



I2C SLAVE COMMUNICATIONS BOARD FOR THE ARDUINO

- Adds I2C Communications between the PC and Your Arduino
- Simulate any I2C Sensor to Assist In Developing your Arduino Code
- Use Active Host API to Build Custom I2C Applications
- No USB Driver Programming

The EPT I2C Slave Communications Board is an I2C to USB Translator. It provides Slave I2C bus only. The Arduino provides the I2C 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 I2C 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.

The Hardware

The Earth People Technology USB to Slave I2C system comprises model number EPT 201X-DB-U2. The Hardware consists of a Full Speed (12 Mb/s) USB 2.0 to Slave I2C bus chip from FTDI, the FT201X. The I2C bus can operate at speeds up to 3.4 MHz. It supports the typical 100 Kbytes/sec and 400 Kbytes/sec from the Arduino. The inputs and outputs are +5V compatible.

The Software

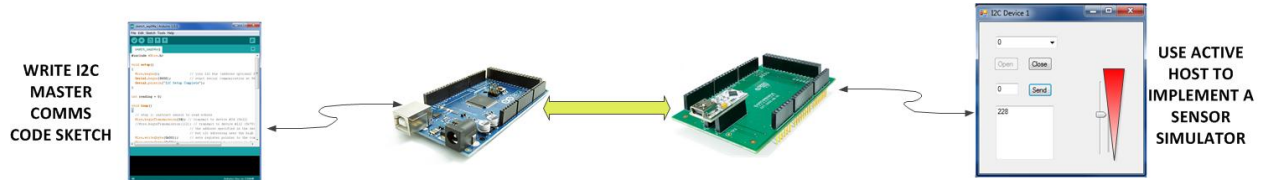
The Active Host SDK is provided as a dll which easily interfaces to application software written in C#, C++ or C. It runs on the PC and provides transparent connection from PC application code through the USB driver to the user CPLD code.



User code writes to function calls. Just select the active device and send a byte or block to the I2C device. Immediately after writing to the selected Device, the value is available for the Master device to read out of the I2C chip.



I2C SLAVE COMMUNICATIONS BOARD FOR THE ARDUINO



The Active Host SDK is designed to seamlessly transfer data from the I2C Slave chip when the Master I2C 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.