Spitfire Mk1A
Replica Flight Controls

Instructions and 3D print files to assemble your own high quality replica Mk1A flight controls

Fly AuthentiKit
Modular Flight Control System

Microsoft Flight Simulator Compatible

Designed by AuthentiKit
With technical support from Aeroplane Heaven to achieve an accurate replica of the Supermarine Spitfire Mk1A

This set of flight controls has been created by **AuthentiKit**, a freeware project independent of Aeroplane Heaven. We collaborated with Aeroplane Heaven for technical assistance and model references to bring you the most authentic flight sim experience we possibly could when you're in the seat of the Aeroplane Heaven Spitfire Mk1A.

All support and questions related to these flight controls should be directed to **contact@authentikit.org**

Background

AuthentiKit is a freeware initiative started in 2020 with the aim of harnessing the potential of consumer level 3D printing to bring high quality replica flight controls to the flight simulation community at very low cost. The approach is based on self-build kits incorporating quality components like hall sensors and sealed bearings. All designs are free to download and print yourself.

Self-Build Kit Approach

Over a two year R&D period by AuthentiKit founder, Phil Hulme, a standard simplified assembly approach was developed. The aim was to make assembly as simple as an Airfix model - no soldering, no electronics skills required, no specialist tools. Just easy to follow instructions available on YouTube.
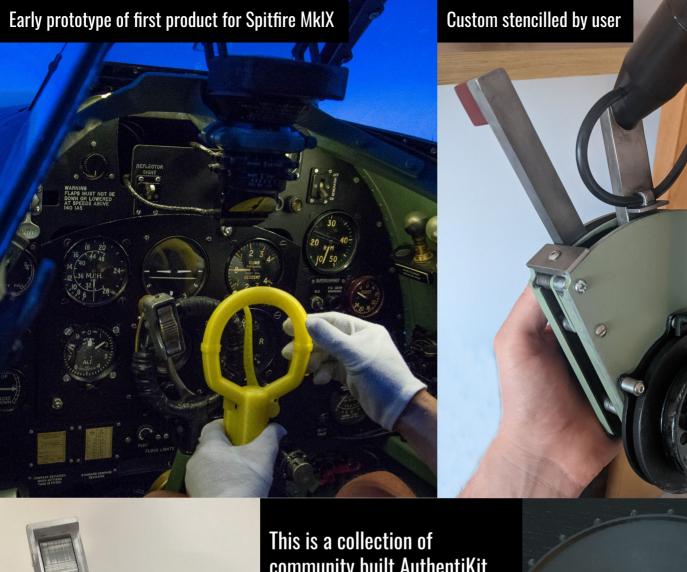
No Printer Required

In just the first few weeks since launch AuthentiKit designs have been downloaded over one thousand times and well over a hundred people have completed or are currently building an AuthentiKit flight control. Examples are shown overleaf. Some have printed the parts themselves, others have sourced parts from 3rd parties using our **community printing service** available via the AuthentiKit Discord server.

Just the Beginning

The first AuthentiKit controls were for the Spitfire MkIX and we are proud to now be working with industry leading developer Aeroplane Heaven on their Spitfire Mk1A. Many more projects are in the pipeline including GA aircraft. The aim is to inspire and support the freeware community to create replica controls for a huge range of aircraft, in contrast to the very limited (Cessna or generic fighter stick HOTAS) options available from mainstream suppliers.

DOWNLOAD FILES FREE FROM **https://authentikit.org/spitfire-mk1a/**

Visit AUTHENTIKIT.ORG for more information and a Discord invitation

Early prototype of first product for Spitfire MkIX

Custom stencilled by user

This is a collection of community built AuthentiKit flight controls, some of which have had custom paint finishes. See authentikit.org/gallery for more examples. Mk1A controls will also be added to the gallery as they are created.

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1

Download the CAD files and assembly instructions from https://authentikit.org/spitfire-mk1a then either print yourself or ask someone in the AuthentiKit Discord server to print them for you.

2

The assembly instructions include a list of the hardware parts required. Mainly low cost stuff like screws and bearings. Order these from Amazon or eBay or get an all-in-one kit from simkitsupplies.com (they can also help you with the 3D printing)

3

Follow the YouTube videos which explain the assembly process. The trim wheels take about 15 minutes and the quadrant around 45 minutes. The universal hub which connects them takes around 25 minutes. No metal work or workshop required - just a kitchen table.

4

Plug into your PC with a single USB. The controls use a quick release mount system (so you can easily swap aircraft) and fit to an ordinary monitor stand you can buy off Amazon. See authentikit.org for more information.

FOR MORE INFORMATION AND ASSEMBLY VIDEOS   https://authentikit.org/spitfire-mk1a/

Spitfire Mk1A
Replica Flight Controls

Key Features and Specifications
- Independent throttle, mixture and prop lever
- Automatic Boost Cut Out system designed in collaboration with Aeroplane Heaven
- Hall sensors for smooth precise control and a lifetime of use
- Separate elevator and rudder trim wheels
- Accurate scale replica
- Mounting system ensures accurate placement of controls as they would be in the real aircraft
- Quick release system allowing quick changes between aircraft

Will there be any other controls?
- Yes. These controls use three inputs from the central "universal hub" which connects to your PC with a single USB. The hub has a total of 10 inputs and more controls will follow to use these.
- Flight stick, landing gear and flaps are in development now with more to follow.

Will these controls work with other aircraft?
- Absolutely. You will probably be amazed at the extra sensitivity you have with these controls, especially the flight stick and you may wish to use them with many different aircraft.

Do I need a 3D printer?
- No. If you want the simplest package possible, contact SimKitSupplies.com who will send you a kit of all parts and help you with the 3D printing.

My download includes an STL file - is this what I print?
- No, that STL is a merged preview of the throttle quadrant and trim wheels. It is very similar to the files you 3D print but it is not suitable for printing itself.

Where can I ask questions or get support on this?
- Visit Authentikit.Org and if you go to the **Community** page there is an invitation link to our Discord server where the AuthentiKit developer or members of our very active community will help you.

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