Pinout ESP8266 (NodeMCU), integrated in sled

WS2812B LED Indicator	GPIO 02
Touchdown Sens	GPIO 14 (With external 10kpullup)
Encoder-A	GPIO 12
Encoder-B	GPIO 13
AS5600 (SDA)	GPIO 04
AS5600 (SCL)	GPIO 05

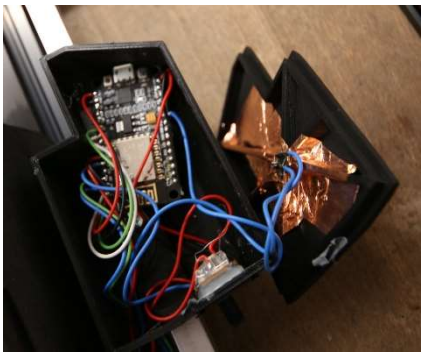

Figure 1 Transmitter

Pinout ESP8266 (NodeMCU), Receiver

Display (SDA)	GPIO 04
Display (SCL)	GPIO 05
Serial1 TX	GPIO 02

Mouse/ Joystick emulating Microcontroller

Serial	Serial1 TX of ESP8266 Receiver

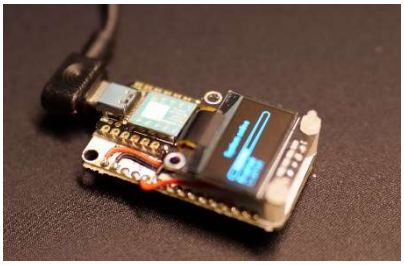

Figure 2 Receiver

Code flow

- Linear encoder readout by interrupt
- Cyclic readout of AS5600 encoder (Every 8ms)
- Updating LED to show state
- Creating data package
- Sending data via ESP-NOW
    - Wait for confirmation of receipt
- Reset delta value (if transmission successful)

- Different turn modes or functions can be selected over serial (example command: ‘2’)
- Checking device state & displaying values
  (Bar on Display is only moving while Error, to safe resources)
- Receiving Data Interrupt
    - Saving Data
- Calculating movement values (Every 5ms)
- Sending those movement values over serial
- Sending movement values over serial1

- Microcontroller like Arduino Leonardo, Teensy, XIAO(Bad) reads serial movement data and converts it into a mouse input or joystick input.