

## **Arrow Electronics and ROOQ team to innovate sports tracking**

*ROOQ Boxing technology delivers sophisticated performance data via sensors, app and online portal*

Global technology solutions provider Arrow Electronics and ROOQ, an innovator in sports measurement and analytics technology, have teamed up to create the ROOQ BOX, a sensor technology that enables boxers to monitor and review their performance using data that was previously only available under laboratory conditions.

ROOQ BOX comprises a pair of sensors worn within a strap on each wrist. The sensors record the movements made during boxing activity. The data is then analyzed in the accompanying ROOQ app and cloud using machine learning algorithms to provide a precise record of the session. Using this information, boxers and trainers can create a detailed picture of the training session including punch count, punch speeds, variability and punch force. The algorithm has been trained to identify eight different types of punches and to automatically categorize these while filtering out non-boxing specific motions.

The data delivered by the sensor technology, which was inaccessible to athletes until now, provides an invaluable tool to help boxers monitor and improve their performance. This information can be shared with their coaches. In developing the system, ROOQ has drawn on a wide range of experience from within its team including data, software, hardware and firmware specialists, sports scientists and mathematicians as well as boxers and coaches. This experience reaches to the highest level: ROOQ's chief sports officer, Henry Maske, is an Olympic boxing champion (gold medal, Seoul 1988) and professional world champion (1993 to 1996).

Arrow has been instrumental in leading the project in the firmware and hardware area between the suppliers of components, development and manufacturing services. Also, Arrow's elfochips engineering services were utilized in the project. Arrow has used its logistical and supply chain expertise to enable the product to be brought to market, and production scaled, in a smooth and efficient manner.

"This successful collaboration with ROOQ is a perfect example of how expert teams join forces and overcome difficult entrepreneurial challenges together," emphasized Martin Bielesch, president of Arrow's components business in EMEA. "Arrow's technical and logistical services enabled ROOQ to focus and execute on its leading competencies in delivering a completely new way of capturing diagnostic data in boxing."

Henry Maske sees many advantages in the cooperation between the two companies: "Arrow is a reliable and solution-oriented partner for us. We benefit from their immense experience as well as from their excellent global network."

Boxing is just the beginning. The training diagnostics technology is universally applicable. Ralf Rüttgers, founder and CEO at ROOQ, is convinced that the application areas of ROOQ are manifold. He commented, "Further development and transfer to the fitness market and other related sports, as well as use in the industrial sector, are all possible. Areas such as prevention, safety and health, will play a role in our future training analysis."

### **About Arrow Electronics**

Arrow Electronics guides innovation forward for over 180,000 leading technology manufacturers and service providers. With 2020 sales of \$29 billion, Arrow develops technology solutions that improve business and daily life. Learn more at [fiveyearsout.com](https://fiveyearsout.com).

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### **About ROOQ**

ROOQ is about to enter the global market with its training analysis technology. The company employs an interdisciplinary team of over 25 people at its headquarters in Aachen, Germany. The technology model founded in 2018, is a novelty for boxing. For the first time, athletes and coaches receive individualized information on their training performance. For more information, visit [rooq.de](https://rooq.de).

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