

Instruction Manual

Programmable Flight Controller

Prepared for Reiland Systems

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Submitted: April 10, 2017



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This document was written in L^AT_EX. It was compiled with pdf_latex. The source of the document may be viewed at:
<https://github.com/Brendoncam/SYP/edit/master/Documents/Instruction%20Manual/InstructionMa>

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Abstract

The following instruction manual provides information regarding the design and usage of the flight controller. The required packages, libraries, installation procedures are outlined in the documentation. The function libraries provided are discussed in detail to ensure clarification.

1 GUI

This section gives the user instructions on how to make use of the functionalities the GUI has to offer as well as outlines how to add additional functionality if desired. It begins by explaining the required software and libraries the user must have installed in order to use the GUI. Which definitions the pushbuttons on the GUI are linked to will be outlined and finally a brief set of instructions on how to add new pushbuttons, pages and where to find additional Qt resources will be included.

1.1 Required Software

The following is a list of the required software needed to run the GUI:

- QtDesigner (Included in QtCreator5.6)
- Python3

If your system does not have QtDesigner installed follow these steps:

1. Open your preferred browser and navigate to: <https://www.qt.io/qt5-6/> and click "Download"
2. On the next page select "In-house deployment, private use, or student use" and click "Get Started"
3. On the next page select "No" and click "Get Started"
4. On the next page select "No" and click "Get Started"
5. On the next page select "Desktop/multiscreen application" and click "Get Started"
6. You should now be on a entirely different page outlining the Commerical and Open Source versions of Qt scroll down and select "Get your open source package"
7. On the next page click "Download Now" to download the installer
8. Once you have downloaded the installer run it
9. With the installer now running click "Next"
10. Enter your Qt account information, if you do not already have a Qt account you can make one within the installer enter this information and then click "Next"

11. You should now be on the Setup page on the installer click "Next"
12. Browse for an installation folder or click "Next" to use the default one provided, ensure the "Associate common file types with QtCreator" box is selected
13. On the next page click "Deselect All" at the bottom of the page and then select "Qt5.6" and "Tools" from the list. then click "Next"
14. On the next page select "I agree" and then click "Next"
15. On the next page click "Next"
16. Finally, click "Install"