

Using Beamz As A MIDI Controller

Introduction

The Beamz Controller is a device that provides a control interface to MIDI capable software. The means of bi-directional communication via MIDI messages over USB.

Inbound: The term “inbound” is used to describe messages sent from Beamz a Host computing device, from the viewpoint of the Host.

Communications from Beamz Controller to Host - “Inbound” messages

The following messages will be used to report control object events from the Beamz controller to the Host and as a response to requests from the Host. Each message type will contain a Control Identifier field which will identify the Beamz control object to which the message pertains. Each message type will contain a data field which contains information about the current state or value of the control object.

Button and Laser Response

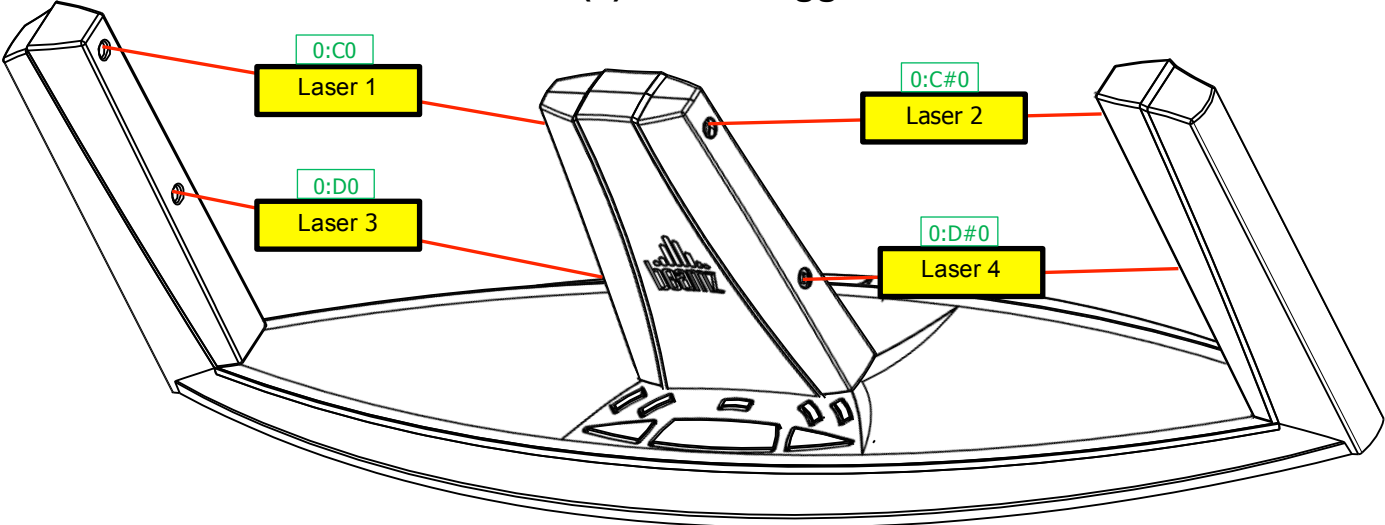
All lasers beams send MIDI Note messages when broken; all buttons should send MIDI Note messages when pressed.

Lasers and Buttons have two states and the transitions between these states will be reported using MIDI note-on (when the button is depressed or the laser beam is broken) and note-off (when the button is released or the laser beam is restored). The field normally associated with note number will be used to specify the Control ID. Note On messages with a velocity of 0 are equivalent to a Note off message.

MIDI messages by Beamz Control:

Control ID	Function	Midi Messages - Bank (1)			
		Ch.	Note	Dec.	Hex
Laser 1	Trigger	0	C0	0	X00
Laser 2	Trigger	0	C#0	1	X01
Laser 3	Trigger	0	D0	2	X02
Laser 4	Trigger	0	D#0	3	X03
Button 1	Trigger	0	E0	4	X04
Button 2	Trigger	0	F0	5	X05
Button 3	Trigger	0	F#0	6	X06
Button 4	Trigger	0	G0	7	X07
Button 5	Trigger	0	G#0	8	X08
Button 6	Trigger	0	A0	9	X09
Button 7	Trigger	0	A#0	10	X0A
Button 8	Trigger	0	B0	11	X0B

Four (4) Laser Triggers



Eight (8) Button Triggers

