

## Arduino Temperature Sensor Library

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## 1 Class Index

### 1.1 Class List

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

<b>TemperatureTMP</b>	<b>1</b>
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## 2 File Index

### 2.1 File List

Here is a list of all files with brief descriptions:

<b>TemperatureTMP.cpp</b>	<b>5</b>
<b>TemperatureTMP.h</b>	<b>6</b>

## 3 Class Documentation

### 3.1 TemperatureTMP Class Reference

```
#include <TemperatureTMP.h>
```

Collaboration diagram for TemperatureTMP:

TemperatureTMP
- _temperaturePin - _refVoltage
+ TemperatureTMP() + begin() + begin() + setARefVoltage() + getTemperatureRaw() + getTemperatureCelcius() + getTemperatureFahrenheit()

#### Public Member Functions

- [TemperatureTMP \(\)](#)  
*Constructor.*
- void [begin \(\)](#)  
*Begin function to set pins: temperaturePin = A0.*
- void [begin](#) (int temperaturePin)
- void [setARefVoltage](#) (int refVoltage)
- int [getTemperatureRaw](#) ()  
*[getTemperatureRaw\(\)](#): Returns the temperature as a raw value: ADC output: 0 -> 1023*
- float [getTemperatureCelcius](#) ()  
*[getTemperaturePercentage\(\)](#): Returns the temperature percentage*
- float [getTemperatureFahrenheit](#) ()  
*[getTemperaturePercentage\(\)](#): Returns the temperature percentage*

#### Private Attributes

- int [\\_temperaturePin](#)
- int [\\_refVoltage](#)

#### 3.1.1 Detailed Description

Definition at line 27 of file TemperatureTMP.h.

#### 3.1.2 Constructor & Destructor Documentation

##### 3.1.2.1 TemperatureTMP::TemperatureTMP ( )

Constructor.

Definition at line 25 of file TemperatureTMP.cpp.

### 3.1.3 Member Function Documentation

#### 3.1.3.1 void TemperatureTMP::begin ( )

Begin function to set pins: temperaturePin = A0.

Definition at line 31 of file TemperatureTMP.cpp.

#### 3.1.3.2 void TemperatureTMP::begin ( int *temperaturePin* )

Begin variables

- int \_temperaturePin: number indicating the temperature sensor pin: ANALOG IN When you use [begin\(\)](#) without variables standard values are loaded: A0

Definition at line 39 of file TemperatureTMP.cpp.

Here is the call graph for this function:



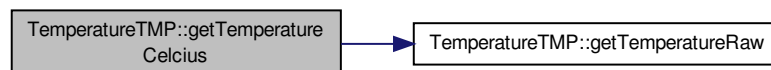
#### 3.1.3.3 float TemperatureTMP::getTemperatureCelcius ( )

`getTemperaturePercentage()`: Returns the temperature percentage

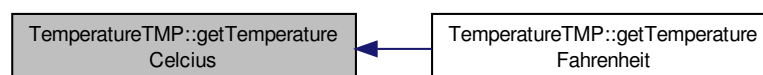
Definition at line 65 of file TemperatureTMP.cpp.

Referenced by `getTemperatureFahrenheit()`.

Here is the call graph for this function:



Here is the caller graph for this function:

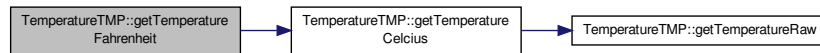


## 3.1.3.4 float TemperatureTMP::getTemperatureFahrenheit ( )

getTemperaturePercentage(): Returns the temperature percentage

Definition at line 86 of file TemperatureTMP.cpp.

Here is the call graph for this function:



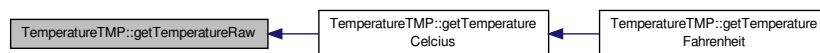
## 3.1.3.5 int TemperatureTMP::getTemperatureRaw ( )

[getTemperatureRaw\(\)](#): Returns the temperature as a raw value: ADC output: 0 -> 1023

Definition at line 59 of file TemperatureTMP.cpp.

Referenced by `getTemperatureCelcius()`.

Here is the caller graph for this function:



## 3.1.3.6 void TemperatureTMP::setARefVoltage ( int refV )

[setARefVoltage\(int \\_refV\)](#): Sets the AREF voltage to external, (now only takes 3.3 or 5 as parameter) default is 5 when no AREF is used. When you want to use 3.3 AREF, put a wire between the AREF pin and the 3.3 V VCC pin and change the This increases accuracy

Definition at line 49 of file TemperatureTMP.cpp.

Referenced by `begin()`.

Here is the caller graph for this function:



## 3.1.4 Member Data Documentation

## 3.1.4.1 int TemperatureTMP::\_refVoltage [private]

Definition at line 42 of file TemperatureTMP.h.

Referenced by `getTemperatureCelcius()`, and `setARefVoltage()`.

### 3.1.4.2 `int TemperatureTMP::_temperaturePin` [private]

Definition at line 41 of file `TemperatureTMP.h`.

Referenced by `begin()`, and `getTemperatureRaw()`.

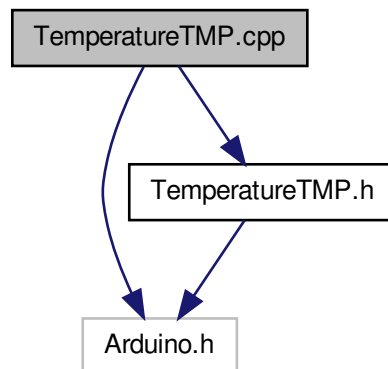
## 4 File Documentation

### 4.1 `TemperatureTMP.cpp` File Reference

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

```
#include <TemperatureTMP.h>
```

Include dependency graph for `TemperatureTMP.cpp`:



#### Macros

- `#define` [AREF](#) 5

#### 4.1.1 Macro Definition Documentation

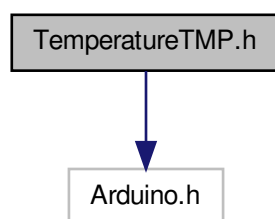
##### 4.1.1.1 `#define AREF` 5

Definition at line 22 of file `TemperatureTMP.cpp`.

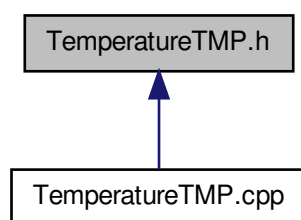
## 4.2 TemperatureTMP.h File Reference

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

Include dependency graph for TemperatureTMP.h:



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



### Classes

- class [TemperatureTMP](#)

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