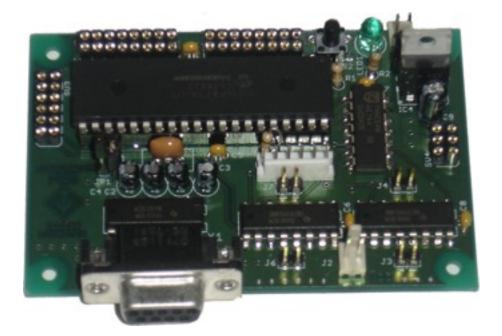The BotBoard05 Pro is an entry-level robotics platform suitable for small hobbyist and educational robotics projects. Powered by an 8-bit microcontroller running at 10 MIPS, the system is configured for low-cost programming, plentiful I/O and an easy-to-use on-board motor controller. Code samples are available through the McMaster IEEE Student Branch website.

Programming

The BotBoard05 Pro is equipped with a serial port for easy programming. Using the Tinybld bootloader from and accompanying PC software, the user can download code using no more than a standard serial cable. In addition, programming and debugging via the Microchip ICD / ICD2 is supported via the ICSP header.

Further Reading

PIC18F4620 Data Sheet,
www.microchip.com

Pricing

IEEE members: $35, non-members: $50

Features

- Powered by a Microchip PIC18F4620 microcontroller

  - 8 bit data path, 16 bit instruction word

  - 10 MHz resonator / 40 MHz clock, 10 MIPS

  - 3968 bytes RAM

  - 1024 bytes data EEPROM

  - 32768 words program Flash

  - On-chip PWM, serial port, ICSP, 13-channel, 10-bit ADC

- I/O

  - 22 I/O lines (20 with serial port)

- On-board 4-channel motor controller with speed control

- Input voltage: 8-12VDC logic, 3-20VDC motor

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