DistanceGP2Y0A21YK

Generated by Doxygen 1.7.4

Tue Dec 27 2011 12:33:04

Contents

1 Class Index

1.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

2 Class Documentation

2.1 DistanceGP2Y0A21YK Class Reference

Public Member Functions

- DistanceGP2Y0A21YK ()

  DistanceGP2Y0A21YK.cpp - Library for retrieving data from the GP2Y0A21YK IR Distance sensor. For more information: variable declaration, changelog,... see DistanceGP2Y0A21YK.h.
- void begin ()

  Begin function to set pins: distancePin = A0.
- void begin (int distancePin)

  Begin variables.
- int getDistanceRaw ()

  getDistanceRaw(): Returns the distance as a raw value: ADC output: 0 -> 1023
- int getDistanceVolt ()

  getDistanceVolt(): Returns the distance as a Voltage: ADC Input: 0V -> 5V (or 0V -> 3.3V)
- int getDistanceCentimeter ()

  getDistanceCentimeter(): Returns the distance in centimeters
- boolean isCloser (int threshold)

  isCloser: check whether the distance to the detected object is smaller than a given threshold

- boolean isFarther (int threshold)

  isFarther: check whether the distance to the detected object is smaller than a given threshold
- void setAveraging (int avg)

  setAveraging(int avg): Sets how many samples have to be averaged in getDistanceCentimeter, default value is 100.
- void setARefVoltage (int _refV)

  setARefVoltage:set the ADC reference voltage: (default value: 5V, set to 3 for 3.3V)

2.1.1 Constructor & Destructor Documentation

2.1.1.1 DistanceGP2Y0A21YK::DistanceGP2Y0A21YK ( )

DistanceGP2Y0A21YK.cpp - Library for retrieving data from the GP2Y0A21YK IR Distance sensor. For more information: variable declaration, changelog,... see DistanceGP2Y0A21YK.h.

Constructor

2.1.2 Member Function Documentation

2.1.2.1 void DistanceGP2Y0A21YK::begin ( )

Begin function to set pins: distancePin = A0.

2.1.2.2 void DistanceGP2Y0A21YK::begin (int *distancePin*)

Begin variables.

- int _distancePin: number indicating the distance to an object: ANALOG IN
- int _transferFunctionLUT3V: Transfer function Lookup Table (for 3.3V reference value)
- int _transferFunctionLUT5V: Transfer function Lookup Table (for 5V reference value) When you use begin() without variables standard values are loaded: A0

2.1.2.3 int DistanceGP2Y0A21YK::getDistanceCentimeter ( )

getDistanceCentimeter(): Returns the distance in centimeters

2.1.2.4 int DistanceGP2Y0A21YK::getDistanceRaw ( )

getDistanceRaw(): Returns the distance as a raw value: ADC output: 0 -> 1023

2.1.2.5 int DistanceGP2Y0A21YK::getDistanceVolt ( )

getDistanceVolt(): Returns the distance as a Voltage: ADC Input: 0V -> 5V (or 0V -> 3.3V)

2.1.2.6 boolean DistanceGP2Y0A21YK::isCloser (int *threshold*)

isCloser: check whether the distance to the detected object is smaller than a given threshold

2.1.2.7 boolean DistanceGP2Y0A21YK::isFarther (int *threshold*)

isFarther: check whether the distance to the detected object is smaller than a given threshold

2.1.2.8 void DistanceGP2Y0A21YK::setARefVoltage (int *refV*)

setARefVoltage:set the ADC reference voltage: (default value: 5V, set to 3 for 3.3V)

2.1.2.9 void DistanceGP2Y0A21YK::setAveraging (int *avg*)

setAveraging(int avg): Sets how many samples have to be averaged in getDistance-Centimeter, default value is 100.

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

- /home/jeroen/.dropboxstorage/Dropbox/11-arduino/libraries/gp2y0a21yk-library/DistanceGP2Y0A21YK/Distance
- /home/jeroen/.dropboxstorage/Dropbox/11-arduino/libraries/gp2y0a21yk-library/DistanceGP2Y0A21YK/Distance

Index