SparkFun MicroMod STM32 Processor



STM32 General Features:

- ARM® 32-bit Cortex®-M4 CPU with FPU
 - Adaptive real-time accelerator (ART Accelerator[™]) allowing 0-wait state execution from Flash memory
 - Frequency up to 168 MHz
 - Memory protection unit
 - 210 DMIPS/ 1.25 DMIPS/MHz (Dhrystone 2.1)
 - DSP instructions
- 1 MB of Flash memory
- 192 Kbytes of SRAM including 64 Kbytes of CCM (core coupled memory) data RAM

- Flexible static memory controller supporting Compact Flash, SRAM, PSRAM, NOR and NAND memories
- Clock, reset and supply management
 - $\circ~$ 1.8 V to 3.6 V application supply and I/Os
 - $\circ~$ 32 kHz oscillator for RTC with calibration
 - Internal 32 kHz RC with calibration
- Low-power operation
 - Sleep, Stop and Standby modes
- Debug mode
 - Serial wire debug (SWD) & JTAG interfaces
 - ∘ Cortex-M4 Embedded Trace MacrocellTM
- Advanced connectivity
 - USB 2.0 full-speed device/host/OTG controller with on-chip PHY
 - USB 2.0 high-speed/full-speed device/host/OTG controller with dedicated DMA, on-chip full-speed PHY and ULPI
 - 10/100 Ethernet MAC with dedicated DMA: supports IEEE 1588v2 hardware, MII/RMII

Specific Peripherals available on MicroMod STM32:

- UART
- Two I²C Buses
- SPI Bus
- PDM Audio Processing
- Two Dedicated Analog Inputs, 15 total analog input capable inputs
- Two Dedicated Digital I/O Pins
- Two Dedicated PWM Pins, 24 total PWM capable
- Nine General Purpose I/O Pins