

Ball

- position : double
- velocity : double

+ Ball()
+ get_position() : double
+ set_position(double) : void
+ get_velocity() : double
+ set_velocity(double)
+ push(direction:Push, velocity:double) : void

Beam

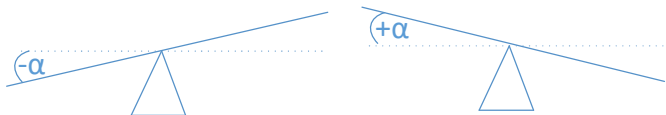
- length : double
- angle : double
- ang_velocity : double

+ Beam()
+ Beam(length:double, angle:double, ang_velocity:double)
+ get_angle() : double
+ set_angle(desired_angle:double, time_passed:uint_fast64_t)

<<Enumeration>>

Push

-left
-right



Controller

+ ball : Ball
+ beam : Beam
- kp : double
- ki : double
- kd : double
- desired_pos : double

+ Controller(Ball, Beam, double, double, double)
+ control(position:double) : double desired_angle
+ update(double: desired_angle)
+ get_kp() const: double
+ set_kp(kp: double)
+ get_ki() const: double
+ set_ki(ki: double)
+ get_kd() const: double
+ set_kd(kd: double)

