PPM Encoder Module

Translates up to eight PWM (pulse width modulation) signals into one PPM (pulse position modulation) signal, allowing you to connect a PWM receiver to a PPM-compatible autopilot over one wire.

Three-wire cable (12 cm)

DF13 three-position to servo cable connects the encoder to the autopilot.

Ten-wire cable (7 cm)

DF13 ten-position to servo cable connects the PWM receiver to the encoder.

Connect a PPM receiver

1. Connect the ten-wire cable to the encoder’s ten-position port.

2. Connect each wire to your RC receiver. Connect the red wire to power, the black wire to ground, and the white wires to channels one through eight as shown below.
3 Connect the three-wire cable to the encoder’s three-position port.

4 Connect the three-wire cable to your autopilot’s input pins.

**Pixhawk**
Connect to RC pins.

- ground (-) black wire
- power (+) red wire
- signal (s) white wire

**PX4**
Connect to signal, power, and ground input pins 1.

- signal (s) white wire
- power (+) red wire
- ground (-) black wire

**APM 2.6**
Connect a PPM jumper (included with APM) to signal pins 2 and 3. Connect three-wire cable to ground, power, and signal pins 1.

- signal (s) white wire
- power (+) red wire
- ground (-) black wire
LED
When powered, the LED indicates the status of the radio signal.

- Slow to fast blinking blue: signal in good health, speed corresponds to throttle channel position
- Very fast to constant blue: throttle channel lost or all channels lost

Configuration
No configuration is necessary to use the PPM encoder out of the box, just connect and power to translate PWM into PPM over one wire. For information on reloading firmware onto the encoder, visit the APM Wiki page here.

The ATmega328p firmware can be downloaded here for planes and rovers and here for copters.

Failsafe configuration
Failsafes can protect your vehicle from loss of radio signal. To learn more about configuring failsafes with your PPM encoder, visit the APM Wiki page here.

Specifications
- ATmega328p microcontroller, firmware upgrade enabled through AVRISP programmer
- 22 x 19 x 5.5 mm (without cables)
- 1.45 g