

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