

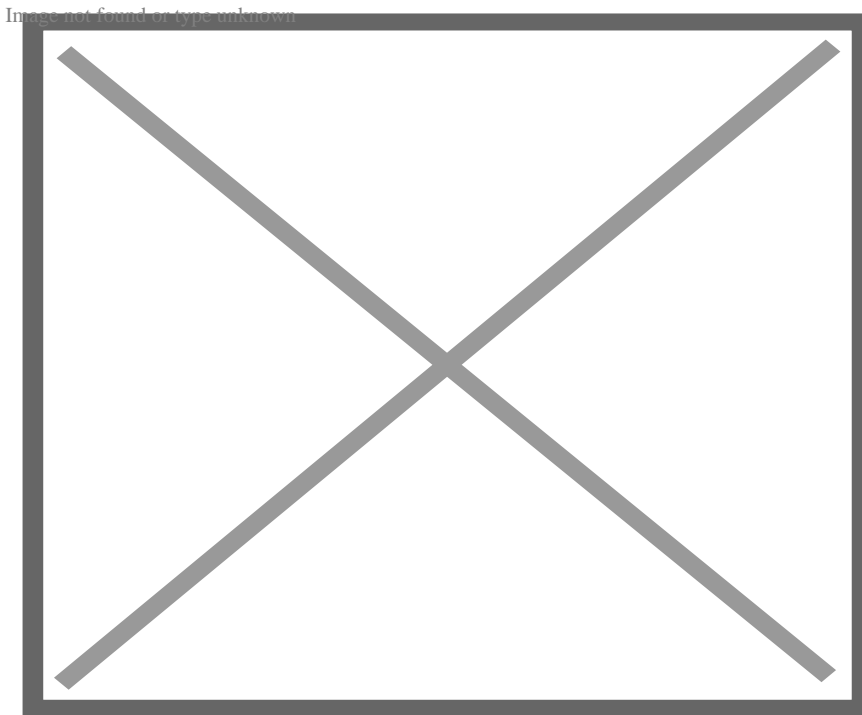
Buried landmines could be detected with genetically modified bacteria

A team of researchers at an Israeli university has successfully tested a technology using fluorescent bacteria and lasers that could become a safer system for detecting buried landmines.

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The team at Jerusalem's Hebrew University has tested mine detection using bacteria genetically modified to give off a fluorescent signal when mines – often made out plastic – are close, which can then be detected with a laser.

[T]he researchers say their approach relies on tiny amounts of vapor given off by the explosives in the mines.



These images show (top) fluorescence immediately after bacterial sensor beads were spread over the target area, where 13 samples labelled 'a' to 'm' had been buried; (below) fluorescence 22 hours later, highlighting most of the samples. Credit: Nature.

"Our field data show that engineered biosensors may be useful in a landmine detection system," said Prof Shimshon Belkin, who headed the experiment.

"For this to be possible, several challenges need to be overcome, such as enhancing the sensitivity and stability of the sensor bacteria, improving scanning speeds to cover large areas, and [making the scanning apparatus more compact so it can be used on board a light unmanned aircraft or drone](#)

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[Read the original source [here](#)]

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion, and analysis. Read full, original post: [Glowing bacteria offer hope for safe detection of 100m landmines](#)

For more background on the Genetic Literacy Project, read [GLP on Wikipedia](#)