Class Diagram

```
pidController
                   - double kp
                   - double ki:
                   - double kd:
                   - double dt

    -double intgrError

+<<constructor>> pidController (double kiValue,
doublekpValue, double kdValue, double dtValue)

    + calulateVelocity (double requiredVelocity,

              double actualVelocity)
               +getIntegralError()
              +setKpGain(double k)
              +setKiGain(double k)
              +setKdGain(double k)
              +setDtVal(double dt)
                  +qetKpGain()
                  +getKiGain()
                  +getKdGain()
                   +getDtVal()
              +resetIntegralError()
```