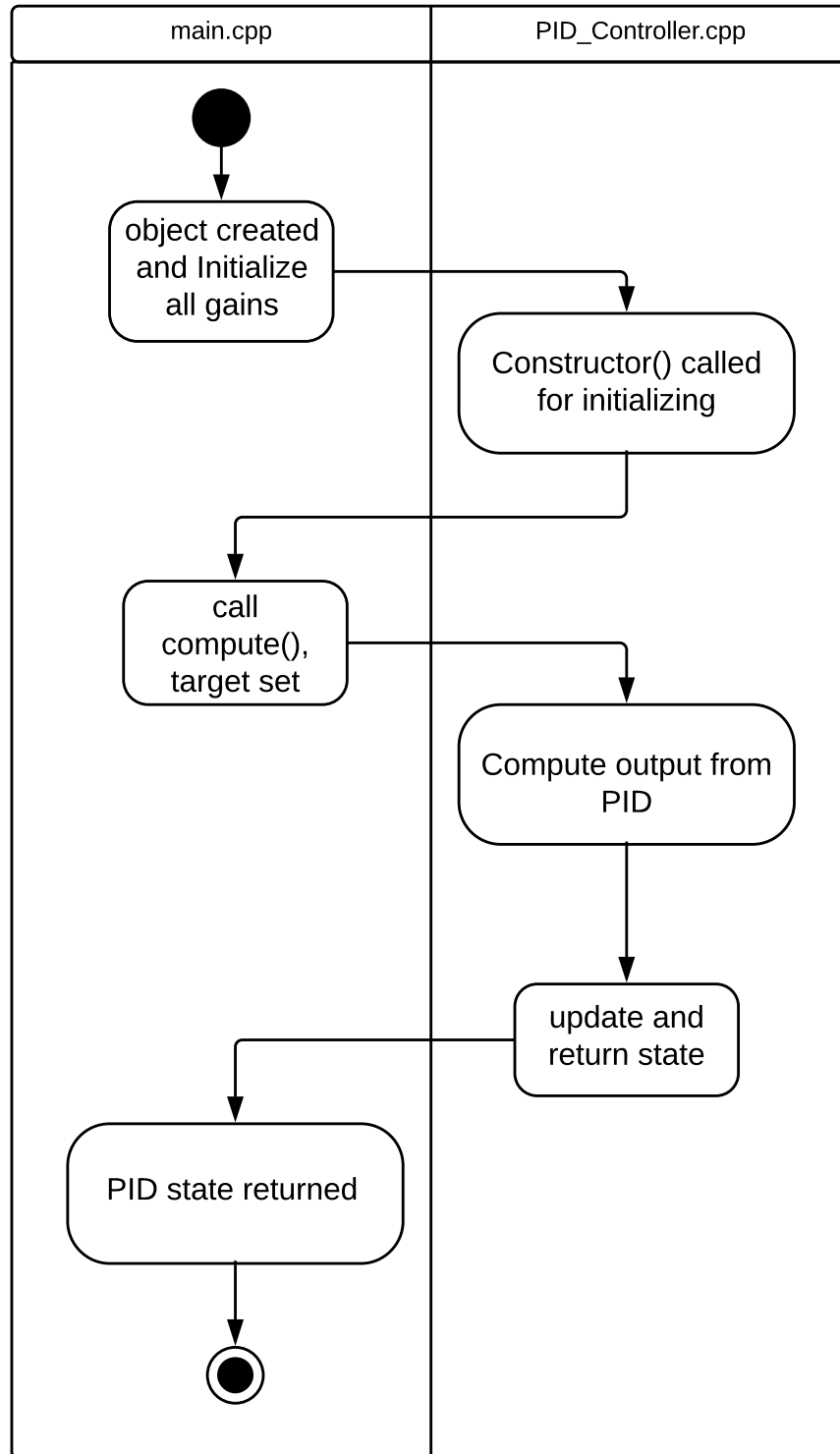# PID Controller Activity Diagram

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PID Controller Class Diagram

main.cpp	PID_Controller.cpp

object created
and Initialize
all gains

Constructor() called
for initializing

call
compute(),
target set

Compute output from
PID

update and
return state

PID state returned

Controller

- kP: double
- kI: double
- kD: double
- error: double
- controlOutput: double
- output: double
- initialized: bool
-prevError: double
-intgError: double
-currentState: double

+Controller(void):void
+isInitialized(void):bool
+Controller(double,double,double):void
+compute(double,double):void
+getkP(void):double
+setkP(double):void
+getkI(void):double
+setkI(double):void
+getkD(void):double
+setkD(double):void
+returnState(double):void