ZcmdMotor Library

Generated by Doxygen 1.8.14

Contents

1 Data Structure Index

1.1 Data Structures

Here are the data structures with brief descriptions:

2 File Index

2.1 File List

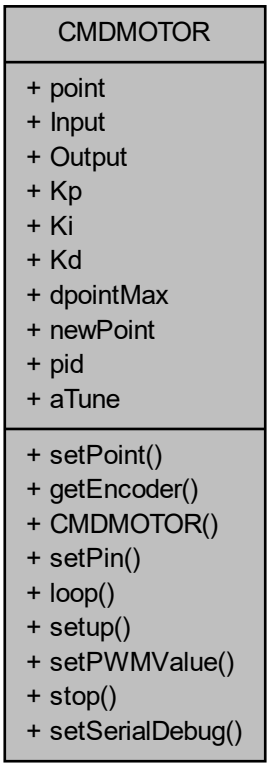
Here is a list of all files with brief descriptions:

3 Data Structure Documentation

3.1 CMDMOTOR Class Reference

`#include <ZcmdMotor.h>`

Collaboration diagram for CMDMOTOR:



Public Member Functions

- void setPoint (int point)
- ZEncoder ∗ getEncoder ()
- CMDMOTOR (int INCA, int INCB, int MP, int MM)
- void setPin (int INCA, int INCB, int MP, int MM)
- void loop ()
- void setup ()
- void setPWMValue (signed int td)
- void stop ()
- void setSerialDebug (Uart ∗SerialDebug)

Data Fields

- double point
- double Input
- double Output
- double Kp
- double Ki
- double Kd
- double dpointMax
- double newPoint
- PID * pid
- PID_ATune * aTune

3.1.1 Detailed Description

Definition at line 15 of file ZcmdMotor.h.

3.1.2 Constructor & Destructor Documentation

3.1.2.1 CMDMOTOR()

```
CMDMOTOR::CMDMOTOR (
            int INCA,
            int INCB,
            int MP,
            int MM )
```

Definition at line 67 of file ZCmdMotor.cpp.

References aTune, dpointMax, Input, Kd, Ki, Kp, Output, pid, and point.

3.1.3 Member Function Documentation

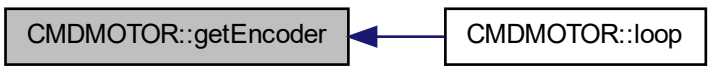
3.1.3.1 getEncoder()

```
ZEncoder * CMDMOTOR::getEncoder ( )
```

Definition at line 115 of file ZCmdMotor.cpp.

Referenced by loop().

Here is the caller graph for this function:



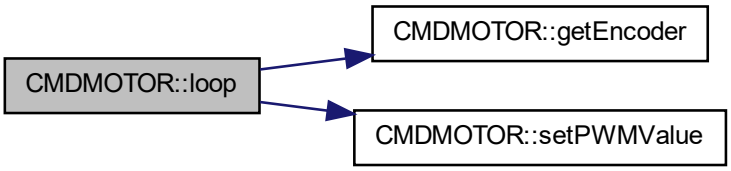
3.1.3.2 loop()

```
void CMDMOTOR::loop ( )
```

Definition at line 205 of file ZCmdMotor.cpp.

References aTune, dpointMax, getEncoder(), Input, Kd, Ki, Kp, MIN, newPoint, Output, pid, point, and setPWM↩ Value().

Here is the call graph for this function:



3.1.3.3 setPin()

```
void CMDMOTOR::setPin (
             int INCA,
             int INCB,
             int MP,
             int MM )
```

Definition at line 106 of file ZCmdMotor.cpp.

3.1.3.4 setPoint()

```
void CMDMOTOR::setPoint (
             int point )
```

Definition at line 17 of file ZCmdMotor.cpp.

References dpointMax, MIN, newPoint, and point.

3.1.3.5 setPWMValue()

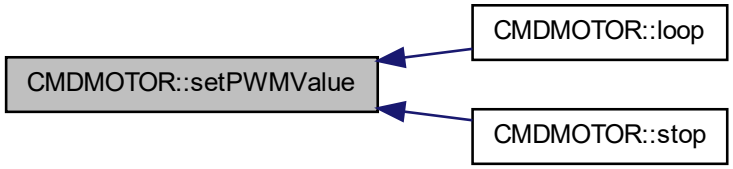
```
void CMDMOTOR::setPWMValue (
            signed int td )
```

Definition at line 165 of file ZCmdMotor.cpp.

References Output, and PWMMAX.

Referenced by loop(), and stop().

Here is the caller graph for this function:



3.1.3.6 setSerialDebug()

```
void CMDMOTOR::setSerialDebug (
            Uart * SerialDebug )
```

Definition at line 13 of file ZCmdMotor.cpp.

3.1.3.7 setup()

```
void CMDMOTOR::setup ( )
```

Definition at line 118 of file ZCmdMotor.cpp.

References pid.

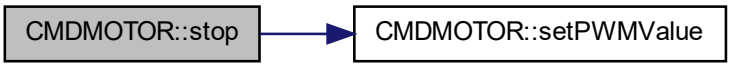
3.1.3.8 stop()

```
void CMDMOTOR::stop ( )
```

Definition at line 157 of file ZCmdMotor.cpp.

References newPoint, point, and setPWMValue().

Here is the call graph for this function:



3.1.4 Field Documentation

3.1.4.1 aTune

```
PID_ATune* CMDMOTOR::aTune
```

Definition at line 30 of file ZcmdMotor.h.

Referenced by CMDMOTOR(), and loop().

3.1.4.2 dpointMax

```
double CMDMOTOR::dpointMax
```

Definition at line 27 of file ZcmdMotor.h.

Referenced by CMDMOTOR(), loop(), and setPoint().

3.1.4.3 Input

```
double CMDMOTOR::Input
```

Definition at line 23 of file ZcmdMotor.h.

Referenced by CMDMOTOR(), and loop().

3.1.4.4 Kd

```
double CMDMOTOR::Kd
```

Definition at line 24 of file ZcmdMotor.h.

Referenced by CMDMOTOR(), and loop().

3.1.4.5 Ki

```
double CMDMOTOR::Ki
```

Definition at line 24 of file ZcmdMotor.h.

Referenced by CMDMOTOR(), and loop().

3.1.4.6 Kp

```
double CMDMOTOR::Kp
```

Definition at line 24 of file ZcmdMotor.h.

Referenced by CMDMOTOR(), and loop().

3.1.4.7 newPoint

```
double CMDMOTOR::newPoint
```

Definition at line 28 of file ZcmdMotor.h.

Referenced by loop(), setPoint(), and stop().

3.1.4.8 Output

```
double CMDMOTOR::Output
```

Definition at line 23 of file ZcmdMotor.h.

Referenced by CMDMOTOR(), loop(), and setPWMValue().

3.1.4.9 pid

```
PID* CMDMOTOR::pid
```

Definition at line 29 of file ZcmdMotor.h.

Referenced by CMDMOTOR(), loop(), and setup().

3.1.4.10 point

```
double CMDMOTOR::point
```

Definition at line 23 of file ZcmdMotor.h.

Referenced by CMDMOTOR(), loop(), setPoint(), and stop().

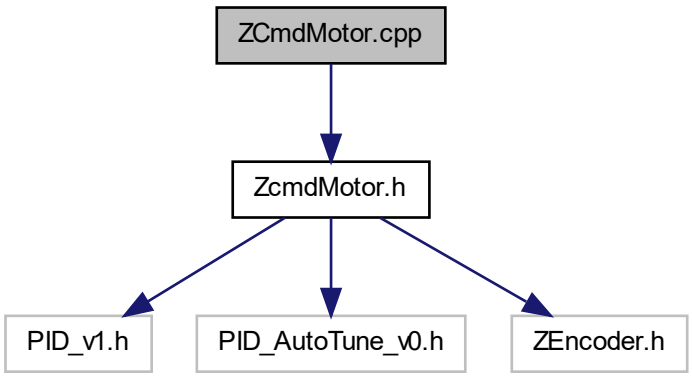
The documentation for this class was generated from the following files:

- ZcmdMotor.h
- ZCmdMotor.cpp

4 File Documentation

4.1 ZCmdMotor.cpp File Reference

```
#include <ZcmdMotor.h>
```
Include dependency graph for ZCmdMotor.cpp:



Macros

- #define PWMMAX 4096

4.1.1 Macro Definition Documentation

4.1.1.1 PWMMAX

```
#define PWMMAX 4096
```

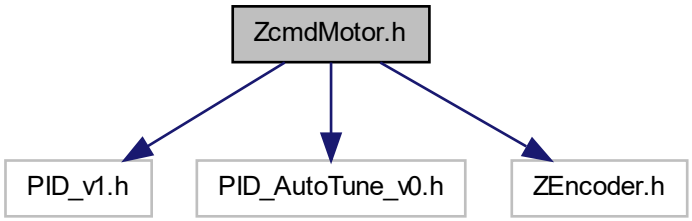
Definition at line 155 of file ZCmdMotor.cpp.

Referenced by CMDMOTOR::setPWMValue().

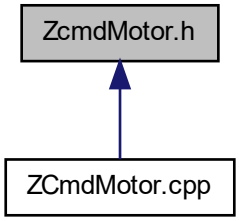
4.2 ZcmdMotor.h File Reference

```
#include <PID_v1.h>
#include <PID_AutoTune_v0.h>
#include <ZEncoder.h>
```

Include dependency graph for ZcmdMotor.h:



This graph shows which files directly or indirectly include this file:



Data Structures

- class CMDMOTOR

Macros

- #define MIN(a, b) ((a<b)?a:b)
- #define MAX(a, b) ((a<b)?b:a)

4.2.1 Macro Definition Documentation

4.2.1.1 MAX

```
#define MAX(
              a,
              b ) ((a<b)?b:a)
```

Definition at line 13 of file ZcmdMotor.h.

4.2.1.2 MIN

```
#define MIN(
              a,
              b ) ((a<b)?a:b)
```

Definition at line 12 of file ZcmdMotor.h.

Referenced by CMDMOTOR::loop(), and CMDMOTOR::setPoint().

Index