

6 Clean Water and Sanitation

Geomembrane to save water

Water and water resources are becoming more and more important. Geomembrane is generally utilized to prevent water leaking beneath the soils, but it has recently been used as a final layer in ponds, tunnels, municipal landfills and similar applications according to their features. Dr. Şehram Dizeci from the Department of Mechanical Engineering designed a robot to apply this welding on geomembranes and it plays a critical role in water resource security. The geomembranes are in the form of thin and long layers which should be welded at the site with fusion or extrusion welding methods. These machines are continuously developing, and they are now carrying the name of the robot due to implementing closed-loop control systems. In this project, a new wedge welder robot has been designed and manufactured using new technologies.

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