

EmTroniX delivered flight hardware and final software for the JuRa project!

It was a 4-year project.

During these years, a consortium led by EmTroniX with IPAG in Grenoble (FR), TUD in Dresden (DE), Filip Záplata (CZ) and Astronika (PL) developed a low frequency radar called JuRa for ESA's planetary defence mission: Hera. JuRa, which stands for Juventas Radar, will be flown aboard the Juventas CubeSat deployed by Hera to map the impact left by NASA's DART spacecraft on the Dimorphos asteroid as well as its general surface topology and material composition.

An important milestone was already achieved last summer when EmTroniX delivered the flight hardware (PFM) to GomSpace for its final integration into the Juventas CubeSat by the Luxembourg team at their facilities in Denmark. Our remaining work was to provide support to the integration and finish the software and JuRa tools to complete the project.

The final software has been delivered and is currently undergoing tests on a dedicated satellite model (flatsat) before being installed on the actual flight unit. Afterwards, the next important milestone for the company is JuRa's launch planned beginning of October 2024.

In the meantime, the Juventas payload is undergoing several testing campaigns before it can be integrated and tested in the complete Hera satellite to be ready for launch.

The low frequency radar is based on EmTroniX's previous Software Defined Radio development. The company is currently working on a second generation with improved high-speed data acquisition and processing capabilities.



Picture of the JuRa payload being assembled

About EmTroniX

EmTroniX is a Luxembourgish SME, founded in 2001 and specialized in embedded software and advanced electronics. It provides services, products and projects based on its expertise in seven sectors: FPGA, Software Engineering, Digital Signal Processing, Hardware Engineering, RF Design, Mechanical Design and Assembly & Production.

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