

Meet AISOY1 the robot, autism therapy assistant

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AISOY-UMH autism spectrum disorder therapy. Credit: Asociación RUVID

Researchers at the Universidad Miguel Hernández (UMH) and AISOY Robotics are collaborating to expand the potential of their robot assistant for the treatment of children diagnosed with autism spectrum disorder (ASD). Specifically, the goal is to explore the ways in which the AISOY robot can enhance therapy sessions at the UMH University Clinic.

Current therapy at the University Clinic for children diagnosed as on the autism spectrum already incorporates the AISOY1 emotional robot as therapist's assistant. The researchers on this multidisciplinary team will be combining their knowledge of behavioural therapy and robotics to devise new ways of using this robot in therapy sessions to bring additional benefits.



A body of three-way interactive tasks between the child, their therapist and the robot will be designed and tested initially on young ASD outpatients. The idea is that through these interactions the child will improve their cognitive, emotional and social (communication) skills. For instance, the robot "assists" the therapist by expressing emotions that the child must identify and proposing games that target different skills. It is expected that the child will form emotional links with the robot, and that this and the extra interaction it brings to the sessions will improve therapeutic adherence.

In the future the researchers plan to extend the robot assistant to the <u>therapy</u>-based treatment of other childhood problems, such as attention deficit disorder, hyperactivity and impulsivity symptoms.

From January onwards, a tried-and-tested version of the software developed for the AISOY robot will be available, with a specialised ASD mode designed for use by both therapists and parents.

UMH University Clinic: a healthcare technology centre for the transfer of advances in clinical research in behavioural sciences to society. UMH lecturers José Pedro Espada and Elena Carratalá, both doctors in psychology, are behind the psychoeducational side of the new software.

AISOY Robotics: a high-tech company based at the UMH Science Park. CEO José Manuel del Rio is leading the artificial intelligence-based adaptations to enhance the therapeutic value of the AISOY1 <u>robot</u>.

Provided by Asociacion RUVID

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