

# quadcopter package

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## I. INTRODUCTION

THE quadcopter package is filled with obtuse and often confusing code derived from various physics equations and mathematical formulas. This paper hopes to bridge the gap between quadcopter theory and the `src` files included. This paper can also be used as a reference for later expanding this package.

## II. MODEL

### A. Rotations

Define rotations such that the angular velocity is positive.

$${}_N\omega_A = \dot{a}\hat{\mathbf{n}}_z = \dot{a}\hat{\mathbf{a}}_z \quad (1)$$

where  $a$  is the yaw,  $b$  is the pitch,  $c$  is the roll.

## APPENDIX

### PROOF OF THE ZONKLAR EQUATIONS

Use `\appendix` if you have a single appendix: Do not use `\section` anymore after `\appendix`, only `\section*`. If you have multiple appendixes use `\appendices` then use `\section` to start each appendix. You must declare a `\section` before using any `\subsection` or using `\label` (`\appendices` by itself starts a section numbered zero.)

## REFERENCES SECTION

You can use a bibliography generated by BibTeX as a `.bbl` file. BibTeX documentation can be easily obtained at: <http://mirror.ctan.org/biblio/bibtex/contrib/doc/> The IEEEtran BibTeX style support page is: <http://www.michaelshell.org/tex/ieeetran/bibtex/>

## SIMPLE REFERENCES

You can manually copy in the resultant `.bbl` file and set second argument of `\begin` to the number of references (used to reserve space for the reference number labels box).

## REFERENCES

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