

DistanceGP2Y0A21YK

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## 1 Class Index

### 1.1 Class List

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

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## 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/GoogleCode\_gp2y0a21yk-library/DistanceGP2Y0A21YK/DistanceGP2Y0A21YK.h
- /home/jeroen/.dropboxstorage/Dropbox/11-arduino/libraries/GoogleCode\_gp2y0a21yk-library/DistanceGP2Y0A21YK/DistanceGP2Y0A21YK.cpp

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