



Romu can install erosion-minimising walls | Photo source [Wyss Institute at Harvard University](#)

## AUTONOMOUS ROBOTS BUILD EROSION-MINIMISING WALLS

 COMPUTING & TECH

### The Romu robot aids in environmental and restoration efforts in ways humans and other types of machinery cannot

Researchers at [Harvard University's Wyss Institute](#) for Biologically Inspired Engineering have developed a wheeled, autonomous robot capable of installing erosion-minimising walls into the ground. The robot, dubbed Romu, could eliminate what has been strenuous installation process for engineers.

The walls are created by inserting interlocking metal plates, called sheet piles, into the ground. Once in place, they can prevent soil from eroding after rainfall. Romu can also build dam-like structures by linking several of walls.

“This robot also could address disaster situations where walling off dangerous chemical spills or released radioactive fluids makes it difficult or impossible for humans to intervene,” [Wyss Institute Founding Director Donald Ingber](#) said.

The latest developments are rooted in the researchers' previous work on robot swarms for construction applications. The researchers have successfully tested this technology in the lab and on a beach. An eventual goal is to have swarms of the robots linked wirelessly that can collaborate on large-scale projects.

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Website: [wyss.harvard.edu](http://wyss.harvard.edu)

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## Takeaway:

Efforts in environmental protection and restoration are often hampered by the lack of necessary human labour and the ability of heavy machinery to access certain areas, according to the researchers. Advanced robots like Romu provide a much-needed tool. “One hundred years after the dawn of the heavy equipment age, we’re asking whether there might be more resilient and responsive ways to approach land management and restoration,” researcher Nathan Melenbrink said. Springwise has spotted several other developments in robotics with promising environmental benefits, including a [robotic eel that can measure water pollutant levels](#) and a [robot that can autonomously pollinate](#) some types of plants.