Teach your students to run freely. Unlike barcode systems that create lines. No monthly fees making SPARKY less expensive.

* SPARKY read range 6 feet v. 40 ft for the Orbiter SPIRE.

* For High Schools, the SPARKY Icon may be removed as it is affixed with Velcro and may be re-attached at anytime.

* Kids run single file past Sparky without stopping v. running past in mass with the SPIRE.

* Easy for teachers set up and use, 15 lbs.

* Works well in direct sunlight unlike Bar-codes.

* Easy tag management with trading of tags between classes.

* Handles an entire school. All Teachers. All Students. All Classes.

* Rich reports.

* Times the mile run, split times, and more.

Tags may be traded between students.

Teachers may carry their own tags and issue them at the beginning of each class, and retrieve them at the end of each class.

Optionally, each student may have their own tag too.
**SLING PHYSICAL CHARACTERISTICS**

**Dimensions:** 22” (H) x 15” (L) x 6” (W).

**Weight:** 13.4 lbs (6.08 kg) including batteries.

**Housing Material:** Anti-Static Foam in a Rugged sling bag, plastics.

**Visual Status Indicators:** Multi Color LED’s for power condition and application status.

**Mounting:** Mobile placement with high quality in-line skate wheels with bearings for smooth roll on surface.

**CONNECTIVITY**

**Communications:** Proprietary RF communications to application layer. 10/100 Base T Ethernet (RJ45) w POE support, USB Client (USB Type B), USB Hoist Port (Type A).

**General Purpose**

I/O 2 input, 32 outputs, optically isolated (Terminal Block).

**Power Supply:** POE, POE+ or +24V DC (UL Approved), 120 and 220 AC Marine Plug.

**Antenna Ports:** Standard Multi Ports connected to Orbiter Phased Detect antenna. Optional 4 and 8 port models available for connecting customer selected antennas.

**ENVIRONMENTAL**

**Operating Temp –** Min -23 degrees F (-30.5) Vancouver, BC, Canada, Nov 30, 2015.

**Humidity** 5-95% non-condensing

**Shock and Vibration:** MIL-STD-810G

**REGULATORY COMPLIANCE**

**Safety** UL 60950-01, UL 2043, IEC 60950-1, EN 90950-1

**RF/EMI/EMC** FCC Part 15, RSS 210, EN 302 208, IECES-003 Class B, EN 301 489-1/3, MIC school broadcast, regional pre-approval.

**SAR/MPE** FCC 47CFR2: OET Bulletin 65; EN 50364

**Other:** ROHS, WEEE

**HARDWARE, OS AND Firmware MANAGEMENT**

**Memory** Flash 512 MP, DRAM 256 MP

**Operating System** Linux

**Application Code:** Java

**Firmware Upgrade** Web-based and remote firmware upgrade capabilities

**Management Protocols** RM 1.0.1 (with XML over HTTP/HTTPS and SNMP and NTP

**Network Stack** IPv4 and IPv6

**Security** Transport Layer Security Ver 1.2 FIPS 140

**Air Protocols** EPCglobal UHF Class 1 Gen2 ISO 18000 BC

**Frequency Band** Standard Multi Ports connected to Orbiter Phased Detect antenna. Optional 4 and 8 port models available for connecting customer selected antennas.

**Transmit Power Output** 10 dBm to +31.5 dB, (POE+) 24 volt External DC) +10dBm to +30.0 dBm (POE).

**Max Receive Sensitivity** -82 dBm

**IP Addressing** Static and Dynamic

**HOST Interface Protocol** ORP and LLRP

**API Supported** Host Applications – Java EDK and Net C, Embedded Applications Java SDK

**Warranty** 1 year all parts and labor

**RECOMMENDED SERVICES**

Annual Service and Support includes all parts and labor warranty extension plus automatic software upgrades for 18% of sale price annually.

**Advanced Services** RFID design and world wide deployment including IC tag & antenna design, reader build (LF, HF, NFC, UHF, Microwave, IR), application software for local and cloud scaled for super computers. Global reach with in country technicians to service your needs.