Architecture Modifications
1. Circuit Package

We introduced a circuit package that contains every class related to a signal.
These classes are logic connectors AND, OR, Not, Constant and the interface Signal.
We decided to created this separated package because these classes all have the same purpose : design circuits.

2.Direction

This class is an Enumeration and is contained in the platform.util package.
It is useful to specify the direction the Slime will take (see update and interact methods in Slime class). The direction is either left or right.

3.Character:

This abstract class extends actor , extended by player and slime, in order to force them to redefine the getHealth() method.

Additional Elements

1. Actor constructors

We introduced three constructors in the abstract class actor because almost every actor had to verify in his constructor that his box, velocity or position given in parameter are not null. Introducing these constructors avoids redundancy.
We also had to define the default constructor in Actor because some classes that inherits from actor do not use the constructor described above (for example Overlay, Limits and Level).

2. Distinction between BinaryFireball and Fireball

The binary fireball is used for "traps", binary stands for being activated or desactivated by the signal.(press E). In BinaryFireball's constructor, the position and velocity parameters are registered in “initialPosition” and “initialVelocity” attributes. Every time we switch the signal off, the binaryfireball's position and velocity variables are set to their initial value.

Fireball extends BinaryFireball because it behaves like a binaryFireball that always has its signal on.

3. Distinction between lever and binaryLever

Binary lever doesn't have a timer and can be switched on and off by pressing E. Lever extends binaryLever. When the lever is activated by pressing E, its signal is Activated during a certain duration.

4.Particle
Particle is an Actor that is present during a certain duration in the world. It's transparency rises with time.

5. Slime
Enemy that defends a zone around their initial position. The player takes physical damages when he

touches a slime. The zone to defend is represented by a surrounding Box that has the following dimensions (getBox().center, 3 ,3).

6. Spike effects

Our spikes give Physical and Air damage. The Air damage are useful to repulse the player when he touches the spikes.