

# Super Fencing System

## SFS-Link-FPA Manual

V1.1

superfencingsystem.com  
superfencingsystem@tuta.com

### About

The SFS-Link-FPA adapter retransmits RS422-FPA protocol scoring machine data over Bluetooth.

### Instructions

1. Plug SFS-Link-FPA DE-9 plug into scoring machine DE-9 socket.
2. Power SFS-Link-FPA with USB-C cable.
3. SFS-Link-FPA will now be discoverable by Super Fencing System.

### Microcontroller LED Functions

**“D4” LED:**           **FLASHES** when scoring machine data is **NOT** detected.  
                          **SOLID** when scoring machine data **IS** detected.

**“D5” LED:**           **OFF** when SFS-Link-FPA is **NOT** connected to Super Fencing System.  
                          **ON** when SFS-Link-FPA **IS** connected to Super Fencing System.

### PCB Components

**Serial Converter:** Common RS485<->3.3V TTL module

**DE-9 Plug:** Amphenol ICC (FCI) D09P33E4GL00LF

**Microcontroller:** ESP32 C3\*

\*AirM2M\_CORE\_ESP32C3 in Arduino IDE

PCB contains lead-free HASL.

Lead-free solder used for soldering PCB components.

### SFS-Link-FPA Bluetooth Protocol V1.0

Bluetooth (BLE) Device Name: “SFS-Link-FPA [S/N]“

Service & Characteristic UUID: "6F000000-B5A3-F393-E0A9-E50E24DCCA9E"

Characteristic is initialized to “NODATA”.

Characteristic is set to “NODATA” when no RS422-FPA data is read for over 1.5 seconds.

Characteristic has read and notify properties.

Characteristic is RS422-FPA serial message.

### USE A HIGH-QUALITY POWER SUPPLY!

**Cheap power supplies (especially cheap ‘power banks’) may result in an intermittent machine connection, or random shutoff of the SFS-Link-FPA.**