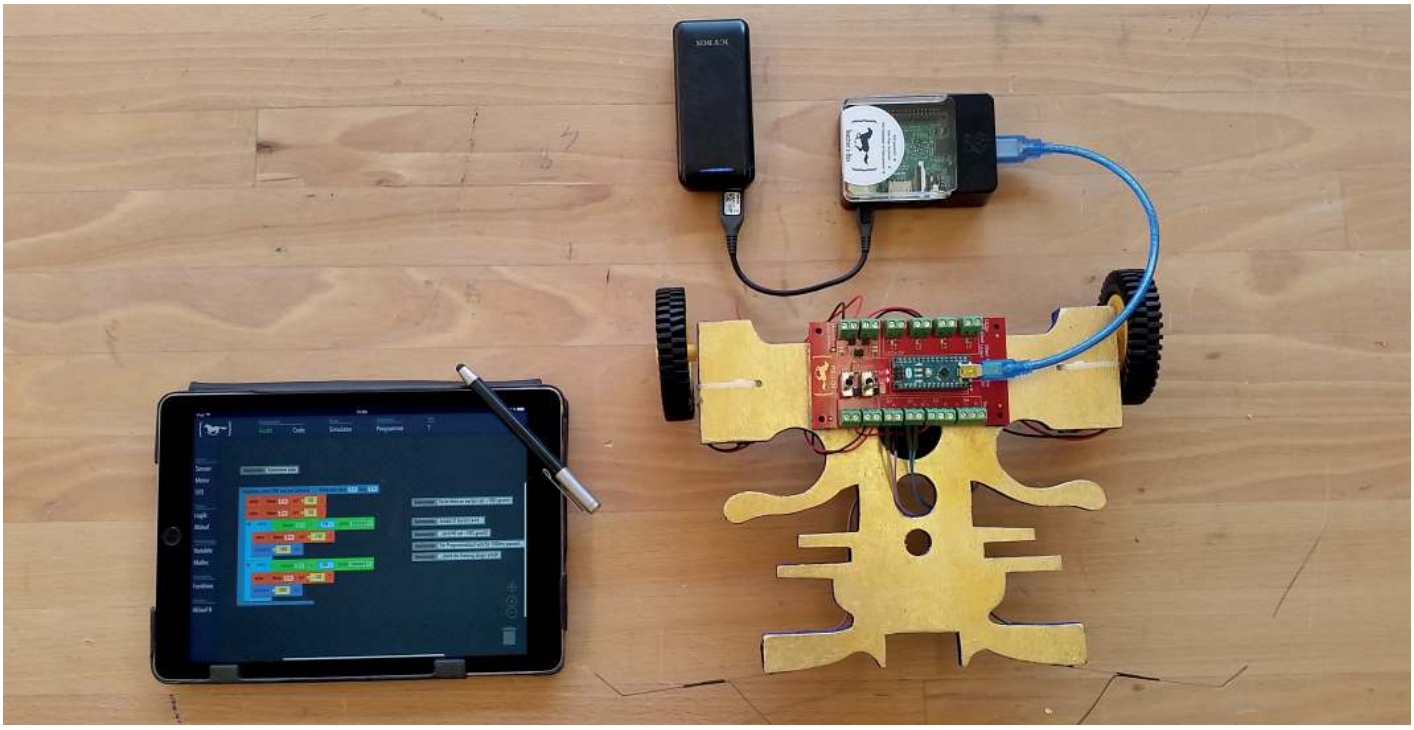
SUCCESS STORY:
IFTEST goes to school with PGLU

Technology and learning. Boring, you say? Not with Rolf Beck. The secondary school craft and technology teacher in Baden and, to use his own words, expert in transforming digital concepts into reality has launched a youth development initiative together with PGLU.CH that focuses on technology and design in schools. Together with Iftest and other supporting partners, PGLU has completed the first set of examinations.

PGLU (Processor-Controlled Learning Environment) is a pilot project by the Technical Design Group of the Aargau Teachers' Federation. At the heart of the PGLU is a simple, robust and versatile circuit board. This is augmented by the PGLU's Teacher Box and an app which can be used to program the circuit board using a visual language similar to the popular 'Scratch' program. This enables teachers to pass on their design and technology skills to their students th-rough entirely practical and transparent projects that the students can complete for themselves. Examples include a laser show that captivates its viewers, and a self-driving car which is quick to orient itself.

As a practical and above all teachable concept, this innovative development can be used in any teaching environment. It is no wonder, then, that PGLU has already been successfully tested in many schools in Switzerland. Training for teachers and students is easy thanks to the training materials already developed based on everyday teaching practices. A targeted marketing campaign in schools and the education sector and is underway and has already generated a great deal of interest across Switzerland.

The idea for PGLU came to Rolf Beck in 2014 when he wanted to develop some simple robots with his class. The circuit board which he etched himself was the starting point for the project. Together with the High-tech Zentrum in Aargau and the University of Applied



The PGLU board with corresponding App enables the realization of a technical project at school.

Sciences Northwestern Switzerland, the first prototype of the PGLU circuit board was developed in 2015 and was taken over by Iftest in 2016. The next step was a process of design optimisation, so that the PCB layout of the PGLU circuit board could be designed to be visual, practical and user-friendly and therefore more marketable. A range of new prototypes was developed based on these parameters, and subsequently tested in schools. The result: a robust product that meets all usage requirements in school environments. This paved the way for a successful roll-out of the PGLU, which took place in October 2016.

The level of interest and engagement from ABB, one of the major players in Switzerland, shows how well conceived and future-proof this project is. This leading international industrial company has decided to get involved in production of this innovation, which amounts to CHF 20 per circuit board. This is a development that Rolf Beck is naturally please with. 'The requirements of an experimental circuit board specifically designed for use in classrooms are very high. A robust design paired with the ability to take many different power supplies just two of the properties required. Iftest's generous support and professional CAD design for the circuit board layout helped my project make a decisive step forward.'

PGLU.CH
Prozessorgesteuerte Lernumgebung

PGLU: technology that awakens emotions
The end point of a constructive and creative dive into technology is a product. A learning environment which awakens a journey into the unknown and increases the appetite for the new. Therefore PGLU becomes what it is by the ideas of the students, an image of our innovation society that is molded by technology.

More information (German only) at www.pglu.ch

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+ Services
  – Consulting
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  – Embedded software development
  – PCB design
  – Fast prototyping
  – PCB Assembly: SMT and THT
  – Module and device assembly

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Kontakt

Iftest AG | Tel. +41 56 437 37 37
bernd.maisenhoelder@iftest.ch