# Iflysims.com

Quick Instructions.
For more information and support please visit iflysims.com.

Thank you for your purchase of the iflysims B-04 Rotary Encoder Board. This Board will allow tuning of frequncies, OBS and other similar functions on you flight simulator or another game type program.

The USB Rotary Encoder Interface Board uses standard HID drivers so no driver install is required, simply plug the Board into the standard USB connection on either your PC or Mac and the computer will automatically detect and install the device.

Connect the B-04-D The device will be recognized as a Game Controller "DAS Rotary Encoder". It is possible to connect multiple boards to increase the number of Rotary Encoders.
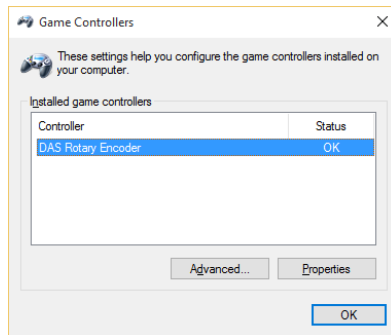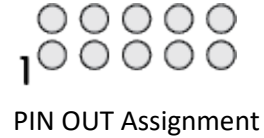

Rotary Encoder

This Board supports only Rotary Encoder which send pulses on each channel (A&B). Rotary Encoders are different from Rotary Switches and Potentiometer devices. This Board Decodes the pulse signal to determine the number of steps and direction of rotation. Normally Rotary Encoders send multiple pulses per detent, this decoder decodes a standard E11 Type Encoder such that each detent will result in in a single pulse to the HID Interface.

Its is important that each Encoder is connected to a "Pair" on the B-04-D Rotary Decoder Board. Connect Ground and each pin of the Encoder (A&B) to each of the pair lines. There are 16 "Pairs" supporting 16 Rotary Encoders.

SIM 1 Connector

PIN OUT Assignment
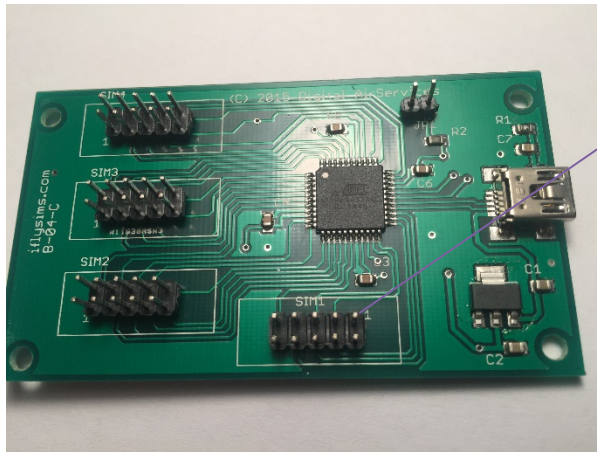
Each Sim Connector is labeled on the Board. There are 4 Sim Connectors labeled SIM 1, SIM 2, SIM 3 and SIM 4.

Each Rotary Encoder must be connected to a "Pair" the (A) and (B) are not so relevant as you will be programming the "Game Button" on the flight simulator program.

ENC # 10 (B) 7/8	ENC #3 (A) 9/10	ENC #3 (B) 9/10	ENC # 2 (A) 11/12	ENC #4 (B) 27/28
GROUND (GND)	ENC #1 (B) 13/14	ENC #1 (A) 13/14	ENC # 2 (B) 11/12	ENC #4 (A) 27/28

SIM 1

ENC #14 (A) 25/26	ENC #14 (B) 25/26	ENC # 13 (A) 1/2	ENC # 13 (B) 1/2	ENC # 12 (A) 3/4
GROUND (GND)	ENC # 10 (A) 7/8	ENC #11 (B) 5/6	ENC # 11 (A) 5/6	ENC # 12 (B) 3/4

SIM 2

*ENC # 9 (B) 19/20	ENC # 8 (A) 21/22	ENC # 8 (B) 21/22	ENC # 7 (A) 15/16	ENC # 7 (B) 15/16
GROUND (GND)	ENC #5 (B) 23/24	ENC #5 (A)	ENC # 6 (B) 17/18	ENC # 6 (A) 17/18

SIM 3

	ENC # 16 (A) 29/30	ENC # 16 (B) 29/30	ENC # 9 (B) 19/20	*ENC # 10 (B) 7/8
GROUND (GND)	ENC # 9 (A) 19/20	ENC # 15 (B) 29/30	ENC #15 (A) 29/30	*ENC #14 (A) 25/26

SIM 4

JP1 is the reset line and should ordinarily have a jumper connected (pulling up). To reset apply ground to pin 1 on JP1.

A   GND   B

Example Connect a Rotary Encoder to ENC #1.

Rotary Encoder	Decoder Board (B-04-D/E)	USB Game HID
A	SIM 1 PIN 3	13/14
GND	SIM 1 PIN 1	
B	SIM 1 PIN 5	13/14

Depending on the direction of turn on the encoder either 13 or 14 will be output. It is recommended that you program the Flight Simulator or game to match the output from the controller after it is installed and wired.

For further details and questions please visit http://iflysims.com or email info@iflysims.com

16 Rotary Encoder Pin Assignments

www.iflysims.com