

HemiSSon

HemIcdAdaptor

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Registered Trade Mark:

MPLAB: Microchip SA.

Please note:

- The contents of this manual may be changed without prior notification.
- Every effort has been made to ensure the accuracy of this manual.
However, if you do find an error, we would be grateful if you would inform K-Team S.A.
- Notwithstanding the above, K-Team S.A. cannot be held liable for any consequences arising from an error in this manual.
- You will find the latest version of this manual at <http://www.hemisson.com/>

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1 Introduction

The use of a programmer or ICD requires previous knowledge, and for this reason we recommend that you read carefully the user guide for your programmer before continuing to read this manual.

Microchip PIC processors can be programmed using an external programmer with serial protocol. To do this, relatively few signals are required, just the mass, the power supply, the reset signal (MCLR) and two inputs/outputs (RB6 and RB7). Because the Hemisson processor is directly soldered into the printed circuit, HemlcdAdaptor is a tool enabling routing of the required reprogramming signals from one of the Hermisson extension bus connectors to a standard ICD RJ45 connector. In this way it is possible to fully reprogram Hemisson from any PIC16F877 compatible external programmer.

Throughout this manual we will be dealing with the ICDs available from CCS (<http://www.ccsinfo.com/>), but the same applies to any other model with identical connections.

2 Utilisation

2.1 Connecting up Hemisson to the ICD

Before the reprogramming stage, the physical connection between Hemisson and the case of the ICD needs to be made. To do this, begin by connecting up the HemlCdAdaptor module to the ICD, and then connect the whole unit to Hemisson as follows:

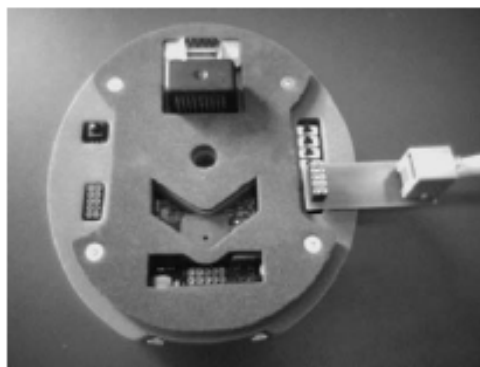


Fig. 2.1 – Connecting to Hemisson

Please note: You must connect the HemlCdAdaptor module to the connector that is next to the Hemisson operating mode selector switches. Under no circumstance should you connect it up to one of the other two connectors.

2.2 Configuring Hemisson

The configuration of the Hemisson interrupter switches is not important, but even so, we recommend that for greater ease of operation you should parameterise Hemisson in basic mode (see the Hemisson User Manual) and then switch it on. (Please note: The battery or accumulator must be inserted beforehand)

2.3 Programming

Now follow your external programmer documentation to select the file for loading and thereby finish reflashing the PIC.

2.4 Start-Up after Reprogramming

Whatever the programmer used, all you need to do is unplug the HemlCdAdaptor adapter from the side of Hemisson to get the processor to restart. The reprogramming of Hemisson is finished.

3 Notes

After reprogramming with an external programmer, it is no longer possible to use the serial port loader module with the Hemisson Uploader software. Reprogramming of this kind does in fact overwrite all the contents of the memory.

If, however, you do want to return your robot to its factory settings, then, using ICD, load the Bootloader.hex file available from the Help Section of the Hemisson website into the memory. Once this file is loaded, you will once again be able to use fast serial protocol loading.

4 RJ45 Connector Detail

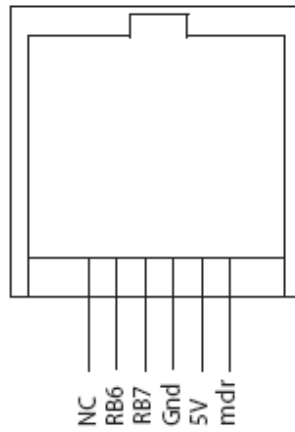


Fig. 4.1 – RJ45 Connector

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