

hitchBOT

Generated by Doxygen 1.8.6

Sun Mar 2 2014 11:24:29



# Contents

<b>1</b>	<b>Documentation</b>	<b>1</b>
<b>2</b>	<b>hitchBOT</b>	<b>3</b>
<b>3</b>	<b>File Index</b>	<b>5</b>
3.1	File List . . . . .	5
<b>4</b>	<b>File Documentation</b>	<b>7</b>
4.1	hitchBOT/documentation/README.md File Reference . . . . .	7
4.2	hitchBOT/README.md File Reference . . . . .	7
4.3	hitchBOT/old code/GPS-shield-RMC-test-sketch-master/GPS-shield-RMC-test-sketch-master/GPSTest- _RMC/GPSTest_RMC.ino File Reference . . . . .	7
4.3.1	Macro Definition Documentation . . . . .	8
4.3.1.1	BUFFSIZ . . . . .	8
4.3.1.2	GPSRATE . . . . .	8
4.3.1.3	powerpin . . . . .	8
4.3.2	Function Documentation . . . . .	8
4.3.2.1	loop . . . . .	8
4.3.2.2	parsedecimal . . . . .	8
4.3.2.3	readline . . . . .	8
4.3.2.4	setup . . . . .	8
4.3.3	Variable Documentation . . . . .	9
4.3.3.1	buffer . . . . .	9
4.3.3.2	buffidx . . . . .	9
4.3.3.3	date . . . . .	9
4.3.3.4	groundspeed . . . . .	9
4.3.3.5	hour . . . . .	9
4.3.3.6	latdir . . . . .	9
4.3.3.7	latitude . . . . .	9
4.3.3.8	longdir . . . . .	9

4.3.3.9	longitude	9
4.3.3.10	minute	9
4.3.3.11	month	9
4.3.3.12	mySerial	10
4.3.3.13	parseptr	10
4.3.3.14	second	10
4.3.3.15	status	10
4.3.3.16	trackangle	10
4.3.3.17	year	10
4.4	hitchBOT/old code/matrixdemo/matrixdemo.ino File Reference	10
4.4.1	Macro Definition Documentation	11
4.4.1.1	CS	11
4.4.1.2	CS2	11
4.4.1.3	DATA	11
4.4.1.4	WR	11
4.4.2	Function Documentation	11
4.4.2.1	loop	11
4.4.2.2	setup	11
4.4.3	Variable Documentation	11
4.4.3.1	matrix	11
4.5	hitchBOT/old code/scrolldemo/scrolldemo.ino File Reference	11
4.5.1	Macro Definition Documentation	12
4.5.1.1	CS	12
4.5.1.2	CS2	12
4.5.1.3	DATA	12
4.5.1.4	WR	12
4.5.2	Function Documentation	12
4.5.2.1	loop	12
4.5.2.2	setup	12
4.5.3	Variable Documentation	12
4.5.3.1	matrix	12
4.6	hitchBOT/old code/sketch_jul22a/sketch_jul22a.ino File Reference	13
4.6.1	Function Documentation	13
4.6.1.1	clearBufferArray	13
4.6.1.2	GPRS	13
4.6.1.3	loop	13
4.6.1.4	setup	13

4.6.2	Variable Documentation	13
4.6.2.1	buffer	13
4.6.2.2	count	13
<b>Index</b>		<b>14</b>



## Chapter 1

# Documentation

View the documentation for this project at the following links:

- [LaTeX](#)
- [HTML](#)

This documentation is automatically generated with [Doxygen](#)

Doxyfile is a project which when used with Doxygen will autogenerate the documentation for this project.





## **Chapter 2**

# **hitchBOT**



## Chapter 3

# File Index

### 3.1 File List

Here is a list of all files with brief descriptions:

hitchBOT/old code/GPS-shield-RMC-test-sketch-master/GPS-shield-RMC-test-sketch-master/GPSTest_RM- C/GPSTest_RMC.ino . . . . .	7
hitchBOT/old code/matrixdemo/matrixdemo.ino . . . . .	10
hitchBOT/old code/scrolldemo/scrolldemo.ino . . . . .	11
hitchBOT/old code/sketch_jul22a/sketch_jul22a.ino . . . . .	13



## Chapter 4

# File Documentation

### 4.1 hitchBOT/documentation/README.md File Reference

### 4.2 hitchBOT/README.md File Reference

### 4.3 hitchBOT/old code/GPS-shield-RMC-test-sketch-master/GPS-shield-RMC-test-sketch-master/GPStest\_RMC/GPStest\_RMC.ino File Reference

```
#include "WProgram.h"
#include "NewSoftSerial.h"
```

#### Macros

- #define `powerpin` 4
- #define `GPSRATE` 4800
- #define `BUFFSIZ` 90

#### Functions

- void `setup` ()
- uint32\_t `parsedecimal` (char \*str)
- void `readline` (void)
- void `loop` ()

#### Variables

- NewSoftSerial `mySerial` = NewSoftSerial(2, 3)
- char `buffer` [`BUFFSIZ`]
- char \* `parseptr`
- char `buffidx`
- uint8\_t `hour`
- uint8\_t `minute`

- uint8\_t [second](#)
- uint8\_t [year](#)
- uint8\_t [month](#)
- uint8\_t [date](#)
- uint32\_t [latitude](#)
- uint32\_t [longitude](#)
- uint8\_t [groundspeed](#)
- uint8\_t [trackangle](#)
- char [latdir](#)
- char [longdir](#)
- char [status](#)

### 4.3.1 Macro Definition Documentation

#### 4.3.1.1 #define BUFFSIZ 90

Definition at line 32 of file GPStest\_RMC.ino.

#### 4.3.1.2 #define GPSRATE 4800

Definition at line 27 of file GPStest\_RMC.ino.

#### 4.3.1.3 #define powerpin 4

Definition at line 23 of file GPStest\_RMC.ino.

### 4.3.2 Function Documentation

#### 4.3.2.1 void loop ( )

Definition at line 100 of file GPStest\_RMC.ino.

#### 4.3.2.2 uint32\_t parsedecimal ( char \* *str* )

Definition at line 68 of file GPStest\_RMC.ino.

#### 4.3.2.3 void readline ( void )

Definition at line 81 of file GPStest\_RMC.ino.

#### 4.3.2.4 void setup ( )

Definition at line 47 of file GPStest\_RMC.ino.

---

### 4.3.3 Variable Documentation

#### 4.3.3.1 char buffer[BUFSIZ]

Definition at line 36 of file GPStest\_RMC.ino.

#### 4.3.3.2 char buffidx

Definition at line 38 of file GPStest\_RMC.ino.

#### 4.3.3.3 uint8\_t date

Definition at line 41 of file GPStest\_RMC.ino.

#### 4.3.3.4 uint8\_t groundspeed

Definition at line 43 of file GPStest\_RMC.ino.

#### 4.3.3.5 uint8\_t hour

Definition at line 41 of file GPStest\_RMC.ino.

#### 4.3.3.6 char latdir

Definition at line 44 of file GPStest\_RMC.ino.

#### 4.3.3.7 uint32\_t latitude

Definition at line 42 of file GPStest\_RMC.ino.

#### 4.3.3.8 char longdir

Definition at line 44 of file GPStest\_RMC.ino.

#### 4.3.3.9 uint32\_t longitude

Definition at line 42 of file GPStest\_RMC.ino.

#### 4.3.3.10 uint8\_t minute

Definition at line 41 of file GPStest\_RMC.ino.

#### 4.3.3.11 uint8\_t month

Definition at line 41 of file GPStest\_RMC.ino.

#### 4.3.3.12 `NewSoftSerial mySerial = NewSoftSerial(2, 3)`

Definition at line 19 of file GPStest\_RMC.ino.

#### 4.3.3.13 `char* parseptr`

Definition at line 37 of file GPStest\_RMC.ino.

#### 4.3.3.14 `uint8_t second`

Definition at line 41 of file GPStest\_RMC.ino.

#### 4.3.3.15 `char status`

Definition at line 45 of file GPStest\_RMC.ino.

#### 4.3.3.16 `uint8_t trackangle`

Definition at line 43 of file GPStest\_RMC.ino.

#### 4.3.3.17 `uint8_t year`

Definition at line 41 of file GPStest\_RMC.ino.

## 4.4 hitchBOT/old code/matrixdemo/matrixdemo.ino File Reference

```
#include "HT1632.h"
```

### Macros

- #define `DATA` 2
- #define `WR` 3
- #define `CS` 4
- #define `CS2` 5

### Functions

- void `setup` ()
- void `loop` ()

### Variables

- HT1632LEDMatrix `matrix` = HT1632LEDMatrix(`DATA`, `WR`, `CS`, `CS2`)



#### 4.4.1 Macro Definition Documentation

##### 4.4.1.1 `#define CS 4`

Definition at line 5 of file matrixdemo.ino.

##### 4.4.1.2 `#define CS2 5`

Definition at line 6 of file matrixdemo.ino.

##### 4.4.1.3 `#define DATA 2`

Definition at line 3 of file matrixdemo.ino.

##### 4.4.1.4 `#define WR 3`

Definition at line 4 of file matrixdemo.ino.

#### 4.4.2 Function Documentation

##### 4.4.2.1 `void loop ( )`

Definition at line 21 of file matrixdemo.ino.

##### 4.4.2.2 `void setup ( )`

Definition at line 13 of file matrixdemo.ino.

#### 4.4.3 Variable Documentation

##### 4.4.3.1 `HT1632LEDMatrix matrix = HT1632LEDMatrix(DATA, WR, CS, CS2)`

Definition at line 11 of file matrixdemo.ino.

### 4.5 hitchBOT/old code/scrolldemo/scrolldemo.ino File Reference

```
#include "HT1632.h"
```

#### Macros

- `#define DATA 2`
- `#define WR 3`
- `#define CS 4`
- `#define CS2 5`

## Functions

- void `setup` ()
- void `loop` ()

## Variables

- HT1632LEDMatrix `matrix` = HT1632LEDMatrix(`DATA`, `WR`, `CS`, `CS2`)

### 4.5.1 Macro Definition Documentation

#### 4.5.1.1 `#define CS 4`

Definition at line 5 of file `scrolldemo.ino`.

#### 4.5.1.2 `#define CS2 5`

Definition at line 6 of file `scrolldemo.ino`.

#### 4.5.1.3 `#define DATA 2`

Definition at line 3 of file `scrolldemo.ino`.

#### 4.5.1.4 `#define WR 3`

Definition at line 4 of file `scrolldemo.ino`.

### 4.5.2 Function Documentation

#### 4.5.2.1 `void loop ( )`

Definition at line 18 of file `scrolldemo.ino`.

#### 4.5.2.2 `void setup ( )`

Definition at line 13 of file `scrolldemo.ino`.

### 4.5.3 Variable Documentation

#### 4.5.3.1 `HT1632LEDMatrix matrix = HT1632LEDMatrix(DATA, WR, CS, CS2)`

Definition at line 11 of file `scrolldemo.ino`.

## 4.6 hitchBOT/old code/sketch\_jul22a/sketch\_jul22a.ino File Reference

```
#include <SoftwareSerial.h>
```

### Functions

- SoftwareSerial [GPRS](#) (7, 8)
- void [setup](#) ()
- void [loop](#) ()
- void [clearBufferArray](#) ()

### Variables

- unsigned char [buffer](#) [64]
- int [count](#) =0

#### 4.6.1 Function Documentation

##### 4.6.1.1 void [clearBufferArray](#) ( )

Definition at line 37 of file sketch\_jul22a.ino.

##### 4.6.1.2 SoftwareSerial [GPRS](#) ( 7 , 8 )

##### 4.6.1.3 void [loop](#) ( )

Definition at line 19 of file sketch\_jul22a.ino.

##### 4.6.1.4 void [setup](#) ( )

Definition at line 12 of file sketch\_jul22a.ino.

#### 4.6.2 Variable Documentation

##### 4.6.2.1 unsigned char [buffer](#)[64]

Definition at line 10 of file sketch\_jul22a.ino.

##### 4.6.2.2 int [count](#) =0

Definition at line 11 of file sketch\_jul22a.ino.

# Index

## BUFFSIZ

GPSTest\_RMC.ino, [8](#)

## buffer

GPSTest\_RMC.ino, [9](#)

sketch\_jul22a.ino, [13](#)

## buffidx

GPSTest\_RMC.ino, [9](#)

## CS

matrixdemo.ino, [11](#)

scrolldemo.ino, [12](#)

## CS2

matrixdemo.ino, [11](#)

scrolldemo.ino, [12](#)

## clearBufferArray

sketch\_jul22a.ino, [13](#)

## count

sketch\_jul22a.ino, [13](#)

## DATA

matrixdemo.ino, [11](#)

scrolldemo.ino, [12](#)

## date

GPSTest\_RMC.ino, [9](#)

## GPRS

sketch\_jul22a.ino, [13](#)

## GPSRATE

GPSTest\_RMC.ino, [8](#)

## GPSTest\_RMC.ino

BUFFSIZ, [8](#)

buffer, [9](#)

buffidx, [9](#)

date, [9](#)

GPSRATE, [8](#)

groundspeed, [9](#)

hour, [9](#)

latdir, [9](#)

latitude, [9](#)

longdir, [9](#)

longitude, [9](#)

loop, [8](#)

minute, [9](#)

month, [9](#)

mySerial, [9](#)

parsedecimal, [8](#)

parseptr, [10](#)

powerpin, [8](#)

readline, [8](#)

second, [10](#)

setup, [8](#)

status, [10](#)

trackangle, [10](#)

year, [10](#)

## groundspeed

GPSTest\_RMC.ino, [9](#)

hitchBOT/README.md, [7](#)

hitchBOT/documentation/README.md, [7](#)

hitchBOT/old code/matrixdemo/matrixdemo.ino, [10](#)

hitchBOT/old code/scrolldemo/scrolldemo.ino, [11](#)

hitchBOT/old code/sketch\_jul22a/sketch\_jul22a.ino, [13](#)

## hour

GPSTest\_RMC.ino, [9](#)

## latdir

GPSTest\_RMC.ino, [9](#)

## latitude

GPSTest\_RMC.ino, [9](#)

## longdir

GPSTest\_RMC.ino, [9](#)

## longitude

GPSTest\_RMC.ino, [9](#)

## loop

GPSTest\_RMC.ino, [8](#)

matrixdemo.ino, [11](#)

scrolldemo.ino, [12](#)

sketch\_jul22a.ino, [13](#)

## matrix

matrixdemo.ino, [11](#)

scrolldemo.ino, [12](#)

## matrixdemo.ino

CS, [11](#)

CS2, [11](#)

DATA, [11](#)

loop, [11](#)

matrix, [11](#)

setup, [11](#)

WR, [11](#)

## minute

GPSTest\_RMC.ino, [9](#)

- month
  - GPSTest\_RMC.ino, [9](#)
- mySerial
  - GPSTest\_RMC.ino, [9](#)
- parsedecimal
  - GPSTest\_RMC.ino, [8](#)
- parseptr
  - GPSTest\_RMC.ino, [10](#)
- powerpin
  - GPSTest\_RMC.ino, [8](#)
- readline
  - GPSTest\_RMC.ino, [8](#)
- scrolldemo.ino
  - CS, [12](#)
  - CS2, [12](#)
  - DATA, [12](#)
  - loop, [12](#)
  - matrix, [12](#)
  - setup, [12](#)
  - WR, [12](#)
- second
  - GPSTest\_RMC.ino, [10](#)
- setup
  - GPSTest\_RMC.ino, [8](#)
  - matrixdemo.ino, [11](#)
  - scrolldemo.ino, [12](#)
  - sketch\_jul22a.ino, [13](#)
- sketch\_jul22a.ino
  - buffer, [13](#)
  - clearBufferArray, [13](#)
  - count, [13](#)
  - GPRS, [13](#)
  - loop, [13](#)
  - setup, [13](#)
- status
  - GPSTest\_RMC.ino, [10](#)
- trackangle
  - GPSTest\_RMC.ino, [10](#)
- WR
  - matrixdemo.ino, [11](#)
  - scrolldemo.ino, [12](#)
- year
  - GPSTest\_RMC.ino, [10](#)