

For immediate release

Short interview with the Technical Director of the Irlbacher Group of Companies

Five questions for Günther Irlbacher

- 1) Does Irlbacher see itself as a glass specialist or as an electronics development company?

Günther Irlbacher: Both is true. On the one hand, we are probably the company with the world's most comprehensive range of processing options for flat glass. But for almost 20 years we have also been an electronics company that develops microcontroller assemblies, prints circuits on glass and does SMD assembling. Over those years, we have worked out a dozen technology platforms, including an embedded HMI solution kit.

- 2) What exactly do you mean by "embedded HMI"?

Günther Irlbacher: The possibilities of modern HMIs are immense and sometimes very complex. We often combine proximity sensors, light effects and background lighting, signage functions as well as the control of displays. We facilitate navigation on the flat glass surfaces with ground-in or elevated haptic elements. Combining these diverse possibilities correctly and creating the optimal HMI for an application requires in-depth knowledge of the technical and physical interrelationships.

By embedded HMI we mean that we process all sensor signals and display data directly on the HMI, thus relieving the customer's system. To do this, we use powerful PSoCs with ARM Cortex M0 and M3 cores. If we mount these directly on the glass, we achieve very slim packages of only a few millimetres.

- 3) What other possibilities are there in this technology?

Günther Irlbacher: Because no internal knowledge needs to be shared, development processes can be parallelised. While we develop the embedded HMI and design the cover glass for it, the customer realises his application. That saves time and money.

The PSoCs contain a lot of computing power, so there is already a whole range of devices that manage without a control board: The hardware and software of the customer's application is integrated into the embedded HMI.

4) How does your approach affect your customers' supply chain?

Günther Irlbacher: We supply our customers with embedded HMIs with the designed cover glass, display, mounting and fixing frames, seals, etc. as a ready-to-install mechatronic assembly. Internally, we attach great importance to designs with standard components, which are comparatively easily available even in these times. This allows us to keep our own warehouse lean, even though we have increased it considerably in recent months. With this strategy, we and our customers are getting through the current situation quite well so far.

5) What are your expectations for the future development of embedded HMI technology?

Günther Irlbacher: Practically every embedded system needs an HMI in some form. This does not always have to be a 21.5" touch. Accordingly, we have touch surfaces without any display, for example, or touch solutions based on a combination of our technology with readily available no-touch standard displays. We have all the competences for this under one roof - including optical bonding or injection-mould technology.

For further information: www.irlbacher.com

< **Picture: Guenther_Irlbacher.jpg** >>

Günther Irlbacher is the Technical Director of the Irlbacher Group of Companies from Schönsee in Bavaria. © Irlbacher



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<< Company Profile >>

Founded in 1935 in Schönsee (Bavaria), the family-run Irlbacher group is today a global specialist in glass technology. On ten hectares, over 600 employees process more than 50 types of glass with the highest precision - for hygienic HMIs, elegant interior and exterior lights, stylish stoves, aesthetic building technology, functional sanitary objects or micrometre-precise for the process industry.

Irlbacher has the widest portfolio in glass processing worldwide. An in-house printing and design centre implements smart multi-material solutions. The Application technology department is constantly exploring new technical possibilities. The own R&D facilities contribute sophisticated touch solutions - and use the back of the HMI glasses to directly solder the corresponding electronics onto. Not to forget the company's own mechanical engineering: These machines, transforming over 85 years of experience and knowledge into industrial processes, cannot be bought.

Over time, Irlbacher has developed into a solution provider for complex, glass-based assemblies. The basis for this is our own modular solution construction kit, consisting of a dozen well-developed technology platforms.

The company has continuously invested in sustainability since 1990 and is working on reducing its ecological footprint. Since 2018 Irlbacher has been one of the few medium-sized companies in the climate protection and energy efficiency group of the German economy. At the end of 2020, the company's own CHP with a total output of 2.1 MW went into operation. This combined heat and power system saves over 1,100 t of CO₂ every year.