



# CASE STUDY

## INDUSTRIAL SHIELDS



## WIRE ELECTRODE RESIDUAL ANALYZERS WITH TOUCHBERRY 10" PANEL PC

In welding, it is essential to know the surface condition of the wire electrodes used. They can deteriorate over time; wire feeding systems can become contaminated during storage or transport, affecting the quality of the weld.

Although it is difficult in practice, assessing the surface condition and therefore knowing the condition of the electrode are very important for a reliable and good welding process. So one of our customers has developed a solution for this.

## CHALLENGE

**MIGAL.CO** is a German manufacturer of high quality filler metals for MIG and TIG welding. Founded in January 2000 with headquarters in Landau / Isar, Bavaria. MIGAL.CO is present in all world markets.



Company's goal: **to develop** a flexible and adaptable **SMKY 2 Residual analyzer**, without paying licensing fees of any kind.

## SOLUTION

Industrial Shields suggested the installation of a **Touchberry 10" Panel PC** on the customer's equipment. Being open source based, the Panel PC operating system does not require any licensing, making it the perfect choice for applications such as these where flexibility is required.

The analyser takes a 25 cm long piece of cable that is clamped inside the machine. This piece of cable is then heated almost to its melting temperature. This causes all the contaminants in the cable to evaporate and these vapours are collected by a sensor.

The sensors send their reading to the Touchberry 10" touch screen via UART, which is further processed within the Panel PC. The results are then processed and displayed on the Panel PC within minutes, both in graphical and numerical format.

Migal.co has pre-set parameters for most materials on the market, although new parameters can be added or modified if required.

The **SMKY2 Residual Analyser** also has the ability to integrate into production plants and have more peripheral devices connected to it, such as barcode scanners, to make the whole process of data collection, storage and processing more efficient.



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## BENEFITS



### Fast information

Thanks to the system implemented by Industrial Shields, the information reaches the customer with the maximum immediacy thanks to:

- the speed of data processing
- the visibility of the data in a user-friendly environment



### Adaptable system

Industrial Shields open source technology offers the customer:

- a flexible and adaptable system which can be expanded according to the customer's requests
- a free solution with no licence fees of any kind

## WHY INDUSTRIAL SHIELDS?

Industrial Shields won this project and beat its major competitor thanks to the key points below:



The customer is the **owner of the whole application**, because he knows the code used.



**Wide range of products** (PLCs, Panel PCs and OpenMotes) to cover all customer needs.



**24/7 technical support:** Our technical team is available to help you 24/7 via phone, mail or WhatsApp.



Equipment designed and manufactured for **industrial use** at a **lower price** than competitive products.