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# AdafruitTFmini Library Documentation

*Release 1.0*

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A CircuitPython/Python library for Benewake's TF mini distance sensor



# CHAPTER 1

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## Dependencies

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This driver depends on:

- [Adafruit CircuitPython](#)

Please ensure all dependencies are available on the CircuitPython filesystem. This is easily achieved by downloading the [Adafruit library and driver bundle](#).

### 1.1 Installing from PyPI

On supported GNU/Linux systems like the Raspberry Pi, you can install the driver locally [from PyPI](#). To install for current user:

```
pip3 install adafruit-circuitpython-tfmini
```

To install system-wide (this may be required in some cases):

```
sudo pip3 install adafruit-circuitpython-tfmini
```

To install in a virtual environment in your current project:

```
mkdir project-name && cd project-name
python3 -m venv .env
source .env/bin/activate
pip3 install adafruit-circuitpython-tfmini
```





## CHAPTER 2

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### Usage Example

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```
import time
import board # comment this out if using pyserial
import busio # comment this out if using pyserial
import adafruit_tfmini

# Use hardware uart
uart = busio.UART(board.TX, board.RX)

# Or, you can use pyserial on any computer
#import serial
#uart = serial.Serial("/dev/ttyS2", timeout=1)

# Simplest use, connect with the uart bus object
tfmini = adafruit_tfmini.TFmini(uart)

# You can put in 'short' or 'long' distance mode
tfmini.mode = adafruit_tfmini.MODE_SHORT
print("Now in mode", tfmini.mode)

while True:
    print("Distance: %d cm (strength %d, mode %x)" %
          (tfmini.distance, tfmini.strength, tfmini.mode))
    time.sleep(0.1)
```



## CHAPTER 3

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### Contributing

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Contributions are welcome! Please read our [Code of Conduct](#) before contributing to help this project stay welcoming.



## CHAPTER 4

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### Documentation

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For information on building library documentation, please check out [this guide](#).



## 5.1 Simple test

Ensure your device works with this simple test.

Listing 1: examples/tfmini\_simpletest.py

```
1  # SPDX-FileCopyrightText: 2021 ladyada for Adafruit Industries
2  # SPDX-License-Identifier: MIT
3
4  import time
5  import board # comment this out if using pyserial
6  import busio # comment this out if using pyserial
7  import adafruit_tfmini
8
9  # Use hardware uart
10 uart = busio.UART(board.TX, board.RX)
11
12 # Or, you can use pyserial on any computer
13 # import serial
14 # uart = serial.Serial("/dev/ttyS2", timeout=1)
15
16 # Simplest use, connect with the uart bus object
17 tfmini = adafruit_tfmini.TFmini(uart)
18
19 # You can put in 'short' or 'long' distance mode
20 tfmini.mode = adafruit_tfmini.MODE_SHORT
21 print("Now in mode", tfmini.mode)
22
23 while True:
24     print(
25         "Distance: %d cm (strength %d, mode %x)"
26         % (tfmini.distance, tfmini.strength, tfmini.mode)
27     )
```

(continues on next page)

```
time.sleep(0.1)
```

## 5.2 adafruit\_tfmini

A CircuitPython/Python library for Benewake's TF mini distance sensor

- Author(s): ladyada

### 5.2.1 Implementation Notes

**Hardware:**

**Software and Dependencies:**

- Adafruit CircuitPython firmware for the supported boards: <https://github.com/adafruit/circuitpython/releases>

**class** `adafruit_tfmini.TFmini` (*uart*, \*, *timeout=1*)

TF mini communication module, use with just RX or TX+RX for advanced command & control. :param *uart*: the pyserial or busio.uart compatible uart device :param *timeout*: how long we'll wait for valid data or response, in seconds. Default is 1

**distance**

The most recent distance measurement in centimeters

**mode**

The measurement mode can be MODE\_SHORT (2) or MODE\_LONG (7)

**strength**

The signal validity, higher value means better measurement



## CHAPTER 6

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### Indices and tables

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- `modindex`
- `search`



### a

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