

IOCard Manual

USBaxes

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INTRODUCTION

The USBAxes card has been design to manage upto 5 analogue axis and 24 buttons.

The operating system recognizes the card as a joystick with 3 additional axes and 24 buttons, not needing additional software and/or drivers.

The axis and buttons can be assigned on each program for which you would like to use it (MS Fsimulator, X-plane, etc.)

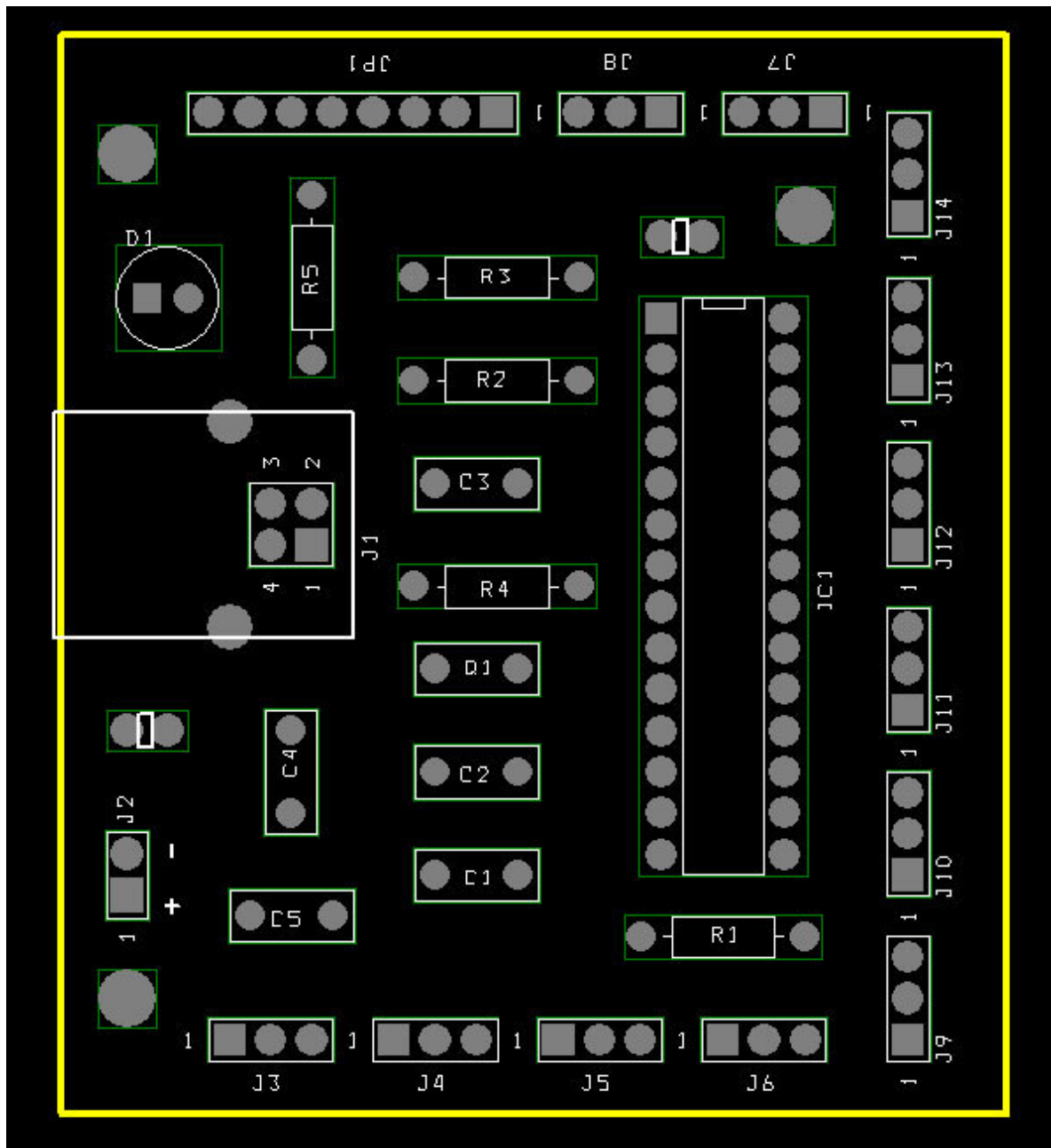
TECHNICAL SPECIFICATIONS

- USB Connection
- Capacity to connect up to 5 analogue 8-bit axis.
- Capacity to connect up to 24 buttons (multiplexed in 3 groups of 8).

COMPONENTS LIST

C1	= Condensers 220nf
C2,C3	= Condensers 22Pf
C4,C5	= Condensers 0,1uF
D1	= Diode LED
IC1	= Microcontroller 16C745
J1	= Connector USB
J2	= 2 pins Power supply connector
J3 a J14	= 3 pins connectors
Q1	= Crystal 6MHZ
R1	= Resistor 1K5
R2	= Resistor 10K
R3	= Resistor 100R
R5	= Resistor 470R
SW1	= Reset connector (2 pins).
Other components	= *Not connected, future options*

CONNECTIONS



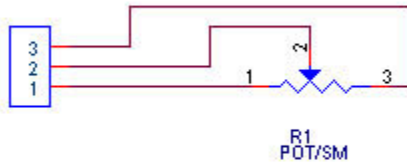
- J1 = Connector USB.
- J2 = Power Supply Input.
- J3 – J7 = Analogue Axis.
- J8 – J14, y JP1 = Used for the buttons.

J3 a J7 – Analogue Axis

Pin 1 = GND

Pin 2 = Data

Pin 3 = +5V



POTENCIOMETRO 10K

J8 to J14 – Buttons and pin 9 JP1

Pin 1 = Not used

Pin 2 = Data

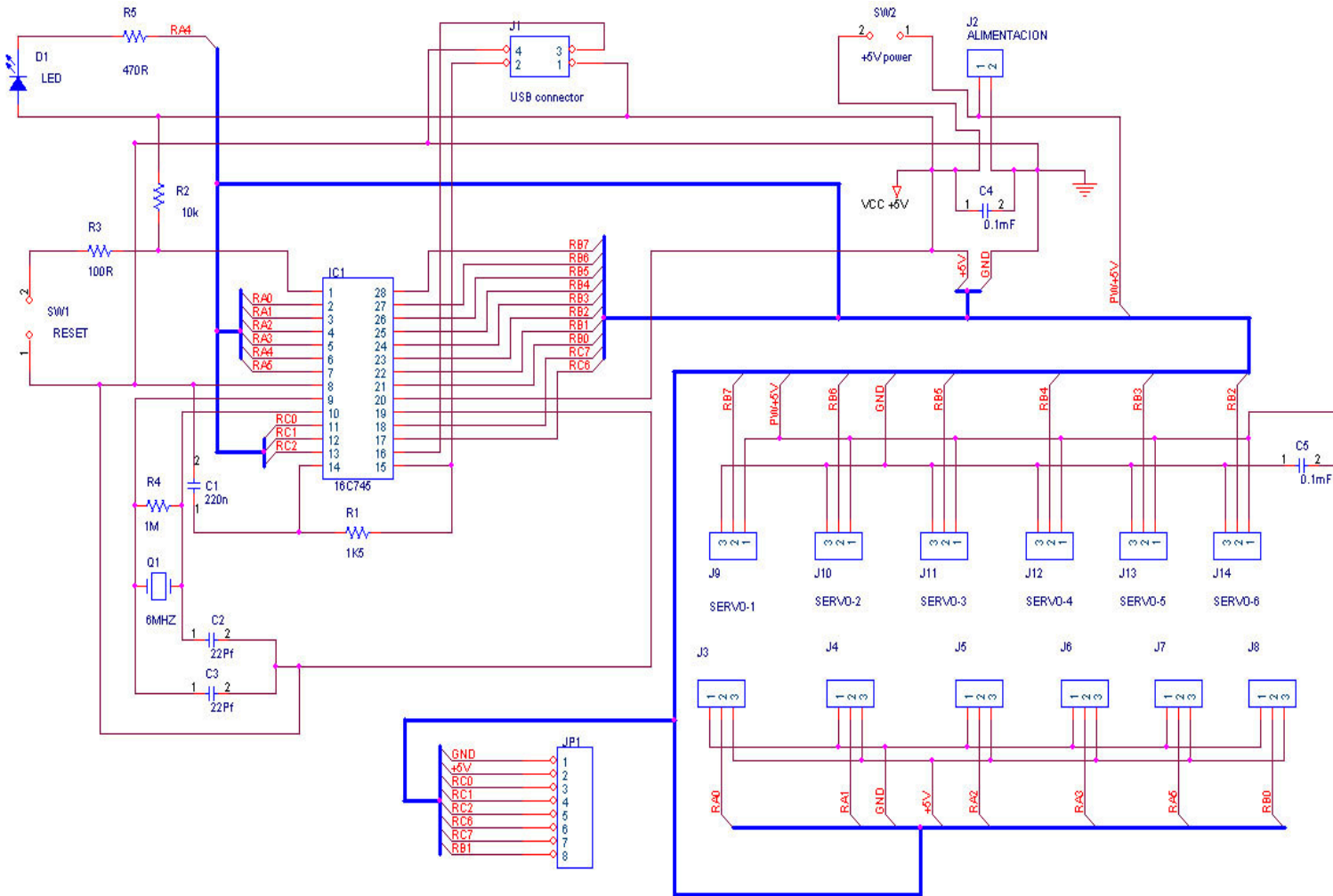
Pin 3 = Not used.

J2 – Output External Power Supply +5V. (Do not connect to another power supply)

Pin 1 = +5V

Pin 2 = GND

CARD SCHEMATIC



BUTTONS CONNECTIONS

B1 = Pin 2, J8
B2 = Pin 2, J9
B3 = Pin 2, J10
B4 = Pin 2, J11
B5 = Pin 2, J12
B6 = Pin 2, J13
B7 = Pin 2, J14
B8 = Pin 9, JP1

G1 = Pin 3, JP1
G2 = Pin 4, JP1
G3 = PIN 5, JP1

To activate the buttons you only need to connect any B with any G

B1 with G1, B1 with G2, B8 with G3, ...

$8 \times 3 = 24$ buttons.

SOFTWARE

When connecting the card to the computer, the operating system will automatically recognize it as joystick device. No additional software is needed.

To calibrate the axis, we need to use the control panel and configure them as a joystick.

We then can configure it within MS FlightSimulator all the axis and buttons and if you have a registered copy of FSUIPC, then you'll find additional advanced configuration options.

For X-Plane and other simulators or programs, the assignation must be done on their appropriate input device configuration menu.