# How to contribute

Third-party patches are essential for keeping Paparazzi great.

We want to keep it as easy as possible to contribute changes that

get things working in your use-case. There are a few guidelines that we

need contributors to follow so that we can have a chance of keeping on

top of things.

## Getting Started

\* Make sure you have a [GitHub account](https://github.com/signup/free)

\* Submit a ticket for your issue, assuming one does not already exist.

\* Clearly describe the issue including steps to reproduce when it is a bug.

\* Make sure you fill in the earliest version that you know has the issue.

\* Fork the repository on GitHub

## Making Changes

\* Create a topic branch from where you want to base your work.

\* This is usually the master branch.

\* Only target release branches if you are certain your fix must be on that

branch.

\* To quickly create a topic branch based on master; `git branch

my\_contribution master` then checkout the new branch with `git

checkout my\_contribution`. Please avoid working directly on the

`master` branch.

\* Make commits of logical units with descriptive commit messages and note the corresponding issue (which GitHub will autolink), e.g.:

```

[modules] air\_data: fix altitude calculation

- fix altitude calculation from differential pressure

- take geoid separation into account when calculating QNH

Fixes issue #123

```

\* Check for unnecessary whitespace with `git diff --check` before committing.

## Style

\* C/C++ code: Two spaces, no tabs

\* Use [Doxygen](http://www.doxygen.org) comments

\* Python: Four spaces, no tabs, see [PEP8](http://www.python.org/dev/peps/pep-0008)

\* No trailing whitespace. Blank lines should not have any space.

## Submitting Changes

\* Push your changes to a topic branch in your fork of the repository.

\* Submit a [pull request](https://github.com/paparazzi/paparazzi/compare/) to the repository in the paparazzi organization.

# Additional Resources

\* [More information on contributing](http://wiki.paparazziuav.org/wiki/Contributing)

\* [Coding style guidelines](http://docs.paparazziuav.org/latest/styleguide.html)

\* [Issue tracker](https://github.com/paparazzi/paparazzi/issues)

\* [General GitHub documentation](http://help.github.com/)

\* [GitHub pull request documentation](http://help.github.com/send-pull-requests/)

\* [![Gitter chat](https://badges.gitter.im/paparazzi/discuss.svg)](https://gitter.im/paparazzi/discuss)