Yuhua Mai, Susan Zhang

CS 308

September 11, 2013

Springies Plan

|  |  |  |  |
| --- | --- | --- | --- |
| **Class name** | **Function** | **Relation to other Classes** | **Potential Methods** |
| Main | Initializes the program | Calls Springies | initialize() |
|  |  |  |  |
| Parser | Reads and parses XML file | Sends object information to Springies | loadFile() |
|  |  |  |  |
| World/Springies | Creates and updates sprites | Creates new objects based on output from parser | clearWorld() |
|  |  |  |  |
| Mass | Moves in response to forces | Extends PhysicalObjectCircle |  |
| Fixed Mass | Stationary mass | Extends Mass |  |
| Spring | Exerts force in opposite direction of force applied to it | Extends PhysicalObject | reactionForce() |
| Muscle | Expands and contracts based on amplitude of harmonic motion | Extends PhysicalObject | actionForce() |
|  |  |  |  |
| Force | Abstract class that bridges Vec2 class and various forces | Extends Vec2 | calculateForce() |
| Gravity | Causes objects to accelerate in downward | Extends Force |  |
| Viscosity | Resists movement of object proportional and opposite to object’s velocty | Extends Force |  |
| Center of mass | Attracts/repels masses towards/from center of mass | Extends Force |  |
| Wall repulsion | Produces force in opposite direction of wall contact | Extends Force |  |