An Arduino guide

For the CUB1

Purpose of this guide

This is an arduino guide for the CUB 1 in the Lynx.dk product line of plug and play accessories.

The CUB1 is a button only box, equipped with 2 push buttons, 3 ON-OFF-ON switches and 12 ON-OFF switches.

Tthe code is designed to give an impulse when the switches are turned ON and again when they are turned OFF, so the switches acts like push buttons on a regular joystick.

The CUB1 is made with an Arduino compatible Leonardo Board. When plugged into the computer it will be connected as an Arduino Leonardo game controller.

The CUB1 comes in different versions from Lynx.dk

You can get a fully plug and play ready from the box model with code 3 preinstalled on the Arduino.

You can buy a Leonardo board from Lynx.dk with preinstalled code for the DYI set.

If you want to use your own Leonardo board or update a preinstalled in the CUB this guide goes through how to install and upload to your Leonardo board.

IMPORTANT:

Installing or changing program is at your own risk, we do not compensate or refund for any damaged parts caused by meddling with the Arduino or the code.

The code is freeware and is uploaded at your own risk.

Inadept upload of a program to the Leonardo board, can cause it to brick (make it unable to upload new code and not work afterwards)

Lynx.dk cannot be held responsible for any use of this guide and any malfunctions or errors that might occur from the use of this guide.

Arduino Installation

First thing you have to do is install Arduino IDE on your computer.

Downloaded from the following link:

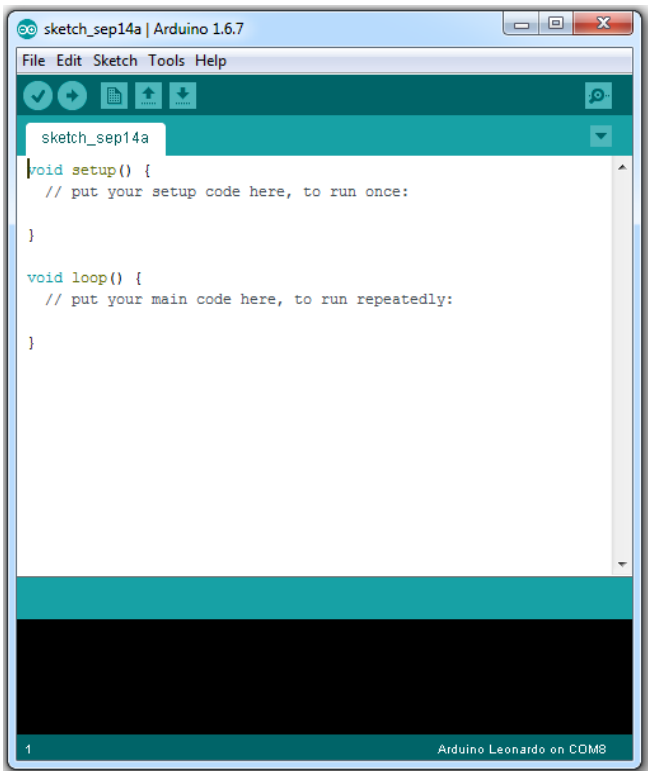
https://www.arduino.cc/en/Main/Software

This guide is shown using Windows.

In order for the code to work you need Arduino IDE version 1.6.6 or later, so if you already have installed an older version, you need to upgrade the Arduino IDE.

Arduino IDE is the programming and uploading software for your boards, in this guide we are using it to upload a complete code to the Leonardo board.

Open Arduino IDE and it should look like this.



The code uses something called libraries, in order to get the code working for the CUB1 you need to download a joystick library.

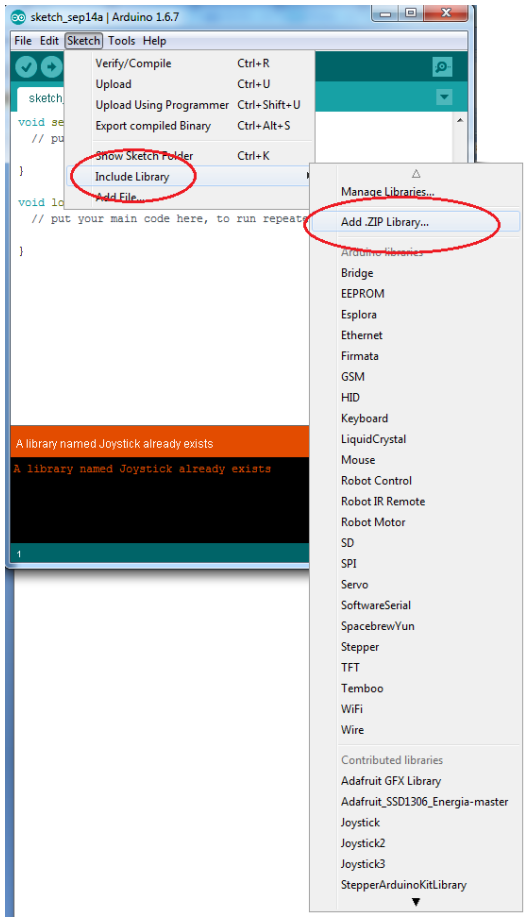
The joystick library can be downloaded using the following link:

http://lynx.dk/cub-firmware/

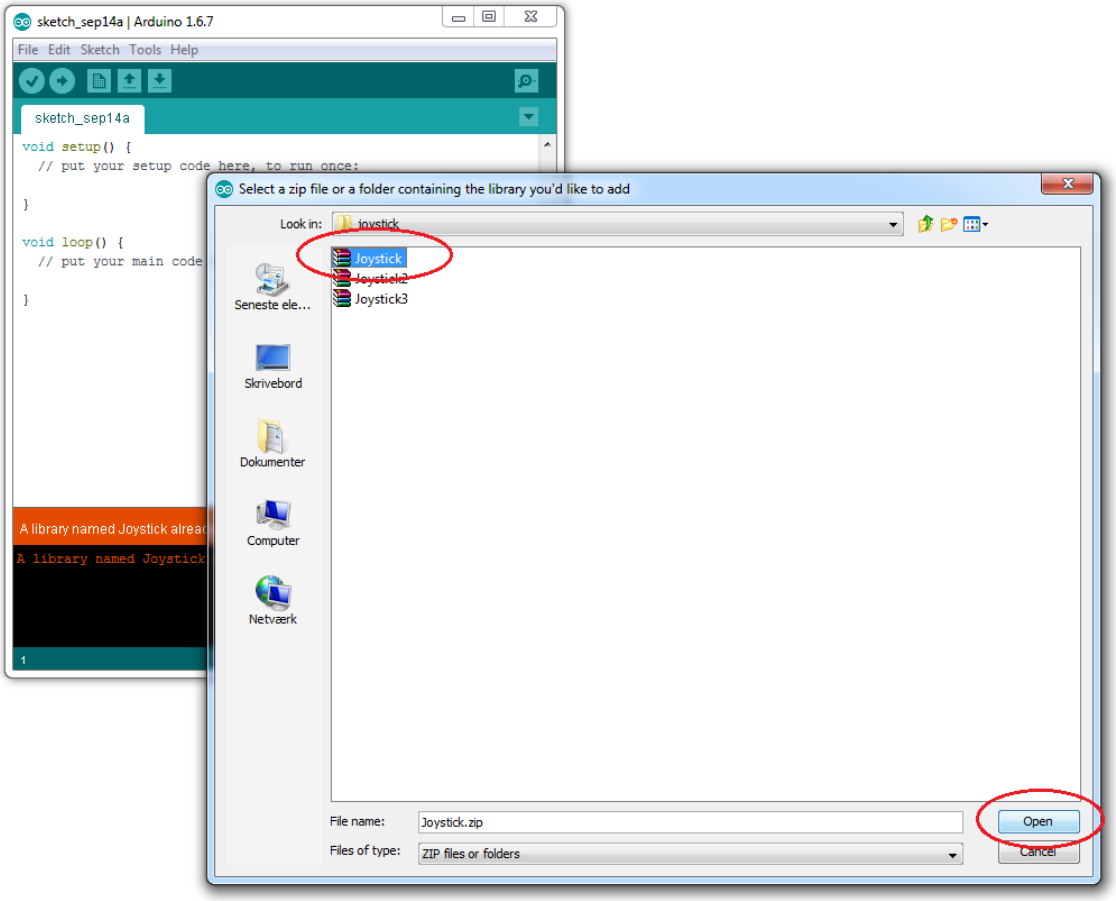
Save it to your computer so you can find it again.

In the Arduino IDE, you go to the top menu.

Sketch -> Include Library -> Add .ZIP library



Now a window pop up, locate the location you downloaded the joystick library and select it and click open.



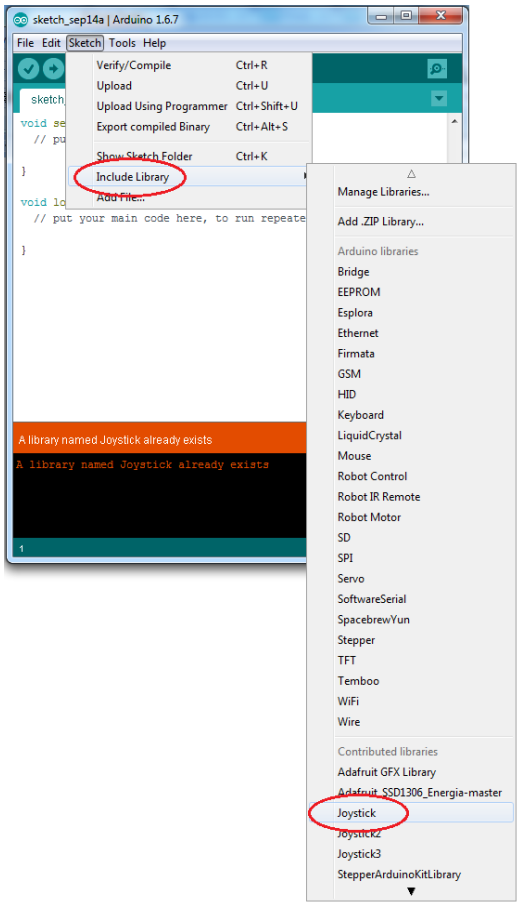
Now the library should be included in your Arduino IDE software.

You can check by going to:

Sketch -> Include Library ->

In the list of libraries, it should be in the bottom of the list under the group contributed libraries

Arduino IDE should now be ready to upload a working program to the Leonardo board



Upload program

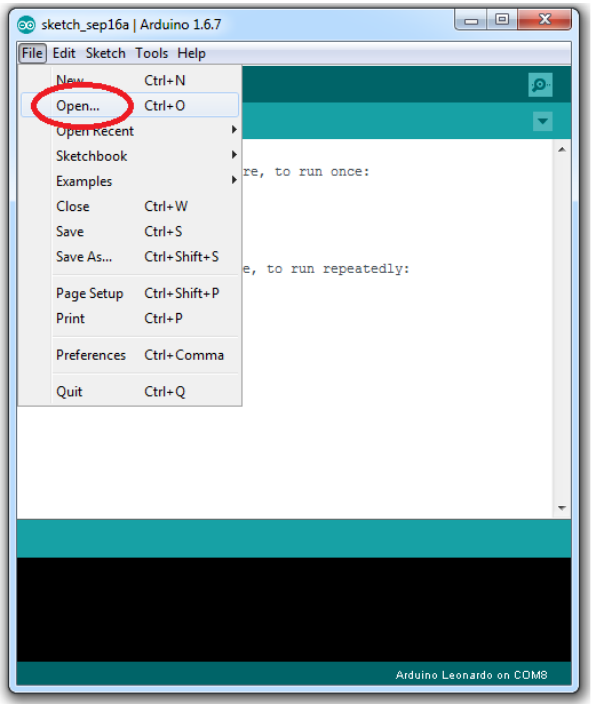
First thing is to choose and download the code you want to install.

The codes can be downloaded here:

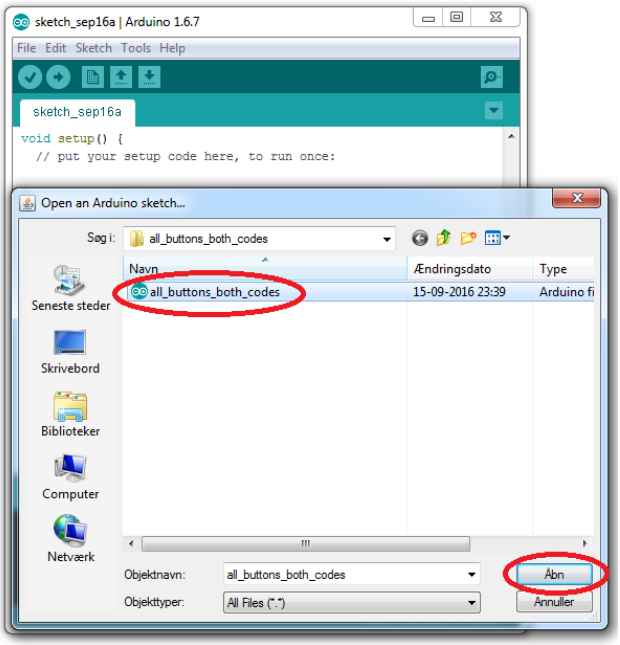
http://lynx.dk/cub-firmware/

Connect the cub to the computer andstart the Arduino IDE program and choose:

File -> Open

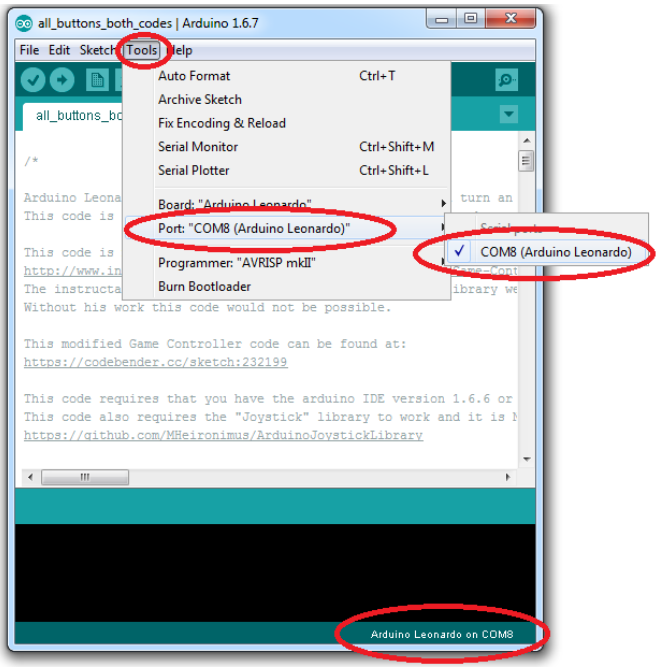


Locate the program you downloaded and want to upload and open it



When the program is selected you need to choose the port the Leonardo is connected to.

Tools -> Port: -> choose the Leonardo you connected

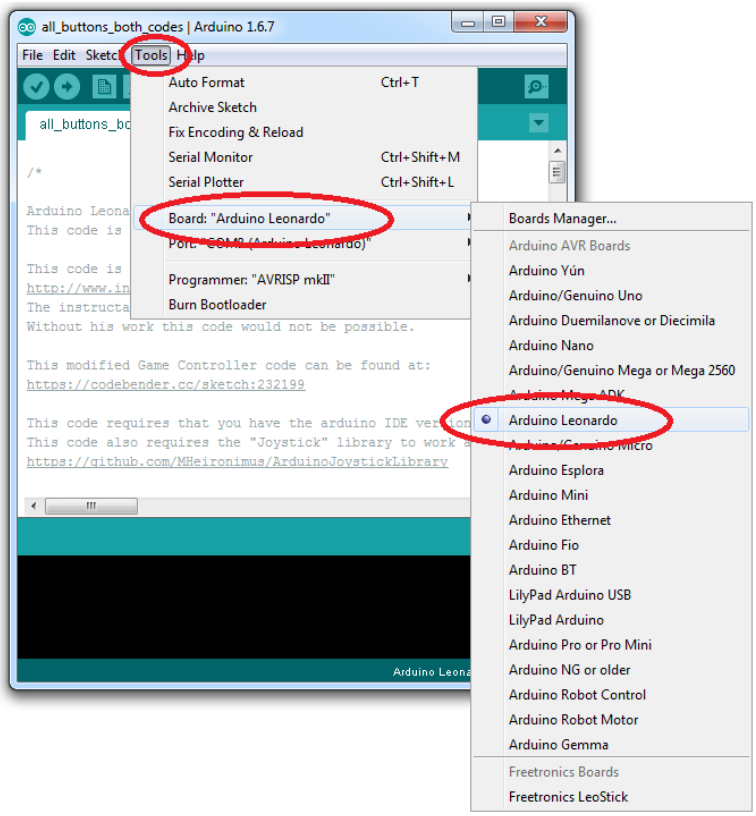


If you have connected more than one Arduino, these will also appear on the list, make sure to select the right one, if in doubt, disconnect the other Arduinos.

When selected, the port should be shown in the lower right corner.

After the port is selected you need to choose the Arduino Leonardo board, so the program can communicate correctly with the board.

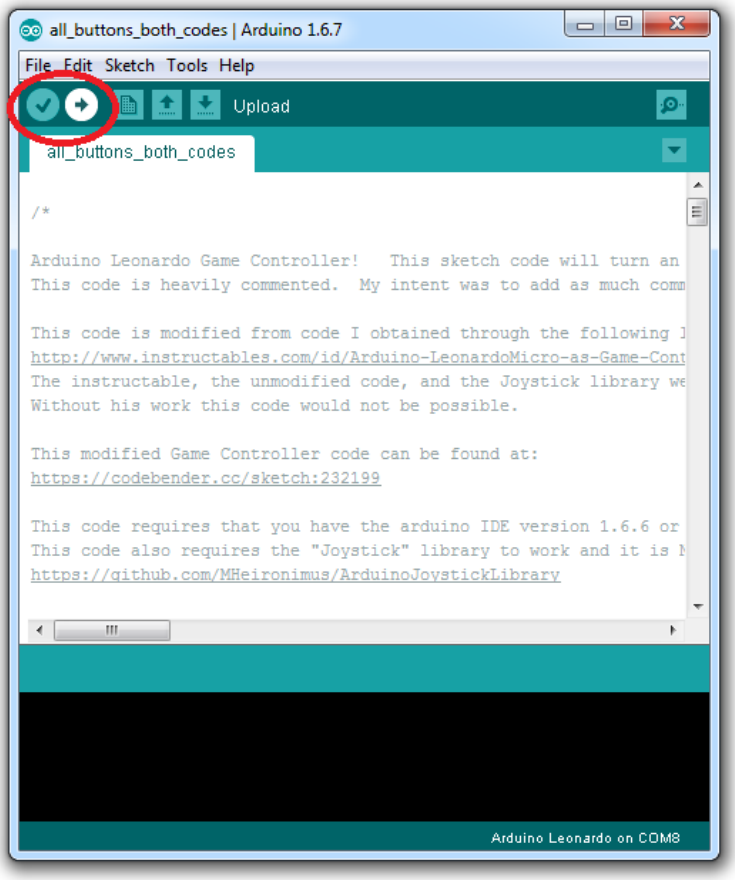
Tools -> Board: -> Arduino Leonardo



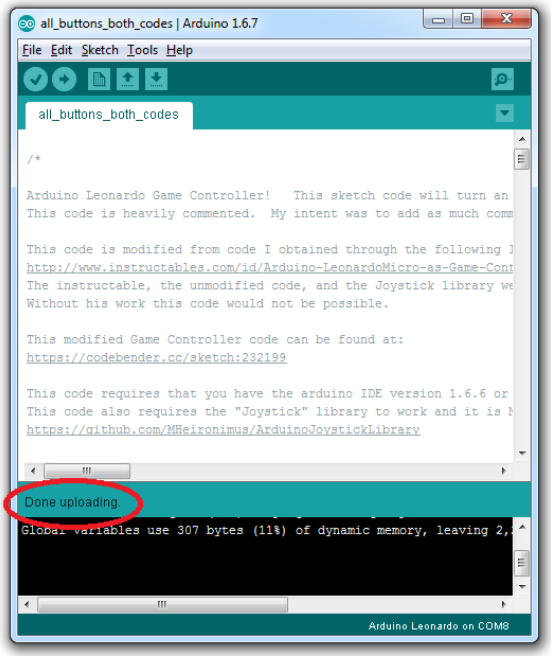
Now you are ready upload the program, you can check the program for errors by pressing the

There should be no errors, if there is you have accidently or on purpose changed in the code. If it comes with an error try download a new copy of the program.

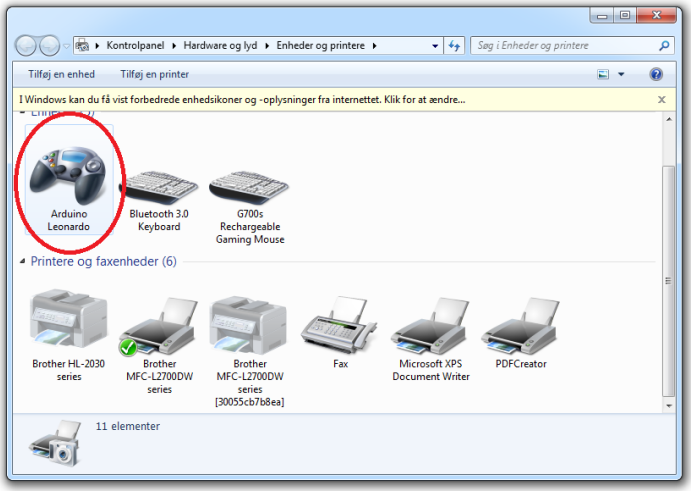
When you are ready to upload you click the right arrow



If the upload is successful is should say "Done Uploading." In the lower left corner

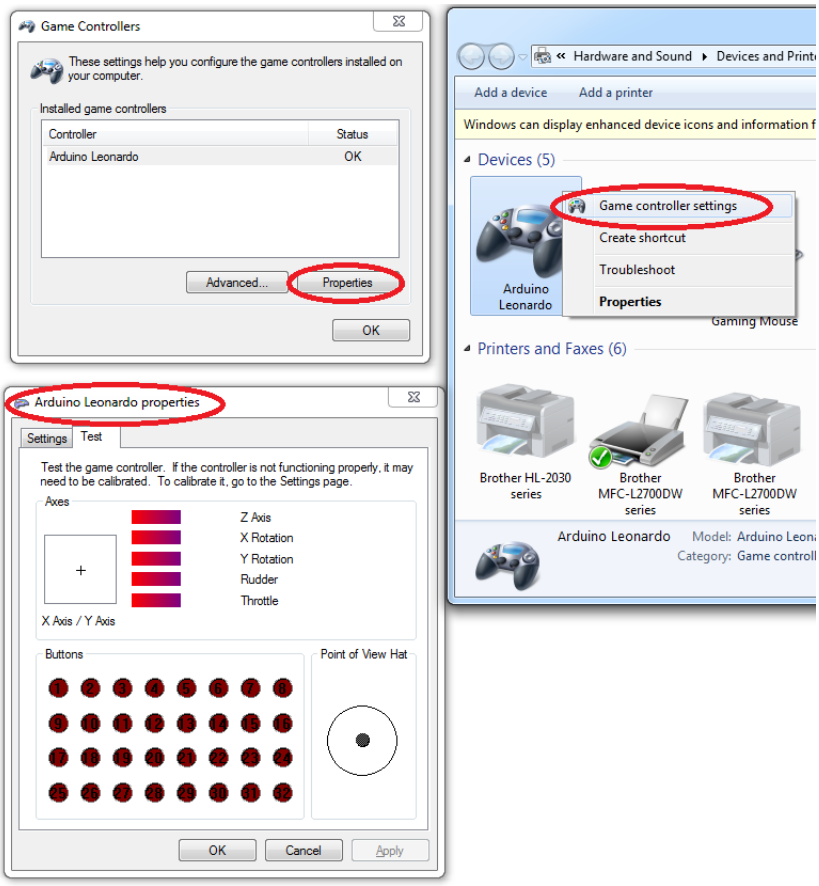


In "Devices and Printers" in windows, you should be able to see a Arduino Leonardo game controller


Kontrolpanel ▸ Hardware og lyd ▸ Enheder og printere ▸
Søg i Enheder og printere
Tilføj en enhed
Tilføj en printer
I Windows kan du få vist forbedrede enhedsikoner og -oplysninger fra internettet. Klik for at ændre...
Arduino Leonardo
Bluetooth 3.0 Keyboard
G700s Rechargeable Gaming Mouse
Printere og faxenheder (6)
Brother HL-2030 series
Brother MFC-L2700DW series
Brother MFC-L2700DW series [30055cb7b8ea]
Fax
Microsoft XPS Document Writer
PDFCreator
11 elementer

You can test the controller by right clicking and choose "Game controller setting"

In the new windows you click "properties" and the "Arduino Leonardo Properties" windows pops up and here you can test the function of all the buttons on the CUB 1



The red squares light up when activated with the number corresponding to the switch/button activated.

Now the CUB 1 should be ready to be assigned to any game and ready to use.