robotSensors

Version: 0

Generated by Doxygen 1.8.4

Tue Jun 11 2013 20:54:22

Contents

1	Mod	uls	1
	1.1	Camera	1
	1.2	Picture Accu	1
	1.3	Gyroscope	1
	1.4	Robot Sensors	1
	1.5	Microphone	1
	1.6	Brightness	1
	1.7	Time	2
2	Com	mands	3
	2.1	Read	3
	2.2	Start Read Fast	3
	2.3	Fast Value	3
	2.4	Show	3
	2.5	Start	3
	2.6	Brightest Point	3
	2.7	Stop	4
	2.8	Light On	4
	2.9	Light Off	4
	2.10	Read Noise Level	4
	2.11	Mean Color	4
	2.12	Darkest Point	4
	2.13	Cut	4
3	Teleç	gram Structure	5
	3.1	GYROSCOPE	5
		3.1.1 START_READ_FAST	5
		3.1.1.1 return	5
		3.1.2 READ	5
	3.2	CAMERA	5
		3.2.1 READ	5
		322 START	5

iv CONTENTS

	3.2.3	STOP	6
	3.2.4	LIGHT_ON	6
	3.2.5	LIGHT_OFF	6
3.3	PICTU	IRE_ACCU	6
	3.3.1	SHOW	6
	3.3.2	BRIGHTEST_POINT	6
	3.3.3	DARKEST_POINT	6
	3.3.4	MEAN_COLOR	6
	3.3.5	CUT	6
3.4	MICRO	DPHONE	6
	3.4.1	READ_NOISE_LEVEL	6
3.5	BRIGH	HTNESS	7
	3.5.1	READ	7
3.6	TIME .		7
	361	READ	7

Chapter 1

Moduls

1.1 Camera

Represents the Camera CAMERA = 0x00

1.2 Picture Accu

Saves Pictures and offers Image-Processing PICTURE_ACCU = 0x01

1.3 Gyroscope

Represents the Gyroscope Sensor GYROSCOPE = 0x04

1.4 Robot Sensors

Represents the Main-Modul ROBOT_SENSORS = 0x05

1.5 Microphone

Represents the Microphone MICROPHONE = 0x07

1.6 Brightness

Represents the Brightness Sensor BRIGHTNESS = 0x08 2 Moduls

1.7 Time

Represents the internal Watch

TIME = 0x09

Chapter 2

Commands

2.1 Read

Reads a value

READ = 0x00

2.2 Start Read Fast

Starts a Read-Fast-Session

Normally Robot Sensors is only answering once on a request. But after this command it will go on sending its data as fast as possible.

 $START_READ_FAST = 0x01$

2.3 Fast Value

Represents a value of a Read-Fast-Session

 $FAST_VALUE = 0x02$

2.4 Show

SHOW = 0x03

2.5 Start

START = 0x05

2.6 Brightest Point

Calculates the point with the highest brightness

 $BRIGHTEST_POINT = 0x06$

4 Commands

2.7 Stop

STOP = 0x07

2.8 Light On

Turns the light on $LIGHT_ON = 0x08$

2.9 Light Off

Turns the light off
LIGHT_OFF = 0x09

2.10 Read Noise Level

Reads the noise level READ_NOISE_LEVEL = 0x0A

2.11 Mean Color

Calculates the mean color MEAN_COLOR = 0x0B

2.12 Darkest Point

Calculates the point with the lowest brightness $\label{eq:decomposition} {\tt DARKEST_POINT} = 0 {\tt x0C}$

2.13 Cut

CUT = 0x0D

Chapter 3

Telegram Structure

Every telegram has the following structure:

telegram size LSB; telegram size MSB; 0xEE; 0x00; Modul; Command; additional data bytes In this chapter the telegram structure is documented.

For every Modul all possible Comands are listed.

3.1 GYROSCOPE

Gyroscope

3.1.1 START_READ_FAST

Start Read Fast

3.1.1.1 return

Returns either SUCCESS or ERROR

3.1.2 **READ**

Read

3.2 CAMERA

Camera

3.2.1 **READ**

Read

3.2.2 START

Start

6 Telegram Structure

3.2.3 STOP Stop 3.2.4 LIGHT_ON Light On 3.2.5 LIGHT_OFF Light Off 3.3 PICTURE_ACCU Picture Accu 3.3.1 SHOW Show 3.3.2 BRIGHTEST_POINT **Brightest Point** 3.3.3 DARKEST_POINT **Darkest Point** 3.3.4 MEAN_COLOR Mean Color 3.3.5 CUT Cut 3.4 MICROPHONE Microphone

3.4.1 READ_NOISE_LEVEL

Read Noise Level

3.5 BRIGHTNESS 7

3.5 BRIGHTNESS

Brightness

3.5.1 READ

Read

3.6 TIME

Time

3.6.1 READ

Read