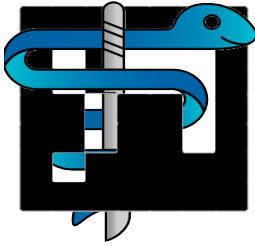

ArUcoPatternMaker Documentation

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ArUcoPatternMaker is part of the [SciKit-Surgery](#) software project, developed at the [Wellcome EPSRC Centre for Interventional and Surgical Sciences](#), part of [University College London \(UCL\)](#).

ArUcoPatternMaker seems to be derived from [arucomarker.py](#)

ArUcoPatternMaker supports Python 2.7 and Python 3.6.

```
python arucopatternmaker.py python arucopatternmaker.py
```


1.1 Cloning

You can clone the repository using the following command:

```
git clone https://github.com/SciKit-Surgery/ArUcoPatternMaker
```

1.2 Running tests

Pytest is used for running unit tests:

```
pip install pytest  
python -m pytest
```

1.3 Linting

This code conforms to the PEP8 standard. Pylint can be used to analyse the code:

```
pip install pylint  
pylint --rcfile=tests/pylintrc arucopatternmaker
```


INSTALLING

You can pip install directly from the repository as follows:

```
pip install git+https://github.com/SciKit-Surgery/ArUcoPatternMaker
```

2.1 Contributing

Please see the [contributing guidelines](#).

2.2 Useful links

- [Source code repository](#)
- [Documentation](#)

LICENSING AND COPYRIGHT

Copyright 2020 University College London. ArUcoPatternMaker is released under the BSD-3 license. Please see the [license file](#) for details.

ACKNOWLEDGEMENTS

Supported by [Wellcome](#) and [EPSRC](#).

4.1 Requirements for ArUcoPatternMaker

This is the software requirements file for ArUcoPatternMaker, part of the SNAPPY project. The requirements listed below should define what ArUcoPatternMaker does. Each requirement can be matched to a unit test that checks whether the requirement is met.

4.1.1 Requirements

ID	Description	Test
0000	Module has a help page	pylint, see tests/pylint.rc and tox.ini
0001	Functions are documented	pylint, see tests/pylint.rc and tox.ini
0002	Package has a version number	No test yet, handled by git.

4.2 latest

4.2.1 arucopatternmaker package

Subpackages

arucopatternmaker.algorithms package

Submodules

arucopatternmaker.algorithms.algorithms module

Algorithms for the ArUco pattern maker application

`arucopatternmaker.algorithms.algorithms.draw_marker(ctx, id10, tag_width, tag_height, pos_x, pos_y, marker_colour=None, page_offset=None)`

draws an ArUco marker on the canvas

Parameters

- **ctx** – the canvas context to draw on
- **id10** – the marker id to draw in base 10
- **tag_width** – The marker width
- **tag_height** – The marker height
- **pos_x** – The marker centre (horizontal)
- **pos_y** – The marker centre (vertical)
- **marker_colour** – The marker colour to use, default black

Returns a string defining the marker for a reference file

`arucopatternmaker.algorithms.algorithms.int2base(int_x, base)`

Convert an integer value (base 10) to another base

Parameters

- **int_x** – a base 10 integer
- **base** – the base to convert to

Returns the number in a different base

Module contents

arucopatternmaker.ui package

Submodules

arucopatternmaker.ui.arucopatternmaker_command_line module

Command line processing

`arucopatternmaker.ui.arucopatternmaker_command_line.main(args=None)`

Entry point for ArUcoPatternMaker application

arucopatternmaker.ui.arucopatternmaker_demo module

ArUco Pattern Maker

`arucopatternmaker.ui.arucopatternmaker_demo.run_demo(page_size, landscape, fill_page, page_margin, marker_size, border_size, spacing, columns, rows, output, first, last, count, randomise)`

Run the application

Module contents

ArUcoPatternMaker

Module contents

ArUcoPatternMaker

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