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Trials at the Idrija mine further prove UX-1's capabilities; First autonomy tests underwater were a success

The second trials with the new UNEXMIN technology took place in the Idrija mercury mine, in Slovenia, from the 10th to the 21st of September. In the Idrija mine, an UNESCO's world heritage site, the UX-1 robot managed to explore and map the accessible parts of the underground flooded mine.

Early in the first week, the communication equipment and control station set-up and equipment dry-testing were the main tasks. The UX-1A robot was also transported to the launching point which was -192 m below surface. The first dives were performed in the harsh water environment, where a mix of obstacles, confined space and lack of visibility – only a few tens of centimetres – contributed to the challenging work for both the robot and the technical teams.

On the second week the UX-1A robot dived through the entire available part of the flooded shaft in Idrija, to 26m water depth, down to the so-called IX level. The navigation until this point was only possible due to the UX-1A's own discovery, as the bottom of the shaft was thought to be blocked by a wooden platfom. Testing of instrumentation was also done, including tests with the multispectral camera, sonars and SLS imaging units, that greatly helped with UX-1A's navigation. The first fully autonomous mission was also done, a big achievement for the project.

The trials at the Idrija mine went by without a single accident with no human harm or damage of the equipment or the mine itself, resulting from careful planning and execution by the UNEXMIN team, making this trial a success. The robot now traveled to Porto, Portugal, where further development of the technology will take part with special focus on the UX-1's autonomy.





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