Comes with Linux and CANopen

Hirst Magnetic Instruments (GB) offers a Raspberry Pi board featuring CANopen connectivity. It provides two CAN high-speed interfaces.

Paspberry PI 2 with PiCAN module, battery back-up, and wireless network (Photo: Hirst Magnetic Instruments)

THE RASPBERRY PI IS AN EMBEDDED COMPUTER that runs Linux. “One of the things that makes it so versatile is the access to not only GPIO (general purpose Input/output) but also interfaces such as I2C and SPI, which allow devices to be connected, at high speed, to the processor and then these devices are accessed from the Linux kernel as a device,” explained Dr. Robin Cornelius, technical director of Hirst Magnetic Instruments.

By connecting a CAN transceiver chip to the Raspberry PI, it is possible to get it to become a CAN device. The Linux kernel already supports CAN as part of its networking stack for some time, this just exposes itself like any other network interface and supports all the kernel DMA, buffering and queuing needed for a high-speed interface. One such CAN interface is the PiCAN2 from SK Pang electronics and the latest version supports two CAN interfaces. But others are also available.