MORE CBUS COURSE

Here are the details for the "More CBUS" course which will take place at Strode College, Somerset, over two days **9th and 10th July 2019.**

The pre-requisite for this course is that you have already attended the Introduction to CBUS course, or that you already have a good understanding of the basics of CBUS, building modules and getting them working.

For course booking, details of the venue and course start and finish times please contact Strode College directly.

The course will be a mix of theory and practical.

Your course tutors will be Pete Brownlow and Tony Braithwaite.

IMPORTANT!
What we assume you already know:
- What CBUS is
- What it is for
- Concepts – Nodes, Producers, Consumers
- How to build a CBUS kit
- Wiring up power and CAN - terminations etc
- Connecting to computer using CANUSB
- Configuring using FliM with the FCU
- Teaching events using FCU

"More CBUS" takes you on from the basics to more advanced topics.
Topics covered will include:
- Recent Developments in CBUS
- Connecting to CBUS using Ethernet - the CANEther module
- Using the CANPi and CANPiWi modules
- More practice and setup in FliM using the FCU utility
- Understanding CBUS messages
- "Start of day" events
- Short vs long events
- Teaching producer events
- Turnout feedback - real and virtual
- Using FCU with generic dialogs
- The new Universal CANMIO firmware:
  - Inputs/outputs and servos all on one board
  - Concepts
  - Limitations
  - Setting up with FCU
- Using CANMIO daughter boards
- Advanced conditional events and interlocking using CANCOMPUTE
- Changing settings in the MERG CANCMD using FCU

What to bring

If you already have some CBUS modules, either already built or still in their kit bag, please bring them with you.

We hope to arrange some CBUS kits at the course for purchase during the weekend, but to be sure of being able to get what you want, it would be best to order any kits you require in advance from the MERG kit locker.

If you order kits no later than 1st July, you can specify collection at the CBUS course and we will arrange for them to be brought to the course for you. After that date, you will have to pay the usual postage and have the kits dispatched directly to you.

Suggested tools for electronic kit assembly are as follows:

- Soldering iron (25-40W temperature controlled with interchangeable bits is best)
- Solder – Tin/Lead 60/40 resin cored, about 0.7mm or 22SWG size
  (note that lead free solder such as that sold by Maplin is much more difficult to use)
- Solder sucker and/or de-solder braid (for when you get it wrong!!)
- Small side cutters
- Wire strippers
- Small long nose pliers
- Tweezers
- Small screwdrivers
- Bendy Jig (available from the MERG kit locker in the tools section)
- Work light, such as an anglepoise or similar
- Optivisor or magnifier according to your preference
- Multimeter if you have one

and any other favourite tools you have for electronic construction.

Note that last time Strode college did supply soldering stations. However, the soldering iron bits were in a very poor state. This might well have improved, but to make sure you have something you know works, it would be best to bring your own favourite soldering iron for electronics assembly.

We will make a lot of use of the FCU configuration program during this course. To get the most out of the course, you should bring a laptop with you. The FCU program requires Windows and will run on versions from Windows XP to Windows 10.

If you do not have one or two items on the list, don't panic because there is always the possibility of borrowing from the course tutors or other course members. If you are not sure about the tools you need to bring, please get in touch.