

## Robotic Biopsy Combines MRI and US



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MRI and Ultrasound is being combined in a robot, in research being conducted at the University of Twente in the Netherlands.

The project shows promise in improving diagnosis of both breast cancer, by reducing false negatives, and muscle diseases.

Foad Sojoodi Farimani, one of the project leaders of the European research project [MRI and Ultrasound Robotic Assisted Biopsy \(MURAB\)](#) , which received funding in November 2015, explained that current techniques make it difficult to work out precisely where to take the biopsy to get the tissue needed to confirm a breast cancer diagnosis.

The researchers at the University of Twente are collaborating with universities in Verona and Vienna, industry partners and Dutch hospitals to develop a robot combining the best aspects of an MRI scan with ultrasound and a pressure sensor.

See Also: [Telerobotic Ultrasound Between New York and Chicago](#)

Potentially this would mean 15-20 minutes in the MRI machine for patients. Farimani explained that this produces an offline MRI image that can be combined during the biopsy with ultrasound online images.

He added: "One of the biggest challenges in this project is to use the precise MRI image to locate suspicious tissue in the much more indistinct ultrasound image." They hope that the technology will be suitable for all diagnoses requiring small samples of tissue for biopsy.

Source: [University of Twente](#)

Image credit: MURAB

Published on : Tue, 26 Jan 2016