



ELECTRONICS FOR RAILWAY MODELLERS

WEEKEND AT MISSENDEN ABBEY

7-9TH MAY 2010



After the 2009 weekend we had plenty of feedback on course content, in particular what was relevant to beginners and those with little knowledge of electronics. This has been incorporated in the programme for the 2010 weekend.

Howard Watkins will be taking the beginners group providing a mixture of theoretical and practical work. It will be invaluable to those with little understanding of electronics and will enable them to build a useful circuit, test it and understand how it works.

The programme for **Beginners** will include:-

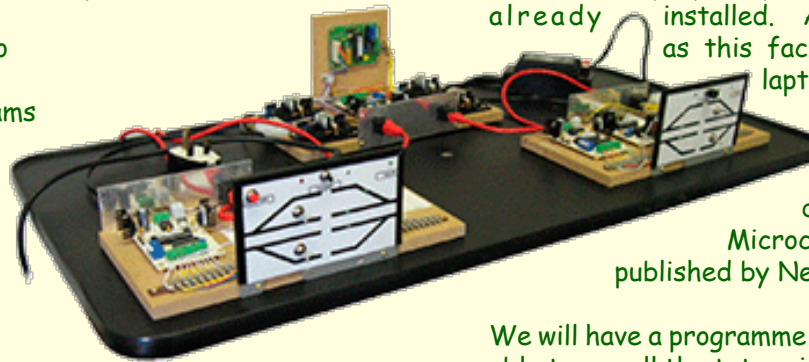
- ✦ Soldering and basic connecting of wires to components
- ✦ Selecting the right tools
- ✦ Component Recognition and what they do
- ✦ How to get the best from a Multimeter
- ✦ Understanding Schematic Circuit Diagrams
- ✦ Building your first MERG kit
- ✦ Faultfinding

- ✦ Baseboard Wiring
- ✦ Wiring Live and Dead frog points
- ✦ Wiring for DCC

- ✦ Layout control (RPIC, CBUS, Superbloc)
- ✦ The different sorts of point motors and how to drive them
- ✦ Fun with LEDs

You might ask if we need to teach basic wiring. From the conversations I have had, there is a definite demand and I think our weekend is the right time and place to do it. Trying to get the balance between theoretical and practical is a challenge and it is difficult to know what is right. Our philosophy is that the best way to learn is by making something and getting it to work. Take away something you have built for your railway, made to work and understand how it works and what it does makes all the difference to the learning experience of the weekend.

FOR THE MORE EXPERIENCED, **Mike Bolton** and **Pete Brownlow** will run the **Layout Control** and **DCC** workshop and **Gordon Hopkins** will give a **talk on PCB production**, as well as being available to help Bob Vetterlein and RPIC projects.



Bob Vetterlein will be teaching **PIC Programming** which will be a mixture of theory and practice and not constructional as the other groups. Learn to programme a microcontroller for applications such as interlocking; write some code and programme a PIC for a model railway application, rather than build hardware. You will also be helped to use a PIC kit (it would be helpful for you to have a PIC kit).



In order to participate in the **PIC Programming** group, you will need to have built and tested a Programmable Relay Board. The kit for this is available from us (please contact me). You will also need a laptop computer, ideally with Microchip MPLAB IDE version 7 or above already installed. A PIC device programmer is useful but not essential as this facility will be available on the day, however without a laptop computer the potential benefits of attending the Programming session will be limited. For those of you who have already had some instruction, or who were on the last Missenden weekend, it will be possible to do more advanced programming. For those new to PIC Microcontrollers then reading "**PIC in Practice**" by D W Smith, published by Newnes would be advisable.

We will have a programme of presentations during the weekend, so that you will be able to see all the tutors if you wish. The CBUS presentation should not be missed!

This is the 5th **Electronics for Railway Modellers** weekend and the "**Must Attend**" annual event for all those interested in the electrical and electronic side of Railway Modelling. It is an excellent opportunity to meet and spend quality time with members from all over the UK. **Missenden Abbey** provides excellent food, accommodation, free broadband access and is set in very pleasant surroundings. You get a whole weekend free of domestic interference, sponging kids, dogs who need to be walked, gardening or pushing a trolley around Sainsbury's: just uninterrupted modelling among friends!

I look forward to greeting both newcomers and old hands on 7th May.

Christopher Langdon
Course Organizer