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# **zorg-grove Documentation**

***Release 0.0.1***

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For full documentation visit [zorg-grove.readthedocs.org](https://zorg-grove.readthedocs.org).



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### 1.1 LCD Driver

Documentation for the [Grove RGB LCD I2C driver](#).

**class** zorg\_grove.lcd(*options, connection*)

Bases: zorg.driver.Driver

**backlight\_color**(*red, green, blue*)

Set RGB color for the back light.

**backlight\_off**()

Turns off the back light. Does so by setting the color to black.

**backlight\_on**()

Turns on the back light. Does so by setting the color to white

**blink\_off**()

Turns off the cursor blinking character.

**blink\_on**()

Turns on the cursor blinking character.

**clear**()

Clears display and returns cursor to the home position (address 0).

**cursor\_off**()

Turns off the cursor.

**cursor\_on**()

Turns on the cursor.

**display\_off**()

Sets Off of all display (D), cursor Off (C) and blink of cursor position character (B).

**display\_on**()

Sets On of all display (D), cursor On (C) and blink of cursor position character (B).

**home**()

Returns cursor to home position.

**print\_string**(*characters*)

Prints characters on the LCD. Automatically wraps text to fit 16 character wide display.

**set\_cursor**(*col, row*)

Sets cursor position.

```
start()
```

## 1.2 Microphone Driver

Documentation for the [Grove Sound Sensor](#) driver.

```
class zorg_grove.microphone.Microphone(options, connection)
```

Bases: `zorg.driver.Driver`

```
read_decibels()
```

Returns the value of the current sound level in decibels.

## 1.3 Rotary Angle Sensor

Documentation for the [Grove Rotary Angle Sensor](#) driver.

```
class zorg_grove.rotary_angle_sensor.RotaryAngleSensor(options, connection)
```

Bases: `zorg.driver.Driver`

This may also be known as a potentiometer.

```
read_angle()
```

Read and return the current angle of the sensor in degrees. The rotary angle sensor produces analog output between 0 and Vcc (D1).

## 1.4 Servo

Documentation for the [Grove Servo](#) driver.

```
class zorg_grove.servo.Servo(options, connection)
```

Bases: `zorg.driver.Driver`

```
get_angle()
```

Get the current angle of the servo motor.

```
set_angle(angle)
```

Set the angle of the servo motor.

## 1.5 Temperature Sensor

Documentation for the [Grove Temperature Sensor](#) driver.

```
class zorg_grove.temperature_sensor.TemperatureSensor(options, connection)
```

Bases: `zorg.driver.Driver`

```
read_celsius()
```

Read and return the celsius value of the temperature sensor. See data sheet:  
<http://www.seeedstudio.com/wiki/images/a/a1/NCP18WF104F03RC.pdf>

```
read_fahrenheit()
```

Read and return the fahrenheit value of the temperature sensor.

**read\_kelvin()**

Read and return the kelvin value of the temperature sensor.

**read\_resistance()**

Read and return the resistive value of the temperature sensor.



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## Overview

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This package includes python drivers for controlling hardware devices. Typically, this package will not be used directly. The normal usage would be to include it as a device driver when configuring a robot using [Zorg](#).



## **Installation**

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Install this package using

```
pip install zorg-grove
```



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## Usage

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The driver should be included using the dot-notated format of the import string.

```
"zorg_grove.Servo"
```



## **Indices and tables**

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