

Advanced Physics

Assignment 3

To be submitted in pairs of two students

Springs

In the Cyclone engine, create a particle/springs system that **simulates and visualizes** a system resembling real life physics.

Requirements:

- at least 2 springs
- at least 2 of these having different stiffness
- at least 1 fixed point
- at least 1 (point) mass (unfixed), where you should draw an object
- user input to manipulate at least 2 dimensions (of the same or different points)
- include a description of what the system you have built resembles in real life (try to write a couple of lines of description, a bit more than: "a very large rock suspended from two rubber bands", include some quantitative measures of size and/or weight)

Important:

- You can use the standard GLUT visualization also used by the author
- For example code you can look at the 'bridge' sample in Cyclone
- You are however not allowed to use the sample code as a starting point for your assignment, you have to build your own project from scratch, the way that you figured out in Assignment 1
- Take care to document your code: make sure there are enough comments for me to see the steps you have taken to solve the assignment!
(You are allowed to include a small report (max. 1 page) if you prefer not to write long portions of comments in the code, although the latter is recommended)

Deadline: 6-3-2014 23:59

**.zip with source code and Windows or Mac binary,
via VLO Dropbox -> Stephan van der Feest**

Attn.: Include both your names and student numbers: Any claims of cooperation will only be admitted if both names are present in the submission