Smart Molded Structures

TACTOTEK™
TactoTek - Leader in In-Mold Structural Electronics (IMSE)

**Founded:** 6/2011

**Employees:** 60+

**Core business:** design, licensing and manufacturing of 3D smart in-mold electronics

**Patented** and patent pending manufacturing processes and applied uses

**Primary markets:** Automotive, Appliances, IoT

**TactoTek Locations**

Oulu (HQ) Finland, USA, Germany, Sweden, Switzerland, China, Taiwan, South Korea, Japan
TactoTek **Solution: IMSE**

TactoTek designs and produces **3D injection molded structural electronics (IMSE)**—technology so advanced that it simplifies electronics design and integration while using **less plastics** and **environmentally sustainable processes**.

**Intelligence and functionality**

encapsulated within plastic as thin as 2 mm

- Printed circuitry
- Printed sensors, controls and antennas
- Electronic components

**3D Design Freedom**

- Light, thin structures
- Durable & protected electronics

**Simplified electrical and mechanical assembly**

- Scalable & cost-efficient mass production with existing equipment
- Low Total Cost of Ownership
Example: **Automotive Interior Use Cases**

**Smart Overhead Control Panel**
- Sunroof/light controls, ambient light stripes
- IMSE wire harness across front to rear zones

**IMSE Wiring Harness**
- Door panel IMSE harness, front/rear

**Smart Door Handles**
- Window & door lock controls

**Rear 3D Center Console**
- 3D trackpad, IVI controls
- Seat controls

**Mood Illumination**

**Smart Deco Panel**
- Seat & mirror controls
- Touch on veneer/leather/fabric

**3D Center Console**
- 3D trackpad, IVI controls
- Drive mode 3D knobs

**Smart Slimline Deco Panel**
- Seat controls

**Smart Steering Wheel**
- Turn signal controls (e.g. rear mounted)
- Gear shift ops (e.g. rear mounted)
- Driver detection
- IVI/drive controls

**Smart Vents**
- Slim line active vent controls
- Temp/ Fins

**Smart Deco Panel**
- A/C & IVI controls
- Active zones
- Touch-on – veneer/leather/fabric

**Smart Overhead Control Panel**

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### Selected IMSE Environmental Benefits

<table>
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<tr>
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<th>Representative IMSE Part vs. Traditional Electronics Design</th>
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<tbody>
<tr>
<td><strong>Eliminate Parts</strong></td>
<td>Reduces resource depletion — less plastics used, -70%</td>
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<tr>
<td><strong>Reduce Mass</strong></td>
<td>Global warming emissions reduction — less processing energy -75%</td>
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<tr>
<td><strong>Additive Processes</strong></td>
<td>Vehicle applications → better energy efficiency</td>
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- **Resource Depletion**
  - Traditional
  - IMSE

- **Global Warming Emissions**
  - Traditional
  - IMSE
Thank you!

www.tactotek.com