

# EFEM Platform



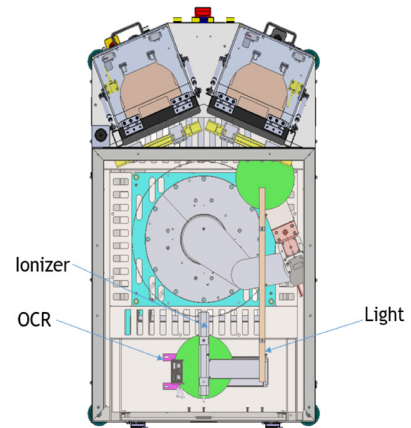
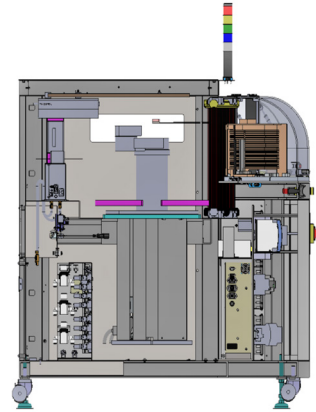
Our **EFEM Platform** can be customized to suit your application's cleanliness, handling technique, throughput, and form-factor specifications. From design to manufacturing, this single platform offers the needed hardware, software, vision, optics design, sub-micron metrology, environmental control and materials handling for varying complexity and precision requirements.

# EFEM Platform

## An Ultra-Clean, Reliable Platform for Wafer Handling

Get to Market Faster:

- Adaptable to different wafer technologies including film-frame carrier strategies, taiko wafers, thin/thick wafers, bonded wafers, non-flat wafers / wafers with 3D structures, and glass wafers
- High MTBF
- Mini-environment for contamination
- ESD charge control options
- Vacuum and low contamination integration capabilities
- Configurable layout for process simplification and/or footprint/ form factor optimization
- High accuracy aligner systems to 10 μm accuracy
- Integrated vibration isolation capabilities



EFEM Platform	
<b>Environmental</b>	<ul style="list-style-type: none"> <li>• Mini-Environment for up to ISO Class 1 Operation</li> <li>• Temperature Control</li> <li>• Electrostatic Charge Reduction</li> </ul>
<b>Wafer Handling</b>	<ul style="list-style-type: none"> <li>• Wafer Size: 300, 200, 150, 100</li> <li>• Accommodates Various Thicknesses and Warped Wafers</li> <li>• Varying Substrate Materials (Glass, Silicon, Silicon Carbide, Germanium)</li> <li>• End Effectors or Various Gripping Technologies (Edge, Vacuum, Bernoulli)</li> <li>• Wafer Flipping</li> <li>• Industry Standard SMIF and FOUP Load Ports (one to four interfaces)</li> <li>• Accommodates Special Modules such as High-Precision Aligners</li> </ul>
<b>Robotics</b>	<ul style="list-style-type: none"> <li>• Single and Dual Arm</li> <li>• 3-Axis and 4-Axis</li> </ul>
<b>Vision &amp; Optical</b>	<ul style="list-style-type: none"> <li>• Barcode Readers</li> <li>• Fiducial Recognition</li> <li>• OCR</li> <li>• Defect Analysis and Characterization</li> <li>• Flatness Analysis</li> </ul>
<b>Software Requirements &amp; Features</b>	<ul style="list-style-type: none"> <li>• Standard 300 mm &amp; 200 mm SEMI Compliant Libraries</li> <li>• Interfacing Protocols to Host Controller in Standard EFEM</li> <li>• SMEMA &amp; SECS/GEM Interfaces</li> <li>• Data Management and Tracking Capabilities</li> <li>• SEMI E95 Compliance for Human Machine Interface (HMI)</li> <li>• Wafer Mapping</li> </ul>