Universal Hub Upgrade Kit

Bill of Materials

Overview

This is a list of all the hardware and components you need to build the Universal Hub Upgrade Kit.

Sourcing Advice and Comments

A key design criteria for this flight control is that all parts should be low cost commodity items readily available from Amazon or eBay. The vast majority of items cost $2 or less each.

Alternative Sourcing

A supplier has been found who is now making up kits containing all the items necessary for this build. They are recommended on the condition that they can supply parts cheaper than you can source them yourself and they continue to achieve this. See their website for more details.

Simulation Kit Supplies sells kits for this project at www.simkitsupplies.com

Full list of parts for universal hub upgrade kit

The price column is purely an estimate based on experience. You may be able to source parts cheaper or you may well find them to be more expensive. The price is for all the parts of that type required, not the unit price.

Code	Component	Quantity	Price	Comment	Sourcing
	RJ45 Keystone Jacks	6	£12	IMPORTANT - SEE BELOW	https://www.amazon.com/RJ45-Keystone-Jack-Tool-Less-Required/dp/B07JW7F9XG/ref=pd_lpo_1
	Dupont wires - strip of 40	40	£4	Go for 20cm long. Just chop off the male ends so you have bare wire.	https://www.amazon.com/Aukru-20cm-Breadboard-Arduino-Raspberry/dp/B019SX72CI/ref=sr_1_3
	Ethernet cable 0.5m	2	£5	Short one for flaps and misc1	Ordinary black cables
	Ethernet cable 1.0m	2	£5	For radiator flaps and engine 2	
	Ethernet cable 1.5m	2	£5	Longest length landing gear and misc	
	AWG 26 wire black (m)	1.0	50p	You need very little here which doesn't cost much but its best to use the same wire as you will use for all the other parts of this project, so you might be best buying a pack. The pack costs around £15 but I've put down £1 as an indicative price for these small parts.	https://www.amazon.com/Electrical-26-Flexible-Silicone-different/dp/B07G2LRX68/ref=sr_1_4?dchild=1&keywords=26+awg+silicone&qid=1619273394&sr=8-4
	AWG 26 wire red (m)	1.0	50p	As above	As above
			£32		

RJ45 Keystone Jacks

I have tried many types of RJ45 jack and I find this particular type the best and the most reliable so all my designs are built to its specification. Other keystone jacks may well fit as they generally have the same slot shape but the overall body dimensions can vary so you'd need to test to be sure. Note that the channel numbering varies even when the jacks look the same, so to avoid problems it is best to stick with the same brand. The order of the channels I use and I have instructed SimKitSupplies to supply is this: **1 2 5 4 8 7 3 6**

Order of channels

Design of keystone jack