Teaching objects to walk

Peter Jamieson

A set of varying objects will evolve and change their code to enhance their ability to move from point a to b

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# Analysis

A detailed description of the project from the user’s point of view. What it does, but NOT how it does it.

You should also mention here any research that you did.

If a website helped you understand how to do something you should give it a credit, that’s fine as long as you haven’t just copied code from the site into your program.

## Project objectives

A numbered list of objectives.

This shows what your project will do.

This is needed to show that your project has sufficient complexity to be of “***A level standard***”.

There can be optional objectives at the end which you will only do if there is enough time. But your project needs to ‘complex enough’ without these extra objectives.

* Create Leg and Joint objects
* Create a graphics program that makes the legs rotate on an internal clock at a set angle lock connected to joints
* Add gravity to the object
* Create flat floor
* Make it so object will push itself up with legs when legs rotate on ground
* Create functional object that can stand up and move-ish
* Make the floor and object into a side scroller
* Touch up until you have an object that can move along the floor
* Now make properties of legs and joints random
* Create 10 objects and measure the distance they move
* Implement genetic algorithm to objects so create offspring that are then also simulated
* Create a way to skip through simulation
* Make gui so that you can simulate offspring, and skip generations and look at best object
* If all completed before deadline, make it so user can design x amount of species to start
* Touch up gui and polish

# Design

In this section you explain how your program works.

For some parts of your project it will be a good idea to write the design before you write the code but other times you’ll write the design after the code.

It is important that you fully explain the interesting parts in your program. This is your chance to convince the moderator that you wrote and fully understand the code.

# Implementation

Here you will paste your code. It’s probably best to leave this to the end.

You will need to put page references in other parts of the document to show where the code you are talking about appears in the program.

# Testing

Enough but not too much.

# Evaluation

How was it for you and your users?

What would you do differently if there was a next time?