ZEncoder Library

Generated by Doxygen 1.8.14

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2.1 File List

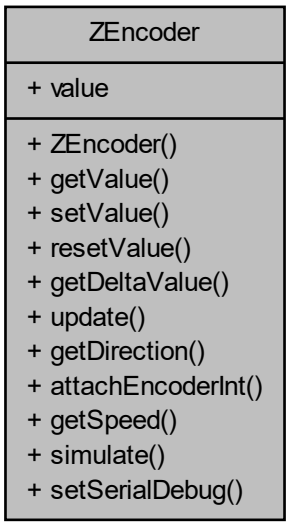
Here is a list of all files with brief descriptions:

3 Data Structure Documentation

3.1 ZEncoder Class Reference

`#include <ZEncoder.h>`

Collaboration diagram for ZEncoder:



Public Member Functions

- ZEncoder (int pinA, int pinB, eMode mymode, void(∗optionalCallBack)(int))
- signed int getValue ()
- void setValue (int newValue)
- void resetValue ()
- signed int getDeltaValue ()
- void update ()
- int getDirection ()
- void attachEncoderInt (ZEncodervoidFuncPtr userFunc)
- signed int getSpeed (void)
- void simulate (signed int value)
- void setSerialDebug (Uart ∗SerialDebug)

Data Fields

- volatile int value

3.1.1 Detailed Description

Definition at line 36 of file ZEncoder.h.

3.1.2 Constructor & Destructor Documentation

3.1.2.1 ZEncoder()

```
ZEncoder::ZEncoder (
            int pinA,
            int pinB,
            eMode mymode,
            void(*)(int) optionalCallBack )
```

This will enumerate a GroveEncoder on a particular pin. You can provide an optional callback, or poll the "get↩ Value()" API. mode equal to QUARTER count 4 for a cycle(1 per phase), equal to full it count 1 per cycle(less accurate, but support high frequency).

Definition at line 66 of file ZEncoder.cpp.

References setValue().

Here is the call graph for this function:

3.1.3 Member Function Documentation

3.1.3.1 attachEncoderInt()

```
void ZEncoder::attachEncoderInt (
            ZEncodervoidFuncPtr userFunc )
```

Definition at line 133 of file ZEncoder.cpp.

References QUARTER.

3.1.3.2 getDeltaValue()

```
signed int ZEncoder::getDeltaValue ( )
```

Definition at line 42 of file ZEncoder.cpp.

References value.

3.1.3.3 getDirection()

```
int ZEncoder::getDirection ( )
```

give direction since last getDeltaValue()

Definition at line 6 of file ZEncoder.cpp.

References CLOCKWISE, COUNTERCLOCKWISE, UNCERTAIN, and value.

3.1.3.4 getSpeed()

```
signed int ZEncoder::getSpeed (
            void  )
```

Return the speed of the encoder.

Calculate the speed (steps per second) for the encoder. The sampling period is set using the setPeriod() method. If the encoder is used to enter numbers or scan through menus, the speed can be used to accelerate the display (eg, skip larger values for each click).

Returns

The speed in clicks per second.

3.1.3.5 getValue()

```
signed int ZEncoder::getValue ( )
```

Definition at line 13 of file ZEncoder.cpp.

References value.

3.1.3.6 resetValue()

```
void ZEncoder::resetValue ( )
```

Definition at line 50 of file ZEncoder.cpp.

References setValue().

Here is the call graph for this function:

3.1.3.7 setSerialDebug()

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

Definition at line 102 of file ZEncoder.cpp.

3.1.3.8 setValue()

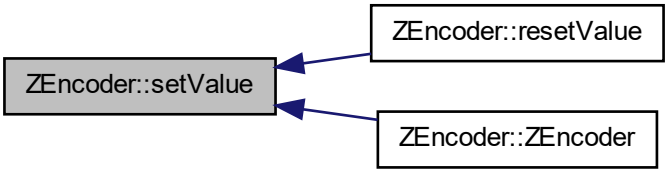
```
void ZEncoder::setValue (
            int newValue )
```

Definition at line 54 of file ZEncoder.cpp.

References value.

Referenced by resetValue(), and ZEncoder().

Here is the caller graph for this function:



3.1.3.9 simulate()

```
void ZEncoder::simulate (
            signed int value )
```

Definition at line 109 of file ZEncoder.cpp.

References value.

3.1.3.10 update()

```
void ZEncoder::update (
            void  )
```

Definition at line 233 of file ZEncoder.cpp.

References QUARTER, and value.

3.1.4 Field Documentation

3.1.4.1 value

```
volatile int ZEncoder::value
```

Definition at line 63 of file ZEncoder.h.

Referenced by getDeltaValue(), getDirection(), getValue(), setValue(), simulate(), and update().

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

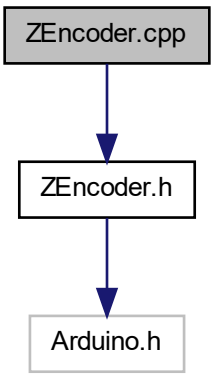
- ZEncoder.h
- ZEncoder.cpp

4 File Documentation

4.1 ZEncoder.cpp File Reference

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

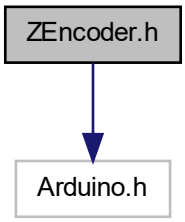
Include dependency graph for ZEncoder.cpp:



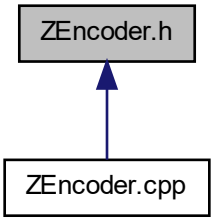
4.2 ZEncoder.h File Reference

```
#include <Arduino.h>
```

Include dependency graph for ZEncoder.h:



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



Data Structures

- class ZEncoder

Macros

- #define ENABLE_SPEED 1

Typedefs

- typedef void(∗ ZEncodervoidFuncPtr) (void)

Enumerations

- enum Rotation { CLOCKWISE = 2, COUNTERCLOCKWISE = 3, UNCERTAIN = 4 }
- enum eMode { QUARTER = 0, FULL = 1 }

4.2.1 Macro Definition Documentation

4.2.1.1 ENABLE_SPEED

```
#define ENABLE_SPEED 1
```

Definition at line 33 of file ZEncoder.h.

4.2.2 Typedef Documentation

4.2.2.1 ZEncodervoidFuncPtr

```
typedef void(* ZEncodervoidFuncPtr) (void)
```

Definition at line 35 of file ZEncoder.h.

4.2.3 Enumeration Type Documentation

4.2.3.1 eMode

```
enum eMode
```

Enumerator

QUARTER	
FULL	

Definition at line 30 of file ZEncoder.h.

4.2.3.2 Rotation

```
enum Rotation
```

Enumerator

CLOCKWISE	
COUNTERCLOCKWISE	
UNCERTAIN	

Definition at line 26 of file ZEncoder.h.

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