



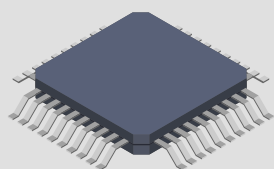
What's happening in the Semiconductor industry?

Fagor Electrónica has been manufacturing semiconductors for several sectors for years, in these lines we explain briefly what is happening.

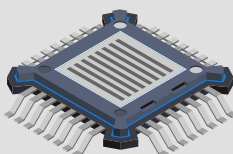
The semiconductors that Fagor Electrónica has been developing and manufacturing since 1965 belong to the **Discrete components family**.

The world of semiconductors is very wide and according to the functions performed by each of them, they are subdivided into **families**, the most important of which are: Memories, Microprocessors, Optoelectronics and finally the family of Discrete components.

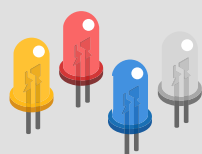
These discrete components are responsible for rectifying, attenuating and limiting the electrical signal flowing through an electronic circuit so that when the signal reaches the microprocessor/microchip of the circuit, it is in the right conditions for the **microprocessor (brain)** to make the appropriate decisions and issue the correct signals/actions for any application (vehicle, appliance, computer, server, ...).



Memories



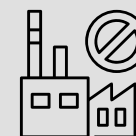
Microprocessors



Optoelectronics

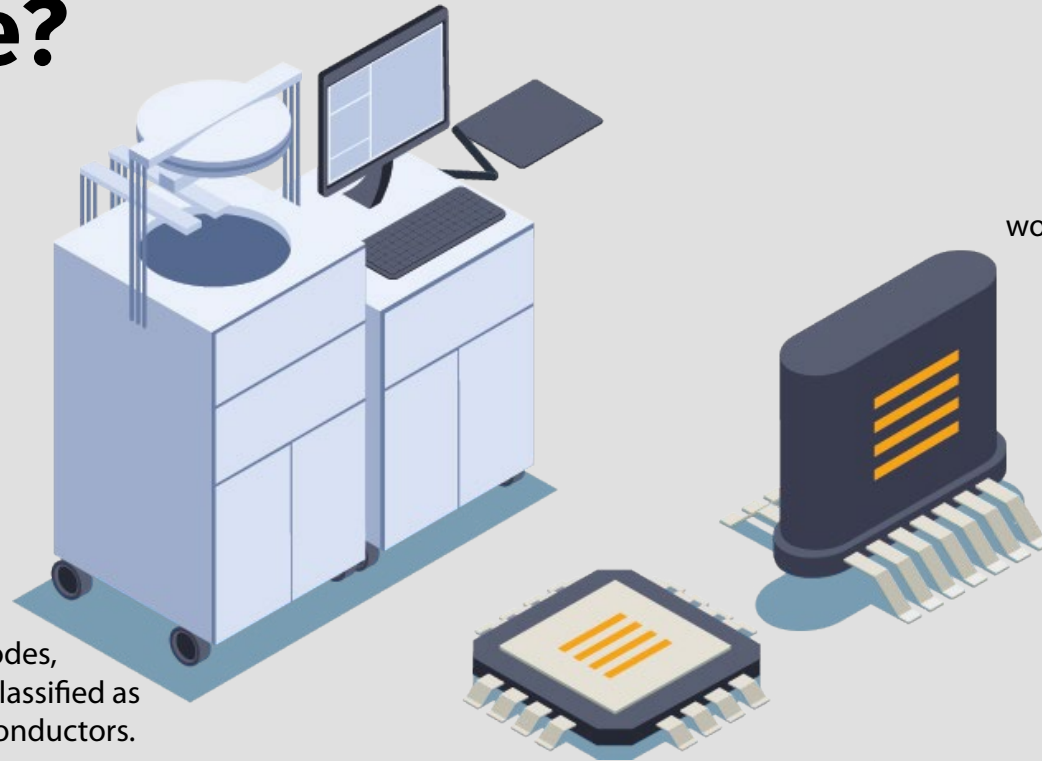


Discrete Components



Today, the lack of supply of microprocessors (one of the most relevant families in the world of semiconductors) is generating a worldwide crisis of manufacturing line stoppage in wide sectors and not only in the automotive industry.

What does Fagor Electronica manufacture?

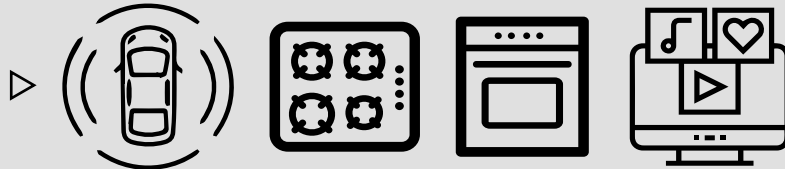
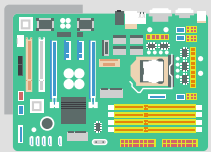


As an example, 1 out of every 4 **vehicles** sold in the world or 1 out of every 10 **electric cooktops** sold worldwide also carry Fagor Electronica components.

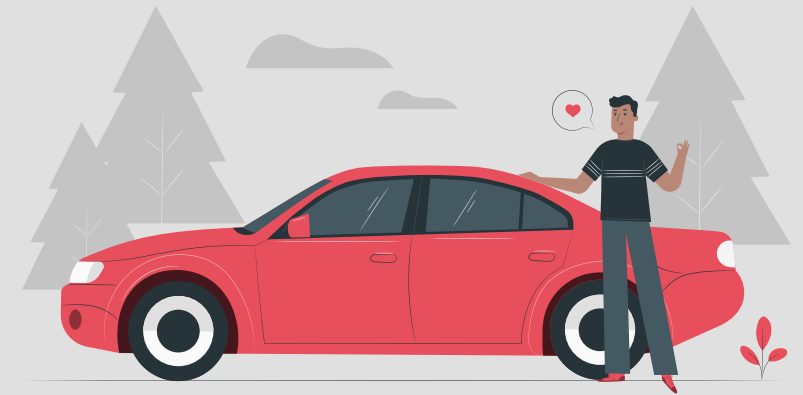
In all these products, the Fagor Electronica component is **not visible** to the naked eye.

In Fagor Electronica we manufacture Diodes, Suppressors, Thyristors, etc... which are classified as **Discrete** within the wide world of Semiconductors.

Thanks to the great need to electronify our world, the use of our products is widespread in sectors as different as **automotive, household appliances, computers, cell phones, IoT (Internet of Things),** etc.



1 out of every 4
vehicles



1 out of every 10
electric cooktops

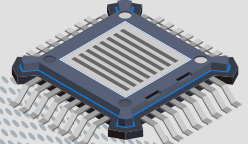
Where are the manufacturers?



Throughout Europe there are some semiconductor manufacturers located in **France, Italy, Holland, Spain, Germany**, but none of them manufacture next-generation microprocessors.

The main manufacturers of latest-generation microprocessors are located in **Korea, Taiwan and China**.

 **Semiconductors**
France, Italy, Holland, Spain, Germany

 **Microprocessors**
Taiwan, Korea & China

Fagor
Electronica is the
only manufacturer
of semiconductor
components
(Discrete) in Spain.

FAGOR 
ELECTRÓNICA

Southeast Asia is the key



The dependence on Asian manufacturing of microprocessors is total, given that some **20-25 years ago** the electronics industry decided to move the manufacture of most semiconductors, including microprocessors, to Southeast Asia.

Currently, the investment to build latest generation microprocessor production plant amounts to **US\$ 14 billion.**

Decrease in production capacity due to:



Drought in Taiwan, to manufacture semiconductors, huge amounts of water are needed.



Power outages

Causes of the demand rebound:



Increased consumption of computers, cell phones, tablets... as a consequence **of the pandemic.**



Need to adapt cell phones to **5G technology**



Increased introduction of **electric vehicles**

The **“over-ordering phase”** has been entered, leading to a collapse in demand relative to supply.

It is estimated that the situation may normalize by **the second half of 2022.**

During this time, manufacturing and potential growth in many industries will be limited by the availability of microprocessors. We will need a lot of flexibility, adaptation and a lot of work and closeness with suppliers.

