

Hine Automation's June Newsletter

Thank you for following our emails for monthly updates related to **semiconductor and robotic industry news**, **recent HA product launches**, as well as other helpful resources.

We are always open to your suggestions! If there is something you'd like to see featured in an upcoming issue, please drop us a note at news@hineautomation.com.

Hine Automation's HALO in the News



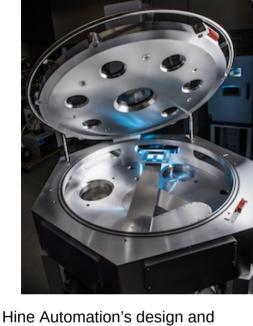
Hine Automation's news of our HALO software launch made a big splash in the digital headlines!

Check out some of the publications that released our announcement **here**. Select the heading "Click for Google Indexed Pages" to see the respective articles.

The news was also shared via the Digital Journal here and Tampa Bay Newswire here.

For questions related to our HALO software or for more information, contact us at sales@hineautomation.com.

Hine Automation's Custom Configurations Enable OEMs to Bring New Technologies to Market Faster



manufacturing of robotic components and automation systems can be utilized in hundreds of technological applications and allow for faster development times. When you are competing against multiple research groups and several commercial groups who are all in the race to create new technology, patent it and then bring it to market, speed is essential. Hine Automation's robotics is an essential part of the engine that makes development happen quickly.

alternative sources of energy, there continues to be many exciting advances in the solar cell space, and the time it takes to get that innovation to market is critical.

Angstrom Engineering is doing

exciting work and is utilizing Hine
Automation's equipment. Angstrom
Engineering's partnership with Hine
enables several of Angstrom's
customers to advance their research
and development of novel solar cells.

There is a lot of promise right now

with the potential of solution processed perovskite materials, a non-silicon-based solar technology. Perovskite solar cells exhibit excellent absorption of solar photons, and can be made thinner and more lightweight than silicon solar cells while maintaining competitive power conversion efficiencies.

Solution processed solar cell devices are fabricated via the deposition of sequential thin film conductor or semiconductor materials. Human handling of these compounds may introduce additional impurities that may be detrimental to optoelectronic device performance.

Using Hine Automation's fully

mechanized, robotic device encapsulation system in conjunction with Angstrom Engineering's high vacuum deposition chambers allows controlled manipulation of the materials in high vacuum or inert environments - the risk of device damage through human error is fully eliminated through automated processes.

Hine has significant experience working with some of the most innovative minds around the globe and has proven its ability to provide fully functional and customized solutions to support OEM equipment. Hine Automation's solutions are powerful enough to manage any wafer handling need out of the box, yet, still customizable to address specific business requirements.

For a closer look at some of Hine Automation's projects with Angstrom Engineering, view the following videos on our YouTube channel.

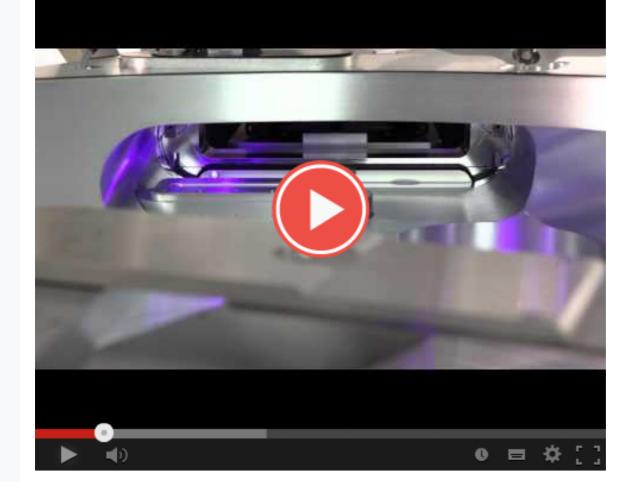
University of Oxford: A National

Automated Device Encapsulations

Thin Film Deposition Facility for Advanced Functional Materials

ability to integrate with OEM products, contact sales@hineautiomation.com.

For more information on Hine and its



Product Highlight: HA-5.0V



Hine's Vacuum Robot, the HA-5.0V, is an important addition to our solid product base. The HA-5.0V has been around since 2010 when it was designed to replace Hine Design's 4.5 model robot.

Quick History lesson: Hine Design is the predecessor company to who we are today-Hine Automation.

It is especially suited for production environments requiring:

- minimum vibration
- minimum particle contamination
- high throughput with high reliability
- ultra-high vacuum
- multiple reach requirements using both standard and customer-specific arm lengths

The HA-5.0V easily handles a wide range of wafer sizes – 75, 100, 150, 200, 300 and 450mm.

To ensure quality, production maintains 2 robots constantly in test, one with over 10 million cycles on the Reliability tool.

The HA-5.0V is truly one of our most successful products. Highly reliable and flexible, its versatility is unmatched for loads, reach and a variety of handler platforms.

If you would like more information about Hine Automation's HA-5.0V, contact sales@hineautomation.com.

Brand Promise Focus: "Our Why"

Continuing with our Brand Promise focus series, this month we turn our attention to

Hine Automation's "**Why**".

and frames how we communicate and innovate with our customers.

At the forefront of "Our Why" is Hine's commitment to delivering **custom**

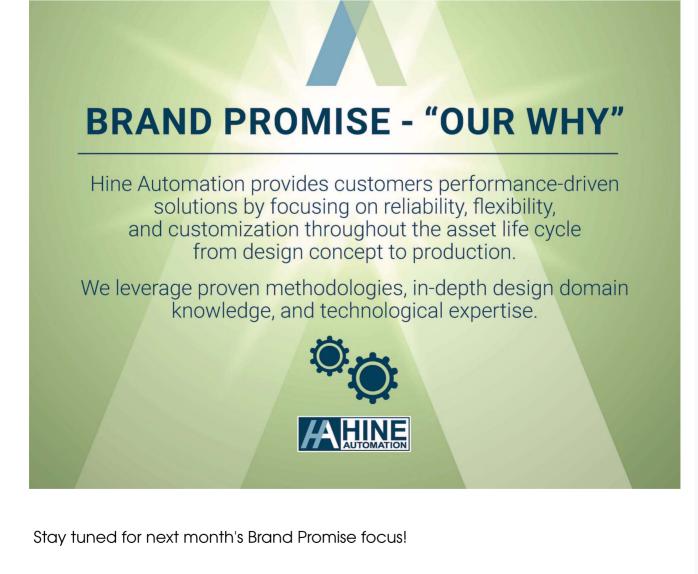
"Our Why" refers to our unique promise and value proposition in the marketplace,

products and **solutions** with a flexible approach to meet specific project needs. Our years of semiconductor and robotics expertise allows for **proven techniques** and **indepth design domain knowledge**.

• Deep **expertise** in the **semiconductor** space

Reasons "Our Why" appeals to customers:

- Focus on relevant, current technology
 Rooted in integrity and transparency
- Value of service and support worldwide
 Combined efficiency in speed and quality



Check out our New & Improved Website!

We would love to hear your thoughts for our upcoming newsletters!



Are there certain topics you would like to see covered in a future Hine Automation newsletter? If so, please email us at news@hineautomation.com with your ideas.

www.hineautomation.com

Please follow us on social for all our latest updates!





