



- **Adds SPI Communications between the PC and Your Arduino**
- **Simulate any SPI Sensor to Assist In Developing your Arduino Code**
- **Use Active Host API to Build Custom SPI Applications**
- **No USB Driver Programming**

The EPT SPI Slave Communications Board is an SPI to USB Translator. It provides Slave SPI bus only. The Arduino provides the SPI bus Master and sends commands and data to the EPT 201X-DB board. These commands and data are decoded and sent to the PC over USB using the Active Host API. The user can develop SPI sensor simulators in software on the PC. The sensor simulator software can respond to commands and send data back to the Arduino over the USB connection via the EPT 201X-DB board.

connection from PC application code through the USB driver to the user CPLD code.



The Hardware

The Earth People Technology USB to Slave SPI system comprises model number EPT 201X-DB-U2. The Hardware consists of a Full Speed (12 Mb/s) USB 2.0 to Slave SPI bus chip from FTDI, the FT220X. The SPI bus can operate at speeds up to 500 Kbytes/sec from the Arduino. The inputs and outputs are +5V compatible.

The Software

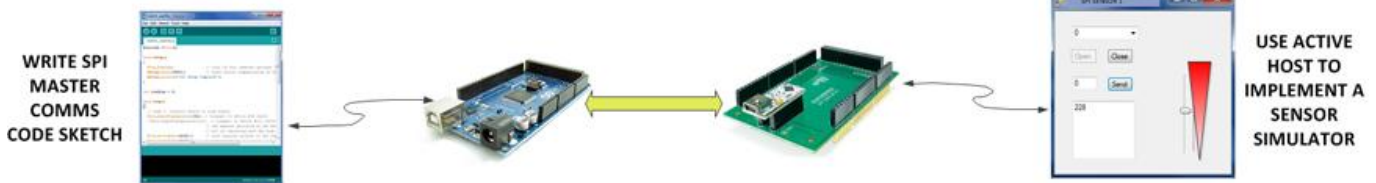
The Active Host SDK is provided as a dll which easily interfaces to application software written in C#, C++ or C. It runs on the PC and provides transparent

User code writes to function calls. Just select the active device and send a byte or block to the SPI device. Immediately after writing to the selected Device, the value is available for the Master device to read out of the SPI chip.



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SPI SLAVE COMMUNICATIONS BOARD FOR THE ARDUINO



The Active Host SDK is designed to seamlessly transfer data from the SPI Slave chip when the Master SPI writes into the chip. It is a transparent receive transfer path made possible by using a callback mechanism. The data seamlessly appears in Host PC memory from the Arduino.