

PIDController

- Kp: vector<double>
- Ki: vector<double>
- Kd: vector<double>
- targetSetPoint: vector<double>
- finalVelocity: vector<double>
- actualVelocity: vector<double>
- errorSum: double
- lastVelocity: double
- maxLimitVel:double
- maxLimitPos: vector<double>

- +changeGain(vector<double>,vector<double>,vector<double>):
none
- +computeOutput(vector<double>):vector<double>
- +changeSetPoint(vector<double>):vector<double>
- +updateErrorSum(double):double
- +getKpGain():vector<double>
- +setKpGain(vector<double>):void
- +getKiGain():vector<double>
- +setKiGain(vector<double>):void
- +getKdGain():vector<double>
- +setKdGain(vector<double>):void
- +getActualVelocity():vector<double>
- +setActualVelocity(vector<double>):void
- +getMaxLimitVel():vector<double>
- +setMaxLimitVel(vector<double>):void
- +getMaxLimitPos():vector<double>
- +setMaxLimitPos(vector<double>):void
- +getTargetSetPoint():vector<double>
- +setTargetSetPoint(vector<double>):void
- +resetSystem():string