# KLay Force

| Project Overview |
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KLay Force is an implementation of the force-based layout approach where edges are regarded as springs pulling together the nodes they connect, while unconnected nodes are pushed apart from one another. The objective is to compute a state where this physical system reaches an equilibrium.

This page describes the available layout options as well as the general architecture of the algorithm.

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## Layout Options

**ToDo**

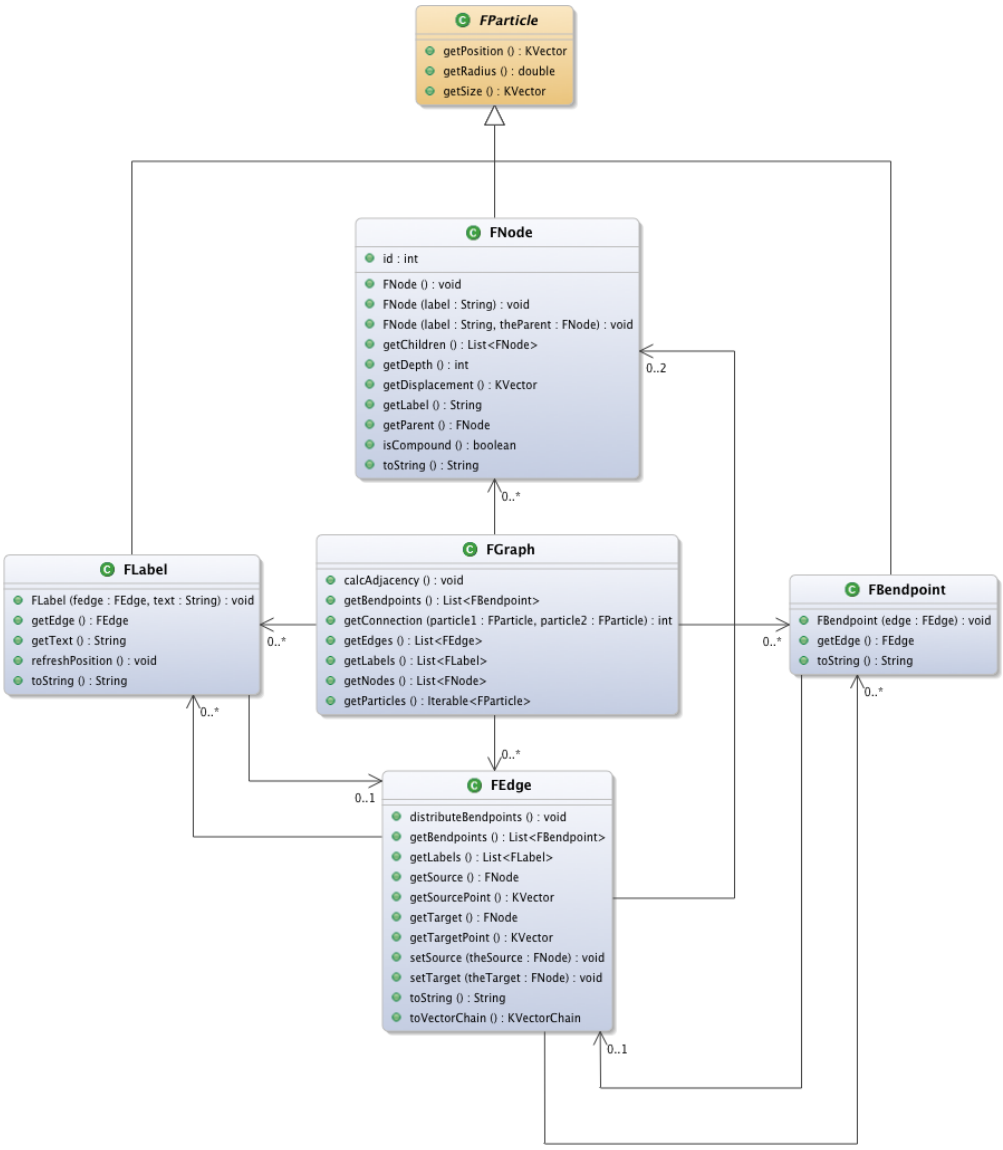
List available layout options.

## Architecture

The architecture basically consists of two chunks: the graph model and the actual implementation of the algorithm.

### Graph Model

KLay Force uses a custom, lightweight graph model whose root is the `FGraph` class. `FNode` instances are connected through `FEdge` instances that, to be routed properly, can have `FBendpoint` instances. Edges and nodes can have a number of `FLabel` instances. Nodes, labels, and bend points are considered `FParticles` since they exert forces on each other. The following is a class diagram of the basic graph model:




## Algorithm

**ToDo**

Describe architecture.