

WeLASER status at the project midterm

System status

WeLASER achieved the project midterm on March 30, 2022, which was technically delayed by one month because of the Covid-19 and other economic and political crises. About that time, the WeLASER system was assembled, the first tests were conducted and preliminary conclusions were made as reported in WeLASER Practice Abstract 36.

In the middle of June 2022, the WeLASER consortium held the project review meeting at CSIC facilities. The REA Project Officer and two External Experts discussed the project activities and outcomes with the consortium. Some short demonstrations were conducted: (i) the laser source was shown killing some plants and (ii) the autonomous robot was automatically driven to the experimental field.



Practical conclusions

The activities carried out to organise the review meeting and related demos helped in (i) advancing the detection of some design problems and malfunctions (ii) debugging the software related to communications, (iii) validating the assembling of the whole system (installation of the electronic boxes, the attachment of the weeding implement, etc.), and (iv) understanding how to improve the crops in the experimental fields for performing the project tests and demos. In addition, the consortium learned that (i) the detected design problems are minor to impact the final system characteristics negatively, (ii) the software architecture based on the Robot Operating System (ROS) and FIWARE (Future Internet ware) will facilitate the sub-system integration, (iii) the procedure for assembling the system resulted in an ease process that will impact the manufacturing cost and (iv) the experimental fields will be able to grow the target crops for the final demo by the end of the project (September 30, 2023).

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