ENABLED-CONTROLLER JOYSTICK USER MANUAL

An accessible adaptive switch interface box

Version 1.2

https://github.com/milador/Enabled-Controller

Contents

Usage

The Enabled Controller Joystick can used in different configurations based on the needs of the end user. The Enabled Controller hardware can be used along different software as input device for multiple devices. The hardware allows you connect up to eight input 3.5mm adaptive switches which are marked A,B,C,D,UP,RIGHT,DOWN,LEFT on both circuit board and the enclosure.

Four switches marked as A,B,C,D can be used as input buttons when short pressed and other four switches marked as RIGHT,DOWN,LEFT are used as D-PAD directional buttons.

Table 1 represents all the possible actions for switches and their corresponding led feedback.

Button	XAC	Action	Color
A	X1	Short press	Blue
B	X2	Short press	Yellow
C	A	Short press	Green
D	B	Short press	Red
UP	UP D-PAD	Short press	Orange
RIGHT	RIGHT D-PAD	Short press	Orange
DOWN	DOWN D-PAD	Short press	Orange
LEFT	LEFT D-PAD	Short press	Orange

Table 1: Enabled Controller Joystick switch actions and feedback

The device will blink two times in the color of operating mode when the initialization process is completed and will stay in that color. The led will blink momentary in color of the switch pressed as represented in Table 1 and the led color will go back to the color of operating mode.

The Joystick version is great for usage along computer or for gaming purposes as it's able to simulate an USB joystick device. The Joystick version can operate in different modes as it's represented in Table 2.

Mode Number	Mode	Color
1	Mode 1	Teal

Table 2: Enabled Controller Joystick modes

The Analog AN1 and AN2 four connection input 3.5mm adaptive switches are used to connect joysticks. You can connect a dual axis joystick (X axis and Y axis) to each analog switch connection jack. By default, only AN1 is enabled.

Customization

The Enabled Controller joystick can easily be customized by changing the value of variables at the beginning of Enabled Controller Joystick software. The following variables can be changed for customization purposes:

#define JOYSTICK_DEADZONE 20

The deadzone value of analog joysticks for each axis

#define JOYSTICK_NUMBER 1

The selection of active analog joystick (No Joystick = 0; A1 = 1 , A2 = 2)

#define SWITCH_REACTION_TIME 50

The switch reaction time multiplier between each switch action

#define SWITCH_MODE 1

There's only one switch mode available

#define LED_BRIGHTNESS 100

The brightness of led for mode indication

#define LED_ACTION_BRIGHTNESS 100

The brightness of led for action indication

//Switch properties

const switchStruct switchProperty[] {

   {1,"X1",1,5,5},

   {2,"X2",2,6,3},

   {3,"A",3,7,1},

   {4,"B",4,8,6},

   {5,"M",5,4}   **//D-PAD Direction Buttons**

};

The third column can be changed for customization of led feedback.

//Mode properties

const modeStruct modeProperty[] {

   {1,"Mode 1",8}

};

The third column can be changed for customization of led feedback.

```
const colorStruct colorProperty[] {
    {1,"Green",{0,50,0}},
    {2,"Pink",{50,00,20}},
    {3,"Yellow",{50,50,0}},
    {4,"Orange",{50,20,0}},
    {5,"Blue",{0,0,50}},
    {6,"Red",{50,0,0}},
    {7,"Purple",{50,0,50}},
    {8,"Teal",{0,128,128}}
};
```