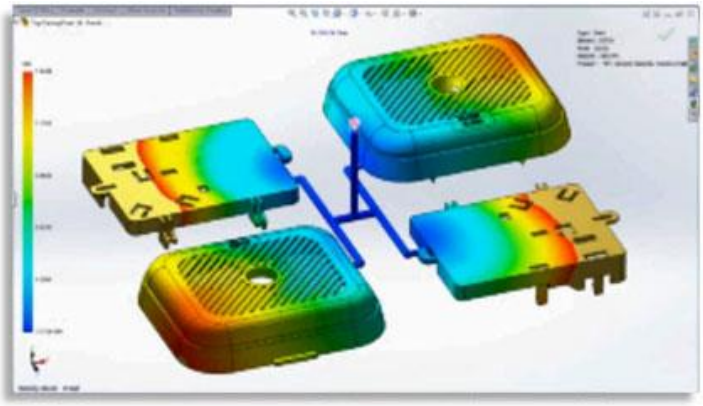
Wireless Sensor for injection molds

Injection molding is very effective way of mass production of plastic components. The key to success for injection molding depends on the quality of the injection molds. Typically, injection molding machines are equipped with state of the art process control and monitoring systems. Despite such high tech equipment, due to the complexity and cost of mold instrumentation, molds are rarely instrumented even though part quality is often governed by the mold. The medical and automotive industries, however, do use mold instrumentation despite its current cost and complexity.

This invention advances the effort to convert a traditional mold into a smart mold. More specifically, it helps in monitoring the quality of the parts and health of the injection molds through its novel method of utilizing wireless sensors to communicate processing data (such as pressure, temperature, etc.) within a shielded electromagnetic molding environment. It also provides Industry 4.0 ready manufacturing environment for injection molding.



(image source: www.solidworks.com)

Competitive Advantages

- Eliminates need for wired sensor components from mold maintenance processes
- Reduces installation time and complexity
- Simplifies mold construction
- IoT for injection mold

Commercial Applications

- Smart mold machine sensor
- One-fits-all type of sensor
- Convert existing mold in to smart mold

IP Status

- Patent pending
- Licensing available

Status of Development

- Prototyping stage

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Further information on this technology can also be found at this link:

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