

BlueRetro

Wireless Controller Adapter For Dreamcast console



PS3



PS4



PS5



WII & WIIU PRO



8BITDO



RETRO-BIT



XBOX ONE S



XBOX SERIES X/S



SWITCH JOYCON



SWITCH PRO



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BlueRetro

This device is a wireless controller adapter for Dreamcast consoles, compatible with the best-selling Bluetooth controllers on the market.

Based on the open source project [darthcloud] (<https://github.com/darthcloud/BlueRetro>), built-in the popular ESP32 chip.

Support PS3 / PS4 / PS5 / Xbox One S / Xbox Series X|S / Wii / Wii U Pro / Switch Pro / Switch Joycon / 8bitdo / Retro-Bit Wireless Controller, etc.

Features

- 1) Only suitable for Dreamcast console.
- 2) Up to 4 Bluetooth controllers can be connected and paired simultaneously.
- 3) Multi-function reset button, Support firmware updatable.
- 4) Almost zero latency, the PS4&PS5 controller less than 6ms of latency using BlueRetro.
- 5) Compatible Xbox One S/Xbox Series X|S/Wii / Wii U Pro/Switch Pro / Switch Joycon /8bitdo /Retro-Bit PS3/PS4/PS5 Wireless Controller.
- 6) The key value of the buttons can be configured through the web bluetooth port of the Google Chrome.

BlueRetro LED status

Four color indicator LEDs

- Red led on: NO.1 wireless controller connected
- Green led on: NO.2 wireless controller connected
- Orange Led on: NO.3 wireless controller connected
- White Led on: NO.4 wireless controller connected

Power LED

- FULLY ON: Power on



SYNC LED

- FULLY ON: Bluetooth failure
- OFF: Bluetooth connected successfully
- Pulsing: Searching wireless controller



BlueRetro buttons usage

"EN" Button

- Reset Blueretro

"BOOT" Button

- Short press: Disconnect all Bluetooth devices and start the new pairing.
- 3 sec hold: Enable Bluetooth inquiry mode (Keep connected devices and start new pairing).
- 10 sec hold: Restore to default configurations and clear BT pairing keys.



Controller connection description

NOTE: After the first controller is successfully connected, press and hold "BOOT" for three seconds to start the pairing of the new controller

- NO.1 wireless controller connected, the red led fully on
- NO.2 wireless controller connected, the green led fully on
- NO.3 wireless controller connected, the orange led fully on
- NO.4 wireless controller connected, the white led fully on



USB Type-c introduction



This "Type-c" interface is used to power the blueretro device and upgrade firmware. Please go to page "16" for the upgrade tutorial.

Pairing with PS4 or PS5 controller

First time pairing

- 1) Boot up BlueRetro and make sure adapter is in inquiry mode ("SYNC" LED pulsing).
- 2) Hold down "Share" button (PS4) or "Create" button (PS5) and "PS" button of the controller simultaneously until the light bar flash blink.



Press and hold "Share" or "Create" & "PS" button
(Bluetooth Inquiry Mode Enable)

Successful pairing

- 1) For BlueRetro adapter: The "SYNC" LED light off.
- 2) For PS4 or PS5 controller: The light bar fully on.



Reconnect

Simply hold down the "PS" button on the PS4 or PS5 controller until the Bluetooth function is activated. Then it will reconnect to BlueRetro adapter automatically.

Pairing with Xbox One S, Series X|S controller

As of v1.2.1 the minimum required Xbox FW for controller are:
Xbox One S: 4.8.1923.0 Adaptive: 4.5.1680.0 Series X|S: 5.9.2709.0
Update via the [Xbox accessories Win10 app](#).
(<https://apps.microsoft.com/store/detail/9NBLGGH30XJ3?hl=en-us&gl=US>)

For details of the update procedure, please visit on:
(<https://support.xbox.com/en-US/help/hardware-network/controller/update-xbox-wireless-controller>)

First time pairing

- 1) Boot up BlueRetro and make sure adapter is in inquiry mode ("SYNC" LED pulsing).
- 2) Power on controller via "Xbox" button and then hold the black "SYNC" button until the LED of "Xbox" button flash rapidly.



Press and hold Black "SYNC" button
(Bluetooth Inquiry Mode Enable)

Successful pairing

- 1) For BlueRetro adapter:
The "SYNC" LED light off.
- 2) For Xbox One S, Series X|S
& Adaptive controller:
The LED of "Xbox" button
comes to constant.



Reconnect

Simply hold down the "Xbox" button on the controller to power on.
Then it will reconnect to BlueRetro adapter automatically.

Pairing with Wii & WiiU Pro controller

First pairing

- 1) Boot up BlueRetro and make sure adapter is in inquiry mode
("SYNC" LED pulsing).
- 2) Press red "SYNC" button, then the four lights flash.
- 3) LEDs will stop blinking on controller once pairing is complete.



Press and hold red "SYNC" button
(Bluetooth Inquiry Mode Enable)

Successful pairing

- 1) For BlueRetro adapter:
The "SYNC" LED light off.
- 2) For Wii & WiiU Pro controller:
The first light fully on.



Led fully on

Reconnect

Simply press power button on the controller. Then it will reconnect to BlueRetro adapter automatically.

Pairing with Switch Pro & Joycon

First time pairing

- 1) Boot up BlueRetro and make sure adapter is in inquiry mode ("SYNC" LED pulsing).
- 2) Press and hold the "SYNC" button on the top of the gamepad until the indicator on the underside of the pad starts flashing back and forth.



Successful pairing

- 1) For BlueRetro adapter: The "SYNC" LED light off.
- 2) For Switch Pro & Joycon controller: The first light on the left fully on.



Reconnect

Simply press any button on the controller. Then it will reconnect to BlueRetro adapter automatically.

Pairing with 8bitdo controller

As of v1.2.1 the minimum required 8bitdo FW for controller are:

SF30: v1.37 Gbros adapter: v2.25

Update via the [8bitdo Win10 app](#).

(<https://apps.microsoft.com/store/detail/9NBLGGH30XJ3?hl=en-us&gl=US>)

For details of the update procedure, please visit on:
(<https://support.8bitdo.com/firmware-updater.html>)

First time pairing

- 1) Boot up BlueRetro and make sure adapter is in inquiry mode ("SYNC" LED pulsing).
- 2) Power up 8bitdo controller in Xinput mode, then LED 1 will start to blink. ("Start + X" button or set switch to X) **(Only supported in Xinput mode!)**.

Set switch to X
(Turn on Xinput mode)



- 3) Press and hold "SYNC" button until LED starts flashing back and forth.



Press and hold "SYNC" button
(Bluetooth Inquiry Mode Enable)

Successful pairing

- 1) For BlueRetro adapter: The "SYNC" LED light off.
- 2) For 8bitdo controller: The first light on the left fully on.



Reconnect

Simply press start button on the controller. Then it will reconnect to BlueRetro adapter automatically.

Pairing with Retro-Bit controller

First time pairing

- 1) Boot up BlueRetro and make sure adapter is in inquiry mode ("SYNC" LED pulsing).
- 2) Power up Retro-Bit controller in Xinput mode ("Home + X"), then LED starts flashing back and forth. **(Only supported in Xinput mode!).**



Press and hold "HOME+X" button
(Bluetooth Inquiry Mode Enable)

Successful pairing

- 1) For BlueRetro adapter: The "SYNC" LED light off.
- 2) For Retro-Bit controller: The LED fully on.



Reconnect

Simply press "Home" button on the controller. Then it will reconnect to BlueRetro adapter automatically.

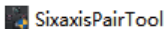
Pairing with PS3 controller

NOTE: Only official PS3 controllers are supported.

First time pairing

Windows

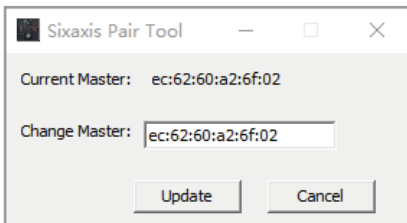
- 1) Download and install [Sixaxis Pair Tool](https://sixaxispairtool.en.lo4d.com/windows).
(<https://sixaxispairtool.en.lo4d.com/windows>)



- 2) Connect the BlueRetro adapter to PC or phone to get BD ADDR (MAC address). (Make sure your converter is plugged into the console or connected to the USB cable for power)
 - Open (<https://blueretro.io/>) in a chrome web browser. (Windows PC)
 - Navigate to "BlueRetro System Manager".
 - Click on "Connect BlueRetro".
(Make sure your PC had built-in Bluetooth compatibility or a Bluetooth dongle plugged in.)
 - The BD ADDR of your BlueRetro will be displayed when connected. Write it down.



- 3) Use USB cable to connect your PS3 controller to PC .
- 4) Launch Sixaxis pair tool and enter BD ADDR into the Change Master.
- 5) Click update. (Once the update is complete the controller can be disconnected from the PC.)



- 6) Insert your BlueRetro adapter into your console to boot up BlueRetro. (Make sure adapter is in inquiry mode ("SYNC" LED pulsing)).

- 7) Hold down the "PS" button on your controller until the four red lights on top of the DualShock 3 flashing.



Press and hold the "PS" button
(Bluetooth Inquiry Mode Enable)

Successful pairing

- 1) For BlueRetro adapter: The "SYNC" BLUE LED fully on.
- 2) For PS3 controller: The four red lights on top of the DualShock 3 fully on.

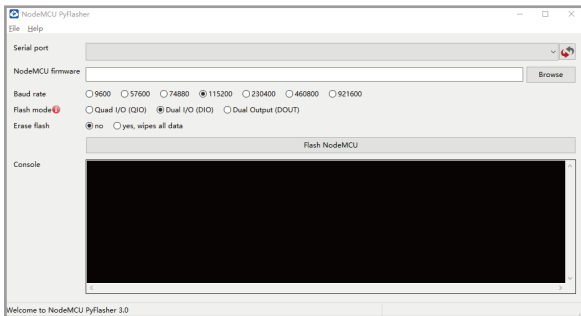


Reconnect

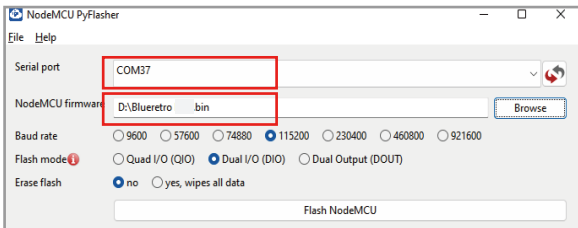
Simply hold down the "PS" button on the PS3 controller until the Bluetooth function is activated. Then it will reconnect to BlueRetro adapter automatically.

Firmware update

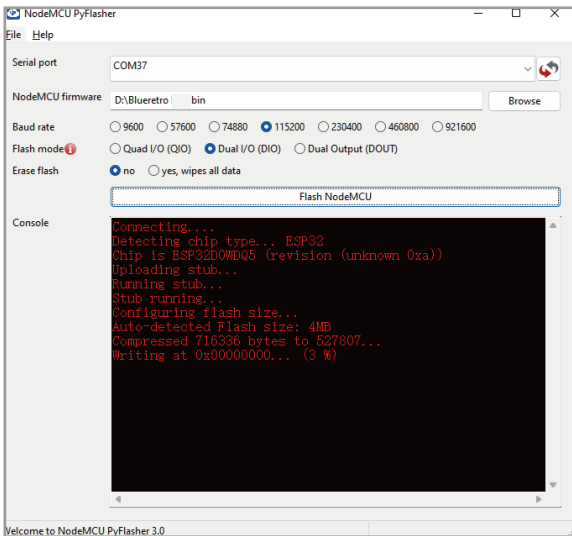
- 1) Download the "NodeMCU-PyFlasher"
(<https://github.com/marcelstoer/nodemcu-pyflasher>)
BlueRetro firmware
(<https://github.com/RetroScaler/DC-Blueretro>)
- 2) Execute NodeMCU-PyFlasher.exe .



- 3) Connect Blueretro to computer using type-c cable. Select proper COM port for your computer. And choose the latest BlueRetro firmware.



4) Click Flash NodeMCU. Then wait for the burning to complete.



Buttons mapping reference

Dreamcast	PS3	PS4/PS5	Xbox One/SIXS	Steam
Left stick left	Left stick left	Left stick left	Left stick left	Left trackpad left
Left stick right	Left stick right	Left stick right	Left stick right	Left trackpad right
Left stick down	Left stick down	Left stick down	Left stick down	Left trackpad down
Left stick up	Left stick up	Left stick up	Left stick up	Left trackpad up
Right stick left	Right stick left	Right stick left	Right stick left	Right trackpad left
Right stick right	Right stick right	Right stick right	Right stick right	Right trackpad right
Right stick down	Right stick down	Right stick down	Right stick down	Right trackpad down
Right stick up	Right stick up	Right stick up	Right stick up	Right trackpad up
Left D-pad left	D-pad left	D-pad left	D-pad left	Stick left
Left D-pad right	D-pad right	D-pad right	D-pad right	Stick right
Left D-pad down	D-pad down	D-pad down	D-pad down	Stick down
Left D-pad up	D-pad up	D-pad up	D-pad up	Stick up
Right D-pad left		Mute		Left trackpad click
Right D-pad right				Right trackpad click
Right D-pad down				
Right D-pad up				
X	Square	Square	X	X
B	Circle	Circle	B	B
A	X	X	A	A
Y	Triangle	Triangle	Y	Y
Start	Start	Options	Menu	Start
D	Select	Share	View	Steam
	PS	PS	Xbox	Stick click
L	L2	touchpad	Share	Analog LT
Z	L1	L1	LT	LB
			LB	Analog RT
				RB
R	L3	L3	Left stick right	
	R2	R2	RT	
C	R1	R1	RB	
	R3	R3	Right stick click	

Dreamcast	Wiimote	Wiimote + Classic	Wiimote + nunchuck	WiU Pro	Switch Joycon
Left stick left	[C] Left stick left	[C] Left stick left	[N] stick left	Left stick left	Stick left (H)
left stick right	[C] Left stick right	[C] Left stick right	[N] stick right	Left stick right	Stick right (H)
Left stick down	[C] Left stick down	[C] Left stick down	[N] stick down	Left stick down	Stick down (H)
Left stick up	[C] Left stick up	[C] Left stick up	[N] stick up	Left stick up	Stick up (H)
Right stick left	[C] Right stick left	[C] Right stick left		Right stick left	
Right stick right	[C] Right stick right	[C] Right stick right		Right stick right	
Right stick down	[C] Right stick down	[C] Right stick down		Right stick down	
Right stick up	[C] Right stick up	[C] Right stick up		Right stick up	
Left D-pad left	D-pad left (H)	[C] Right stick up	[W] D-pad left (V)	D-pad left	
Left D-pad right	D-pad right (H)	[C] Right stick up	[W] D-pad right (V)	D-pad right	
Left D-pad down	D-pad down (H)	[C] D-pad down	[W] D-pad down (V)	D-pad down	
Left D-pad up	D-pad up (H)	[C] D-pad up	[W] D-pad up (V)	D-pad up	
Right D-pad left		[W] D-pad left (H)			
Right D-pad right		[W] D-pad right (H)			
Right D-pad down		[W] D-pad down (H)			
Right D-pad up		[W] D-pad up (H)			
X	1	[C] Y	[W] 1	Y	B or D-pad up
B	2	[C] A	[W] 2	A	X or D-pad down
A	2	[C] B	[W] A	B	A or D-pad left
Y	A	[C] X		X	Y or D-pad right
Start	"*" "+"	[C] "*" "+"		"*"	"*" or Capture
D	"-" "	[C] "-" "		"-" "	"-" or Home
	Home	[C] Home		Home	
		[W] B			
L		[C] Analog L	[N] Z	ZL	SL
Z		[C] ZL	[N] C	L	L or R
		[C] Digital L			
		[W] 1		Left stick click	Stick click
R		[C] Analog R	[W] B	ZR	SR
C		[C] ZR		R	ZL or ZR
		[C] Digital R			
		[W] 2		Right stick click	

Dreamcast	Switch Pro	Switch NES	Switch SNES	SW MD/Genesis	Switch N64
Left stick left	Left stick left				Stick left
Left stick right	Left stick right				Stick right
Left stick down	Left stick down				Stick down
Left stick up	Left stick up				Stick up
Right stick left	Right stick left				C-Left
Right stick right	Right stick right				C-Right
Right stick down	Right stick down				C-Down
Right stick up	Right stick up				C-Up
Left D-pad left	D-pad left	D-pad left	D-pad left	D-pad left	D-pad left
Left D-pad right	D-pad right	D-pad right	D-pad right	D-pad right	D-pad right
Left D-pad down	D-pad down	D-pad down	D-pad down	D-pad down	D-pad down
Left D-pad up	D-pad up	D-pad up	D-pad up	D-pad up	D-pad up
Right D-pad left					
Right D-pad right					
Right D-pad down					
Right D-pad up					
X	Y	B	Y	A	B
B	A		A	C	
A	B	A	B	B	A
Y	X		X	Y	
Start	"+"	Start	Start	Start	Start
D	""	Select	Select	Mode	Start
	Home			Home	Home
	Capture			Capture	Capture
L	ZL	L	L	Z	Z
Z	L		ZL	X	L
	Left stick click				
R	ZR	R	R	Z	ZR
C	R		ZR	Z	R
	Right stick click				









-  RetroScaler
-  @RetroScaler
-  www.retroscaler.com
-  barry@retroscaler.com