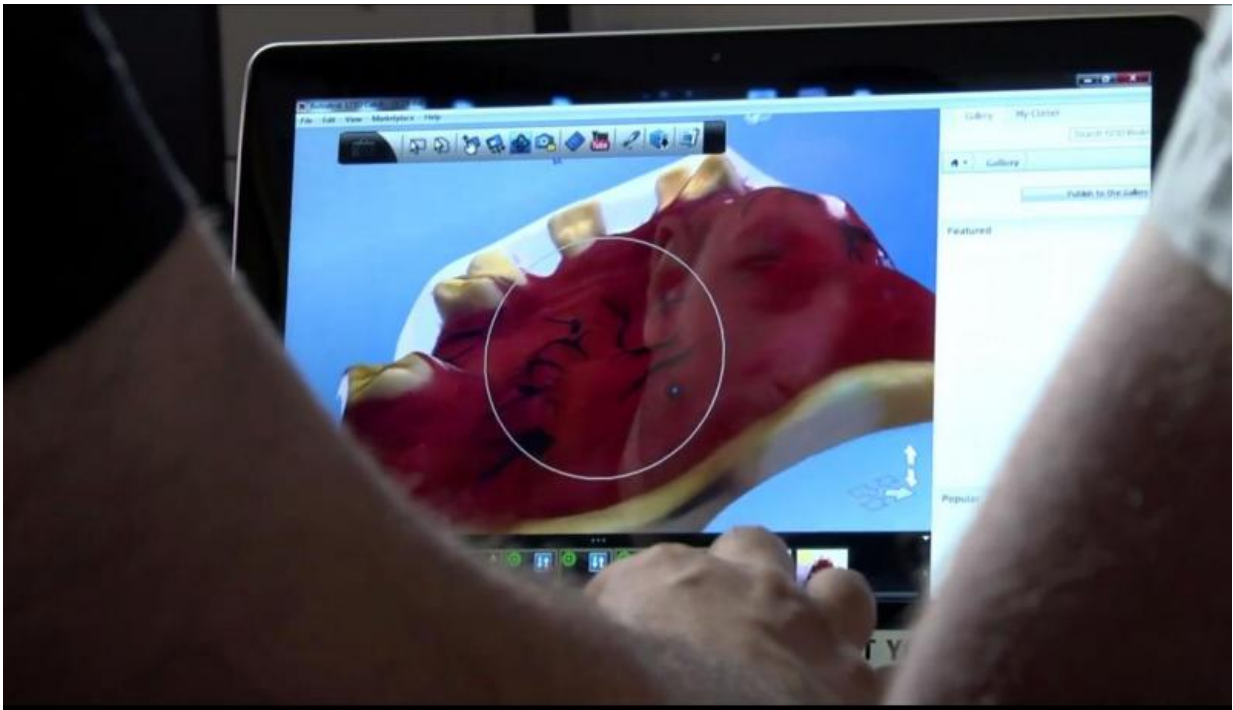


From 30 days to 30 minutes: 3-D digital scanning shortens denture-fitting time

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Students at the BioDesign: Medical Innovation program, a joint effort of the Hebrew University of Jerusalem and the Hadassah Medical Center, designed a system that reduces the time it takes to get dentures from 30 days to 30 minutes. Credit: BioDesign Program at Hebrew University / Hadassah Medical Center

Dentures, known as false teeth, are prosthetics constructed to replace missing teeth. Fitting removable dentures is a long and painful process in which a patient has to visit the clinic multiple times so that soft and hard

plastic material, resembling silly putty, can be used to take exact measurements of her mouth. Failure to take exact measurements causes discomfort and pain.

"The process of fitting dentures hasn't significantly changed in the last 100 years," said Dr. Anat Sharon, Director of the Maxillofacial Prosthetics Clinic at Hadassah Medical Center. "It is such a long process that most dental clinics simply refuse to carry out the procedure."

The BioDesign: Medical Innovation program, a joint effort of the Hebrew University of Jerusalem and the Hadassah Medical Center, allowed Sharon to recruit top engineering and business students to help her develop an alternative technology.

"HoloDent is the first holography scanning device for intraoral 3D modeling, reducing the time it takes to get dentures from 30 days to 30 minutes, while making the treatment far more comfortable and precise for all patients," said Amit Zilberstein, a BioDesign fellow and CEO of the HoloDent company. The group won a recent award at the Startup Open Israel competition and participated at the prestigious MassChallenge acceleration program in Boston, Massachusetts earlier this year.

"HoloDent is a testament to the immense creativity and drive of our students," said Prof. Yaakov Nahmias, director of Israel's BioDesign program. "The experience and maturity of our fellows are predicates to successful spin-offs such as HoloDent."

The technology addresses a market of \$500 million in the United States alone. HoloDent also aims to improve the accessibility of accurate denture fitting for aging populations in developing countries, eliminating the need for a dentist in those areas by providing access to a cost-effective digital solution.

Provided by Hebrew University of Jerusalem

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