On self-programming for phototaxic goal-seeking

Christopher A. Tucker

cartheur@pm.me

# Abstract

A generalized model of program architecture and runtime dynamics for robotic components having goal-seeking results, given the procedural problem to be solved, defined *a priori*. It is argued autonomously-engaged event-driven program execution is the algorithmic method to establish the architecture by which the runtime expresses.

# Introduction

This paper will discuss encapsulation of autonomous behavior in a high-level language, such as C#. The reason for this is to introduce programming strategies and concepts which can allow control through an interface by a high-level language, low-level functions and behaviors. The contribution of this strategy would be to allow a profusion of techniques to sophisticated users of robotics where they can enhance or modify autonomous machines with a freely available and simple to use language.

Detail each of the functional autonomous parts. You can do the write up now!

# Fundamental behaviour expressed by autonomous programs

Goal-based routines are prolific in the literature [SOURCES]. What is interesting to consider between these is programs which serve the interests of the robot, such as feeding, while allowing full autonomy in how the goal is obtained. An example which is sufficiently complex yet simple enough to be described viligently is behavior exhibited in *phototaxis*.

# Simulation of photoaxic behavior

Words.

# A method of coding autonomous behavior routines

Words.

## The coding task

Words.

## The environment for the robot

Words.

## The goal

Words.

# Discussion of autonomous programming over Bluetooth radio

Words.

# Conclusion

Words.

# References

1. C.A. Tucker, “Haden controller in C#,” *arXiv*, doi: sum, Sep. 2014.
2. C.A. Tucker, *Wireless power by magnetic resonance,* Berlin: Scholar’s Press, 2014.

# Errata

Here are where notes and possible additions are included for the paper.