CircuitPython paj7620 Library Documentation

Release 1.0

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Driver for the PAJ7620 gesture sensor.

CHAPTER

ONE

DEPENDENCIES

This driver depends on:

- Adafruit CircuitPython
- Bus Device

Please ensure all dependencies are available on the CircuitPython filesystem. This is easily achieved by downloading the Adafruit library and driver bundle or individual libraries can be installed using circup.

CHAPTER

TWO

INSTALLING FROM PYPI

Note: This library is not available on PyPI yet. Install documentation is included as a standard element. Stay tuned for PyPI availability!

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

```
pip3 install circuitpython-paj7620
```

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

```
sudo pip3 install circuitpython-paj7620
```

To install in a virtual environment in your current project:

```
mkdir project-name && cd project-name
python3 -m venv .venv
source .env/bin/activate
pip3 install circuitpython-paj7620
```

CHAPTER

THREE

INSTALLING TO A CONNECTED CIRCUITPYTHON DEVICE WITH CIRCUP

Make sure that you have `circup` installed in your Python environment. Install it with the following command if necessary:

```
pip3 install circup
```

With `circup` installed and your CircuitPython device connected use the following command to install:

```
circup install paj7620
```

Or the following command to update an existing version:

```
circup update
```

CHAPTER

FOUR

USAGE EXAMPLE

```
sensor = paj7620.PAJ7620Gesture(i2c)
gestures = sensor.read()
print(gestures)
```

CHAPTER

FIVE

DOCUMENTATION

API documentation for this library can be found on Read the Docs.

For information on building library documentation, please check out this guide.

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CONTRIBUTING

Contributions are welcome! Please read our Code of Conduct before contributing to help this project stay welcoming.

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7.1 Simple test

Ensure your device works with this simple test.

Listing 1: examples/paj7620_simpletest.py

```
# SPDX-FileCopyrightText: 2017 Scott Shawcroft, written for Adafruit Industries
# SPDX-FileCopyrightText: Copyright (c) 2022 Radomir Dopieralski
#
# SPDX-License-Identifier: Unlicense
import board
import busio
import paj7620


i2c = busio.I2C(board.SCL, board.SDA, frequency=400_000)
sensor = paj7620.PAJ7620Gesture(i2c)

while True:
    time.sleep(1)
    gesture = sensor.read()
    print(gesture)
    if gesture & paj7620.UP:
        print("up")
    if gesture & paj7620.DOWN:
        print("down")
    if gesture & paj7620.LEFT:
        print("left")
    if gesture & paj7620.RIGHT:
        print("right")
    if gesture & paj7620.NEAR:
        print("near")
    if gesture & paj7620.FAR:
        print("far")
    if gesture & paj7620.CW:
        print("cw")
    if gesture & paj7620.CCW:
        print("ccw")
    if gesture & paj7620.WAVE:
        print("wave")
```

7.2 paj7620

Driver for the PAJ7620 gesture sensor.

- Author(s): Radomir Dopieralski

7.2.1 Implementation Notes

Hardware:

- Waveshare Breakout"

Software and Dependencies:

- Adafruit CircuitPython firmware for the supported boards: https://circuitpython.org/downloads
- Adafruit's Bus Device library: https://github.com/adafruit/Adafruit_CircuitPython_BusDevice

class paj7620.**PAJ7620Gesture**(*i2c*, *addr=115*)

Gesture sensor.

read()

Read and clear the gestures from the sensor.

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