

News Release

Yamaha supports 3D MID learning at Friedrich Alexander University



From left to right: M.Sc Nils Thielen (Research Assistant FAPS), M.Sc Philipp Bräuer (Research Assistant FAPS & 3D MID e.V.), Prof. Dr.-Ing. Jörg Franke (Head of Institute FAPS)

Yamaha Motor Europe Robotics, SMT Section is supporting the Institute for Factory Automation and Production Systems (FAPS) at Friedrich Alexander University in Nuremberg, Germany, to enhance the study of cutting-edge 3D MID technology.

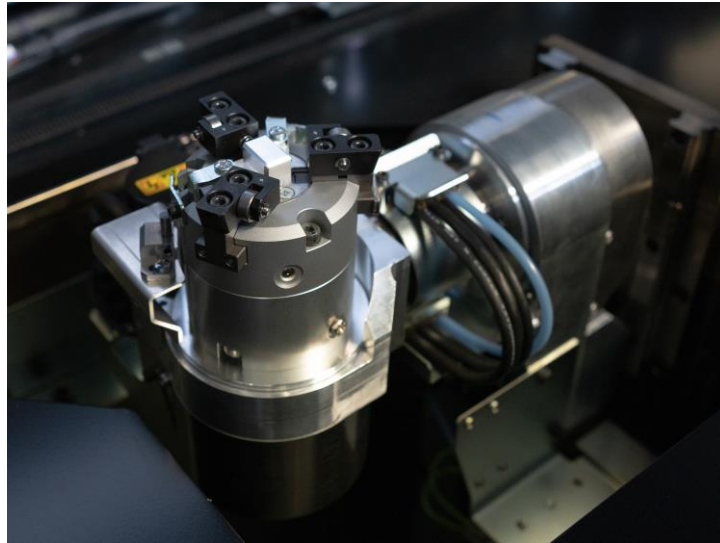
By providing FAPS with the Yamaha S20 modular 3D dispensing & mounting machine, Yamaha has enabled the faculty to use the Yamaha S20 machine with the unique robot manipulator to build 3D MID products by dispensing glue and/or solder paste and mounting electronic components in one production step. Yamaha is also providing technical support and expertise, leveraging the skills of its experienced field engineers, to help maintain the machine and assist learning and research.

The collaboration with FAPS builds on Yamaha's membership of the German Forschungsvereinigung 3D MID e.V, announced in April 2020, to further strengthen the Company's commitment to 3D MID technology. By allowing circuit structuring and component placement directly on a moulded substrate, such as the device enclosure, 3D MID enables complex, high-tech products to be produced simply and economically, as well as being small and lightweight. It is an ideal technology for advanced consumer devices, automotive electronics, and IoT endpoints such as smart sensors and actuators.

"Yamaha's commitment enhances the quality of the education we can provide for our students and empowers our researchers to tackle exciting new challenges. We can do so much more now that we have a complete automated 3D MID line, and the technical backup from the Yamaha team gives us extra confidence to reach further and discover the full extent of this technology's capabilities," said Head of Institute for Factory Automation and Production Systems (FAPS) Institute Prof. Dr. -Ing Jörg Franke.

Richard Vereijssen Product Marketing Manager of Yamaha Motor Europe Robotics business, commented, "FAPS' 3D MID program is closely connected with our vision for the future and we are pleased to help tomorrow's engineers gain the insights they need through hands-on experience." He

added, "It's a learning opportunity for us, too, as we continue to develop future generations of equipment and services to support our commercial customers."



S20 robot unit

Yamaha's S20 modular hybrid mounter, as supplied to FAPS, is currently the main standard for 3D MID production. The machine combines a 3D robot manipulator with multiple dispenser heads and surface-mount pick-and-place heads to consolidate solder-paste and/or adhesive dispensing with component placement on the same platform. In addition to saving footprint and streamlining 3D MID assembly, the S20 also boasts easy programming to simplify and accelerate prototyping as well as mass production.

For more information, please visit the website at <https://smt.yamaha-motor-im.de>

About Yamaha Robotics SMT Section

Yamaha Surface Mount Technology (SMT) Section is a subdivision of Yamaha Motor Robotics Business Unit in Yamaha Motor Corporation. Yamaha surface mount equipment is highly acclaimed in the market for their "module concept" that enables them to keep pace with the trend toward smaller and more diverse electric/electronic parts being mounted on circuit boards.

Yamaha SMT Section has created a strong business in the surface mount industry that enables design and engineering, manufacture, sales and service to be conducted in one comprehensive system. Furthermore, the Company has used its core technologies in the areas of servo-motor control and image recognition technology for vision (camera) systems to develop solder paste printers, 3D solder paste inspection, 3D PCB inspection machines, flip chip hybrid placers, dispensers and intelligent SMD storage system. This allows Yamaha SMT Section to offer a full line of machines for electric/electronic parts mounting and propose optimum production-line makeup to answer the diversifying needs of today's manufacturers.

Yamaha SMT Section has sales and service offices in Japan, China, Southeast Asia, Europe and North America provide a truly global sales and service network that will safeguard best in class on-site sales & service support for clients.

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