

## ThePage3Profile

### TRIMBOT, HERE FOR THE LAWN RUN



#### That's not your common or garden variety, er, gardener.

Scientists have created a robot gardener that can navigate itself around a lawn, prune roses and trim bushes. Trimbot uses cameras and 3D mapping technology to find its way around gardens and perform delicate tasks with cutting tools.

#### They are not letting the grass grow under their feet.

Trimbot is the result of a four-year project coordinated by researchers from the University of Edinburgh who have described their creation as "a major feat of engineering".

#### I don't need a hi-tech robot trampling all over my vegetable patch.

Your peas and beans may be very well tended to, but, the scientists believe, Trimbot could help people with mobility issues who could do with a hand looking after their gardens, and might also be useful in maintaining green spaces.

#### How does it work?

The team fitted a lawn mower made by Bosch with five pairs of cameras and a flexible robotic arm. The green-fingered, battery-powered device is programmed with a rough outline of a garden to aid navigation, and data captured by the robot's 3D cameras enable it to perform specific tasks.

#### Mind my rose bush... and my Aunt Jane is in that floral dress!

Trimbot is nothing if not precise, its inventors insist. They created



algorithms that enable the robot to compare overgrown bushes with ideal final shapes as it trims. Using a different cutting tool, Trimbot can prune roses by pinpointing the exact part of each plant's stem that should be snipped.

#### Should I expect to see Trimbot and its clones whizzing around my allotment in the near future?

Technologies developed during the project could be incorporated into Bosch's range of automated lawnmowers, says the team, which also comprises scientists from universities in the Netherlands, Germany and Switzerland. "Getting the robot to work reliably in a real garden was a major feat of engineering," said Professor Bob Fisher of the University of Edinburgh. He added that Trimbot is capable of working outdoors in changing lighting and environmental conditions.

Katie Grant