Towards adaptive robotic green plants

Janine Stocker, Aline Veillat, Fadri Furrer, Stéphane Magnenat, Francis Colas, Roland Siegwart

Aim
Allowing plants to move, to rethink their role in human societies.

Constraint
Cyborg must show interesting behaviours for visitors.

Result
Continuous operation for up to 28 hours, while alternating behaviours in an interesting way from an artistic point of view.

Task
Satisfy internal needs of water, sunlight, electrical energy.

Means
Probabilistic planning
max E(fitness) at a certain point in the future

fitness: enough of
- charge
- water
- light

future work
Currently adding noise avoidance and vision (position and distance to other robots) for group behaviours.

This work was conducted in the context of the artistic project *Pas de deux en vert et contre* of Aline Veillat funded by the Office fédéral de la culture, Sitemapping initiative.