

**POWER OF AR AND VR**

# UPBGE

## Logic Bricks Editor



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2024-1-PL01-KA220-VET-000243150

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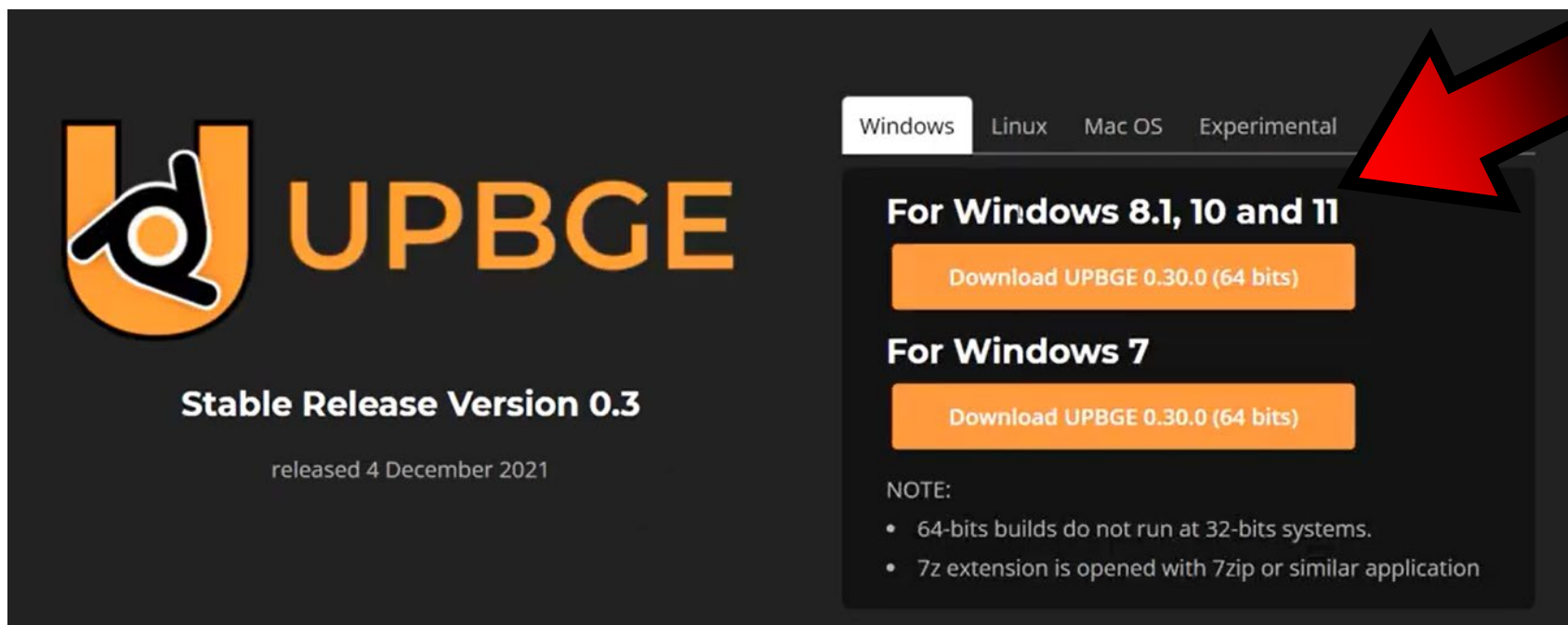
# PRZEDSTAWIĘ JEDEN ZE SPOSOBÓW TWORZENIA SCEN Z UŻYCIEM



## IDŹ DO STRONY

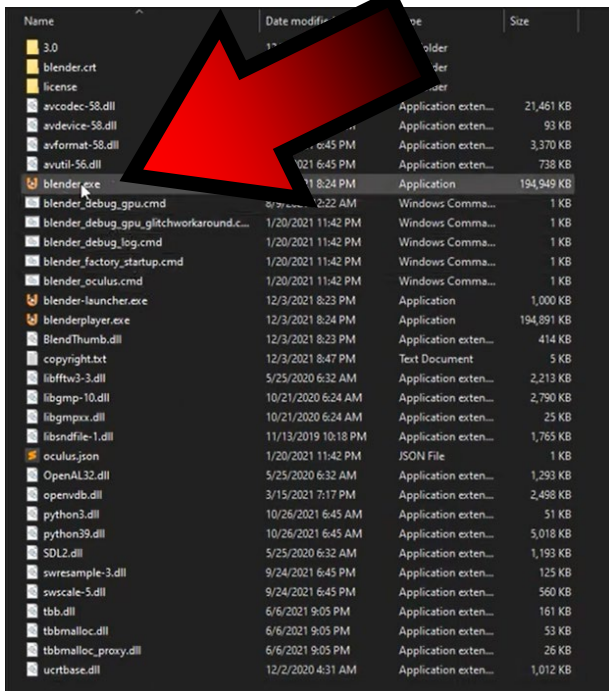


## POBIERZ ODPOWIEDNIA WERSJĘ PROGRAMU

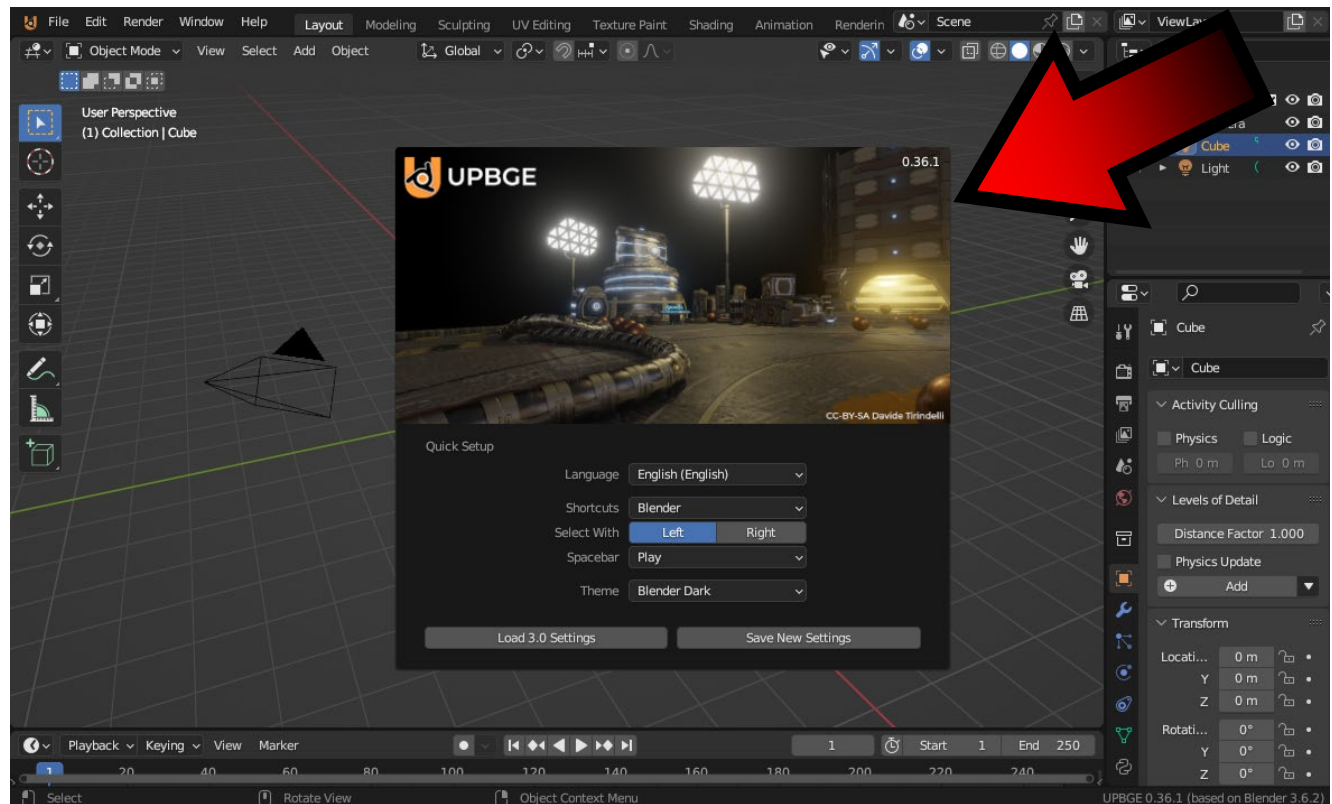


The screenshot shows the UPBGE download page. On the left, there is a logo for UPBGE (a stylized 'U' with a 'd' inside) and the text "UPBGE". Below the logo, it says "Stable Release Version 0.3" and "released 4 December 2021". On the right, there are tabs for "Windows", "Linux", "Mac OS", and "Experimental". The "Windows" tab is selected. Underneath, there are two sections: "For Windows 8.1, 10 and 11" and "For Windows 7". Each section has an orange button that says "Download UPBGE 0.30.0 (64 bits)". A red arrow points to the "Download UPBGE 0.30.0 (64 bits)" button for Windows 8.1, 10 and 11. Below the buttons, there is a "NOTE:" section with two bullet points: "64-bits builds do not run at 32-bits systems." and "7z extension is opened with 7zip or similar application".

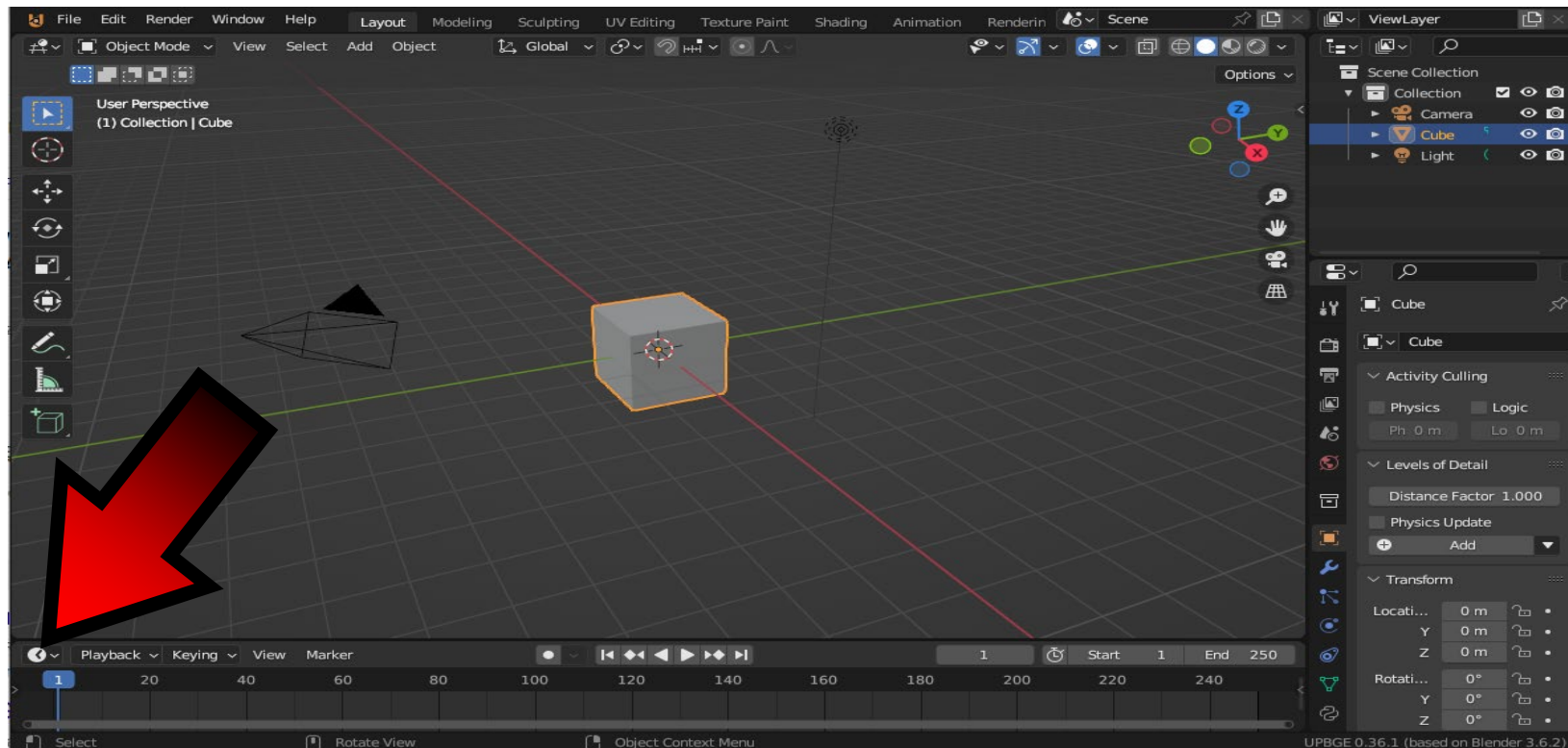
# UPBGE NIE MUSI BYĆ INSTALOWANY



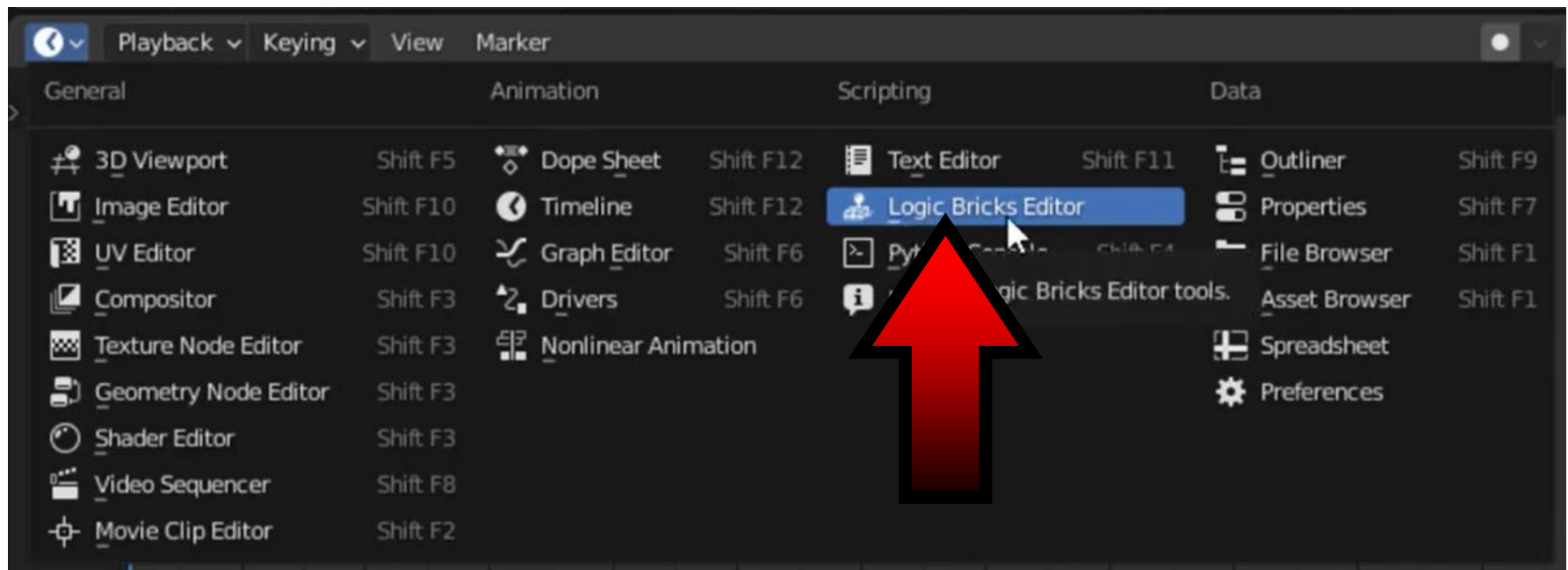
Name	Date modified	Type	Size
3.0		Folder	
blender.crt		Application exten...	21,461 KB
license		Application exten...	93 KB
avcodec-58.dll		Application exten...	3,370 KB
avdevice-58.dll		Application exten...	738 KB
avformat-58.dll		Application exten...	194,949 KB
avutil-56.dll		Application exten...	1,000 KB
blender.exe		Application	194,949 KB
blender_debug_gpu.cmd		Windows Comma...	1 KB
blender_debug_gpu_glitchworkaround.c...		Windows Comma...	1 KB
blender_debug_log.cmd		Windows Comma...	1 KB
blender_factory_startup.cmd		Windows Comma...	1 KB
blender_oculus.cmd		Windows Comma...	1 KB
blender-launcher.exe		Application	1,000 KB
blenderplayer.exe		Application	194,949 KB
BlendThumb.dll		Application exten...	414 KB
copyright.txt		Text Document	5 KB
libfftw3-3.dll		Application exten...	2,213 KB
libgmp-10.dll		Application exten...	2,790 KB
libgmpxx.dll		Application exten...	25 KB
libsndfile-1.dll		Application exten...	1,765 KB
oculus.json		JSON File	1 KB
OpenAL32.dll		Application exten...	1,293 KB
opendvb.dll		Application exten...	2,498 KB
python3.dll		Application exten...	51 KB
python39.dll		Application exten...	5,018 KB
SDL2.dll		Application exten...	1,193 KB
swresample-3.dll		Application exten...	125 KB
swscale-5.dll		Application exten...	560 KB
tbb.dll		Application exten...	161 KB
tbbmalloc.dll		Application exten...	53 KB
tbbmalloc_proxy.dll		Application exten...	26 KB
ucrtbase.dll		Application exten...	1,012 KB



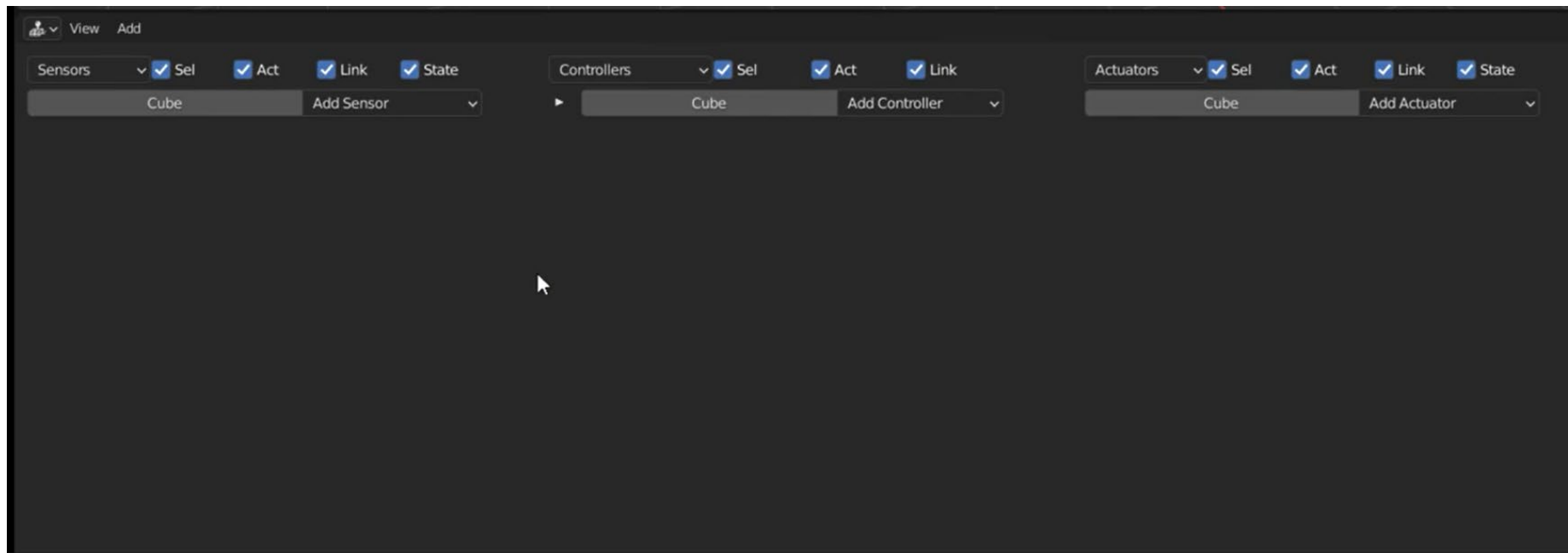
## KLIKNIJ NA IKONKĘ W DOLNYM LEWYM ROGU



# ZAZNACZ LOGIC BRICKS EDITOR

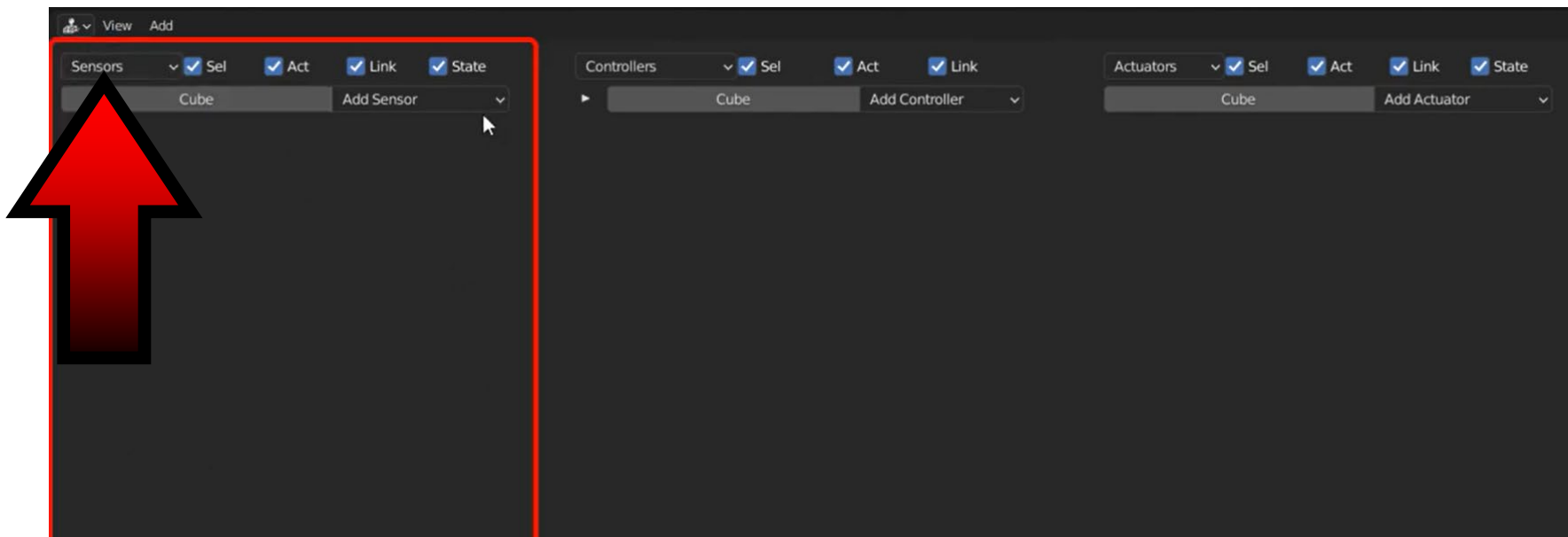


## ZOBACZYSZ OKNO Z TRZEMA SEKCJAMI

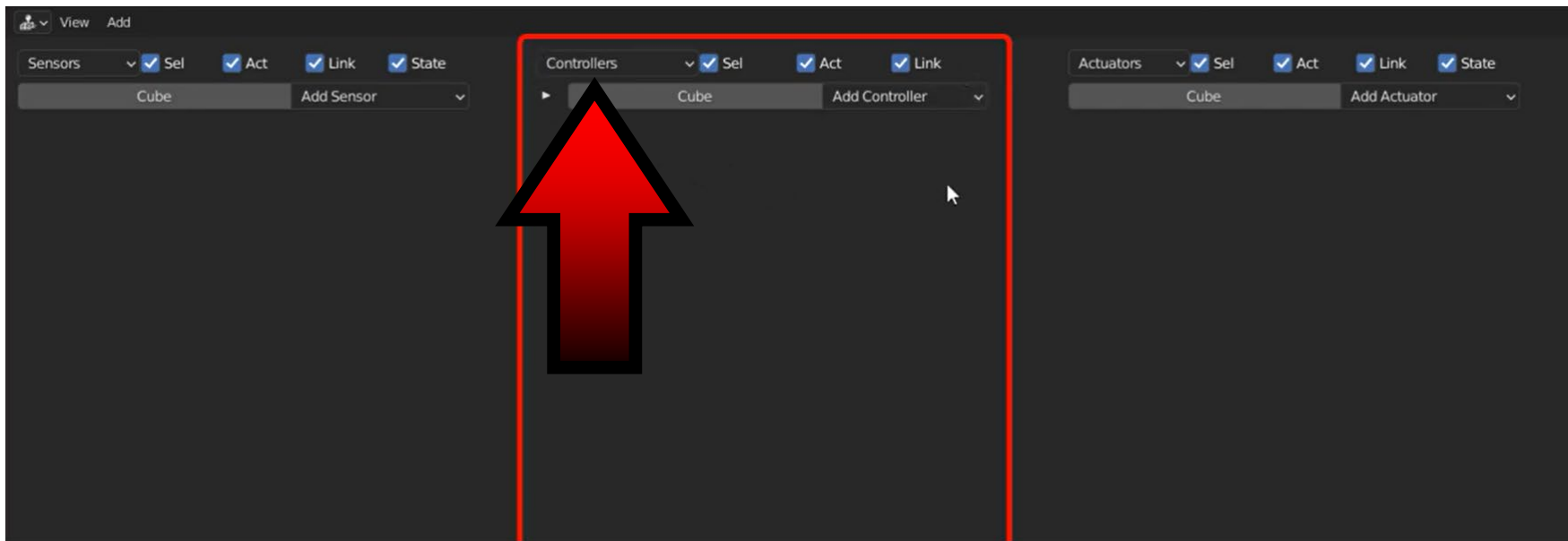




# SENSORS

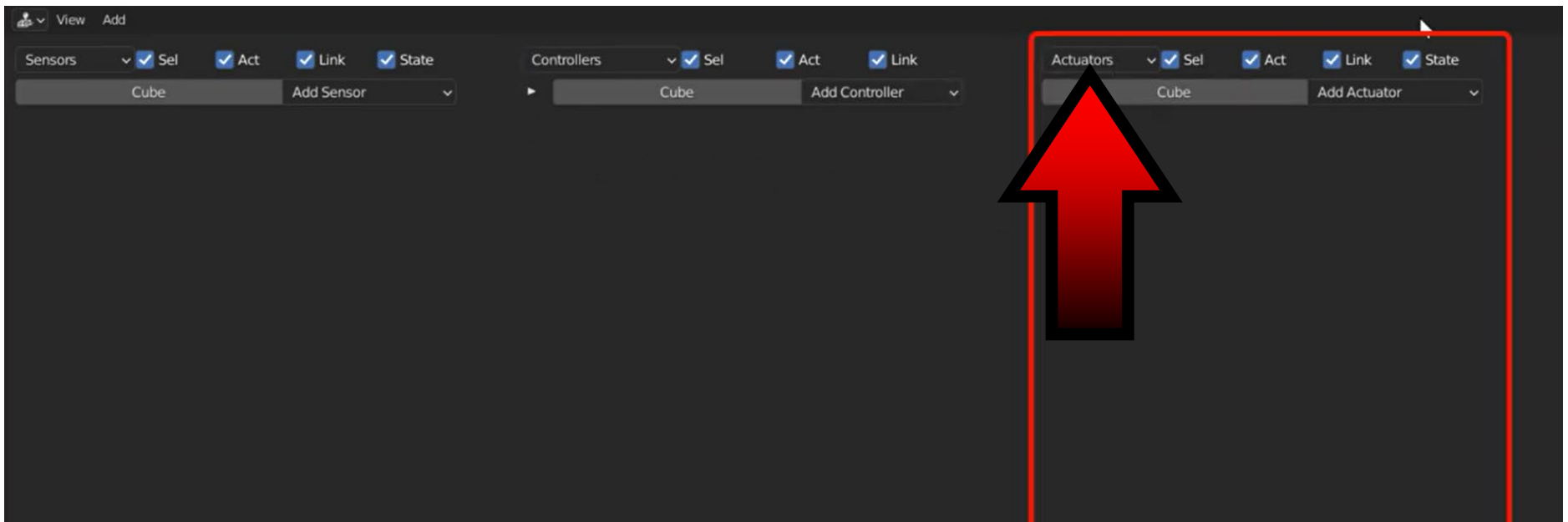


# CONTROLLERS

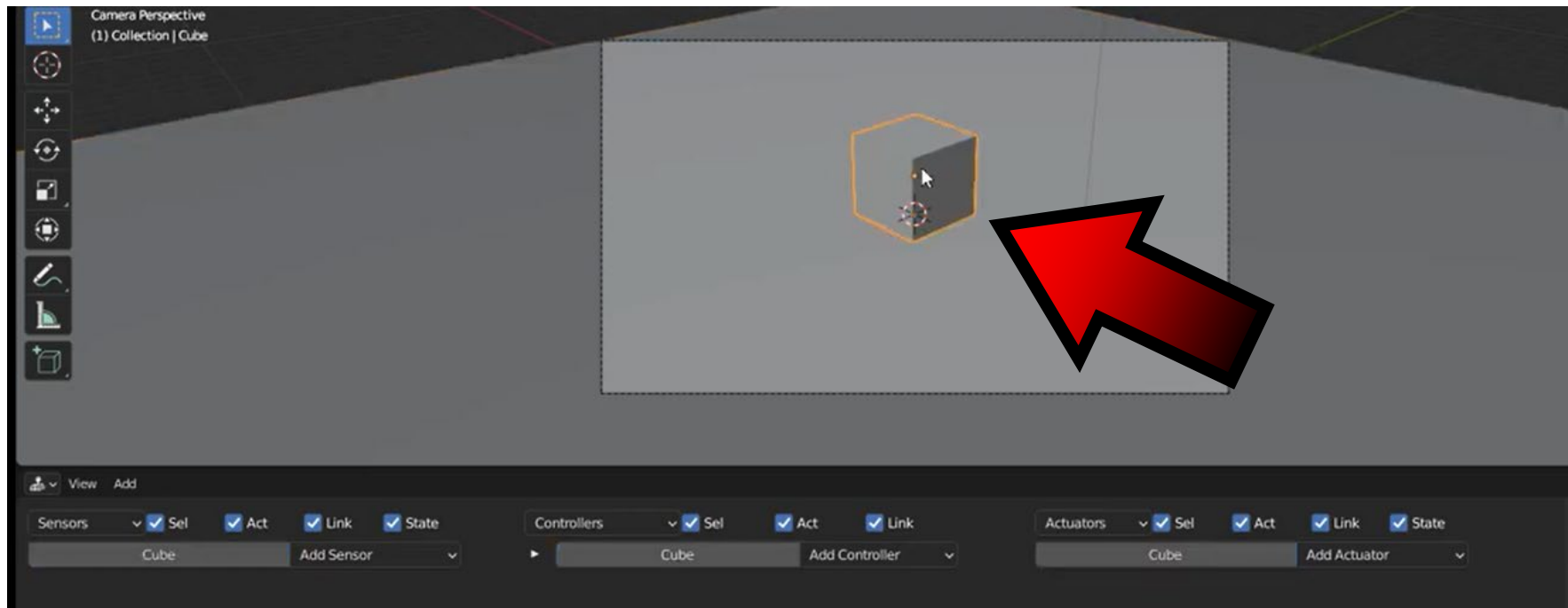




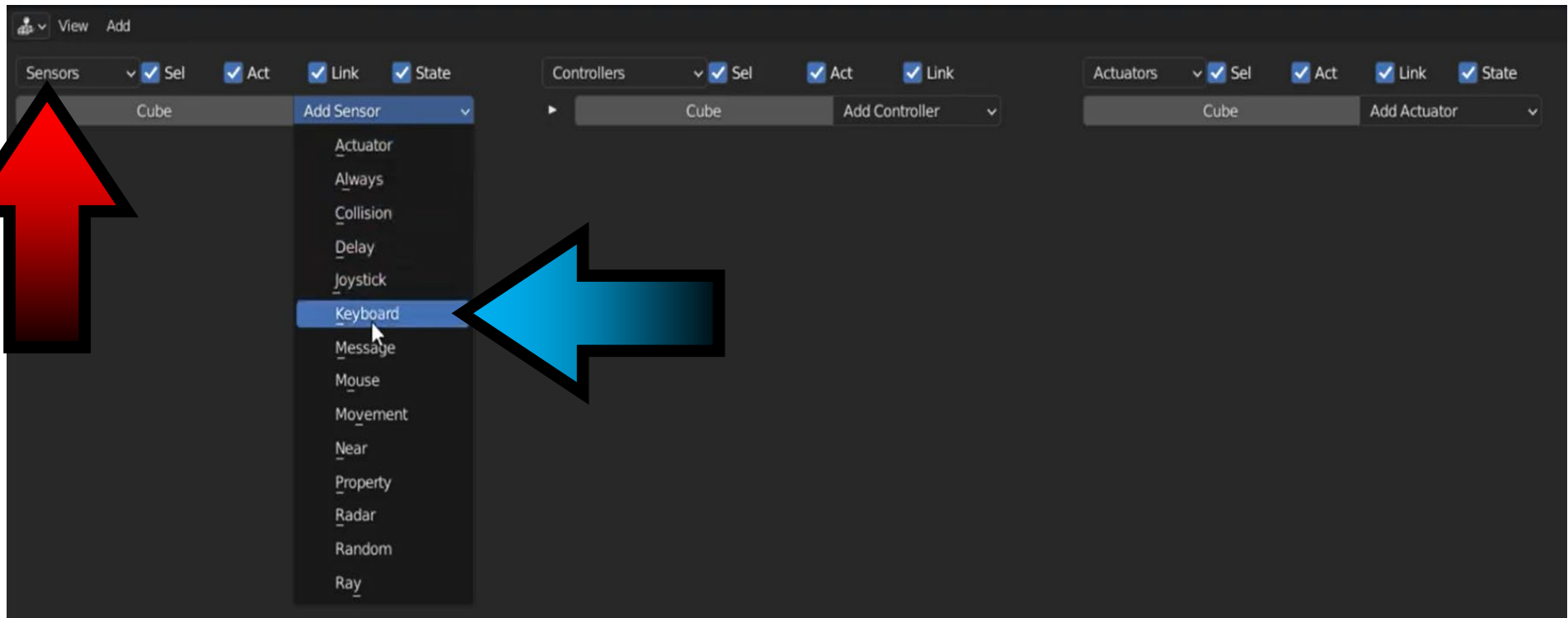
# ACTUATORS



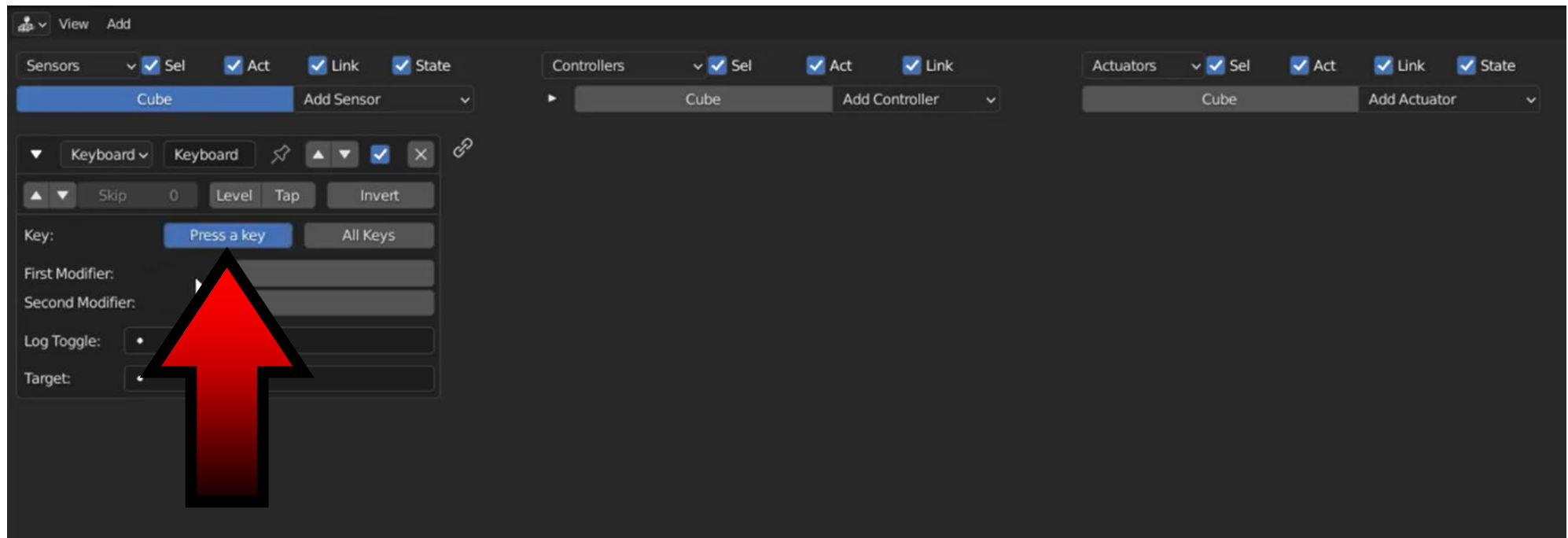
# ZAZNACZ CUBE



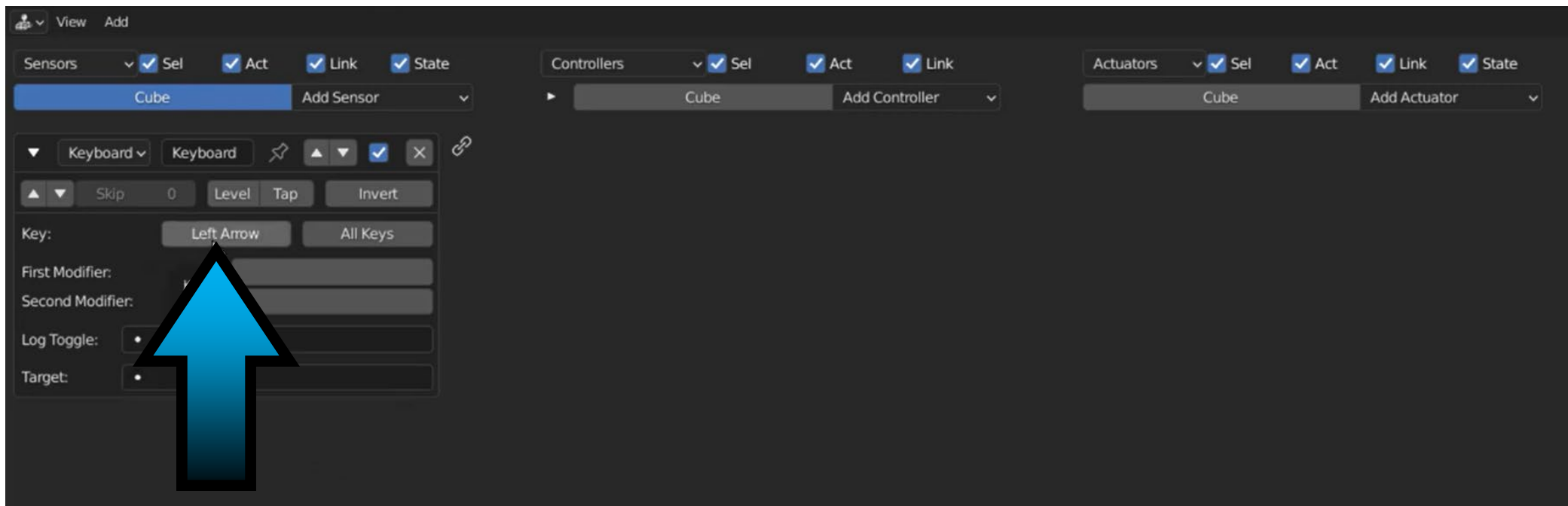
# DLA **SENSORS** WYBIERZ **KEYBOARD**



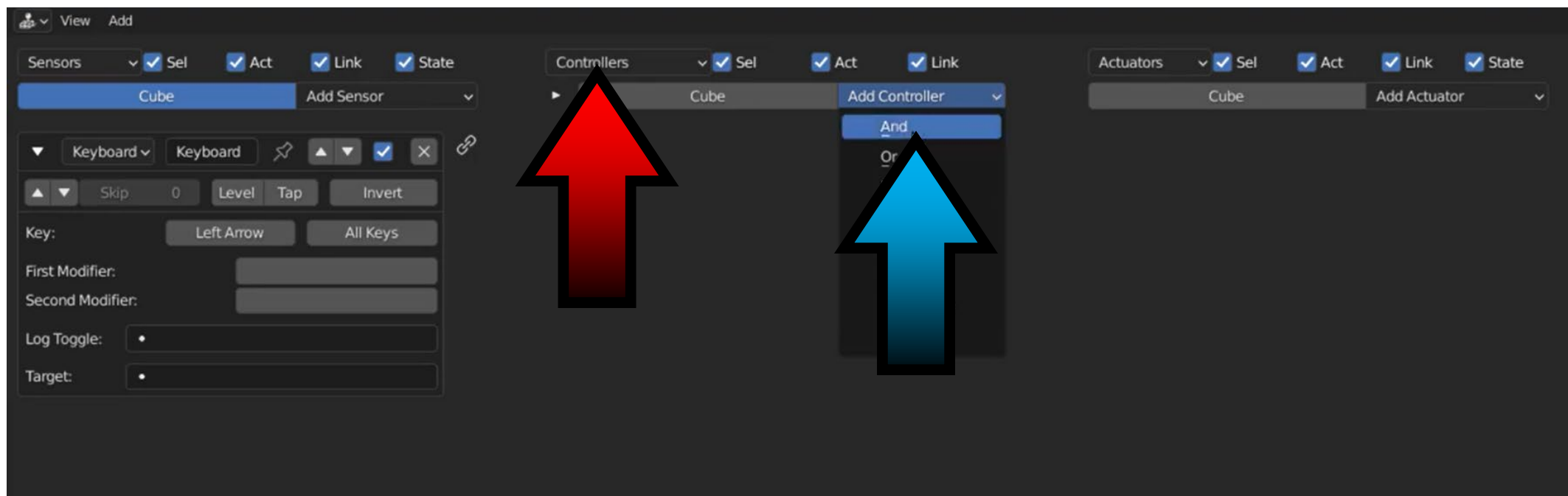
# KLIKNIJ MYSZKĄ W **PRESS A KEY**



## NASTĘPNIENACIŚNIJ STRZAŁKĘ W LEWO Z KLAKWIATURY



# DLA **CONTROLLERS** WYBIERZ **AND**



The screenshot displays the UPBGE software interface with three configuration panels. The left panel is for 'Sensors' and is currently set to 'Cube'. The middle panel is for 'Controllers' and is also set to 'Cube'. The right panel is for 'Actuators' and is set to 'Cube'. In the 'Controllers' panel, the 'Add Controller' dropdown menu is open, showing options like 'And' and 'Or'. A red arrow points to the 'Controllers' dropdown, and a blue arrow points to the 'And' option.





# POWER OF AR AND VR



# DLA **ACTUATORS** WYBIERZ **MOTION**

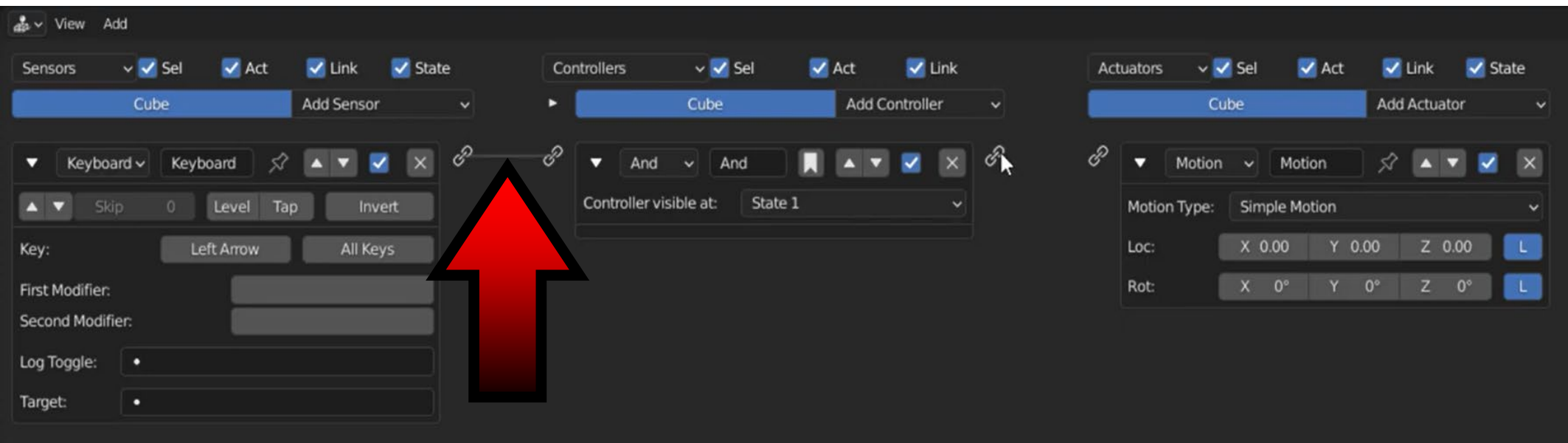
The screenshot displays three configuration panels in a VR development environment:

- Sensors Panel:** Shows a 'Cube' sensor selected. The configuration is set to 'Keyboard' with 'Left Arrow' as the key.
- Controllers Panel:** Shows a 'Cube' controller selected. The configuration is set to 'And' with 'State 1' as the controller visible at.
- Actuators Panel:** Shows a 'Cube' actuator selected. The configuration is set to 'Motion' with 'Simple Motion' as the motion type. The motion parameters are X: 0.00, Y: 0.00, Z: 0.00, and X: 0.00, Y: 0.00, Z: 0°.

Two large arrows are overlaid on the Actuators panel: a red arrow pointing to the 'Motion' dropdown and a blue arrow pointing to the 'Simple Motion' dropdown.

UPBGE

# POŁĄCZYLIŚMY **SENSORS** Z **CONTROLLERS**

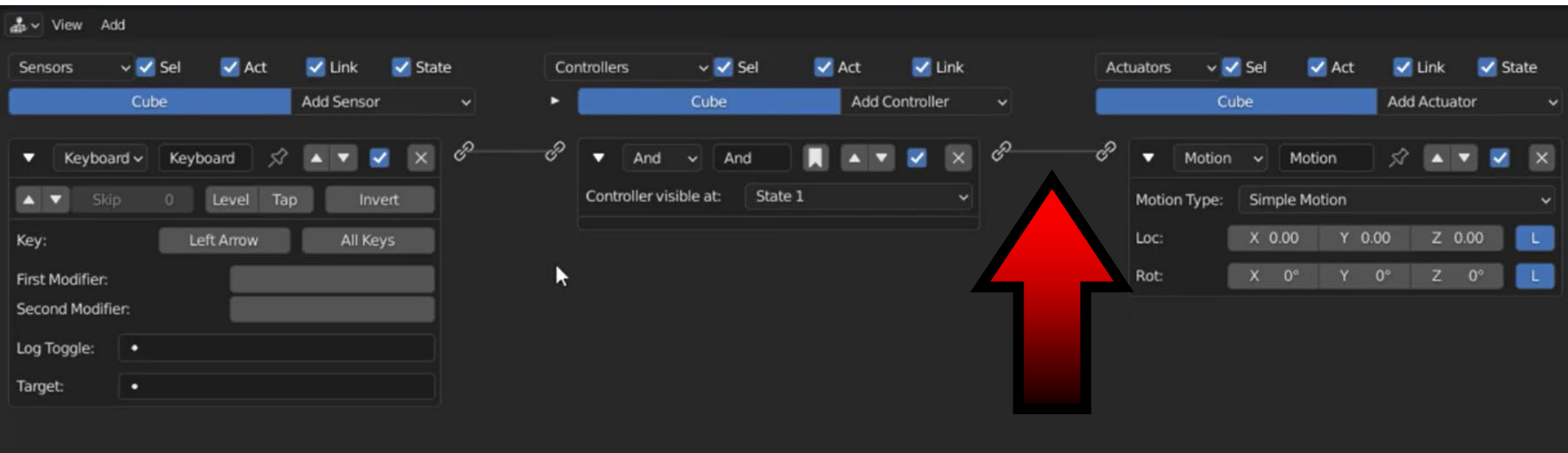


The screenshot shows the UPBGE software interface with three main configuration panels for a 'Cube' object:

- Sensors Panel:** Includes a 'Keyboard' sensor configuration with options for 'Key' (Left Arrow, All Keys), 'First Modifier', 'Second Modifier', 'Log Toggle', and 'Target'.
- Controllers Panel:** Shows a configuration for 'Controller visible at: State 1'.
- Actuators Panel:** Shows a 'Motion' actuator configuration with 'Motion Type: Simple Motion' and location/rotation settings (X, Y, Z for Loc and Rot).

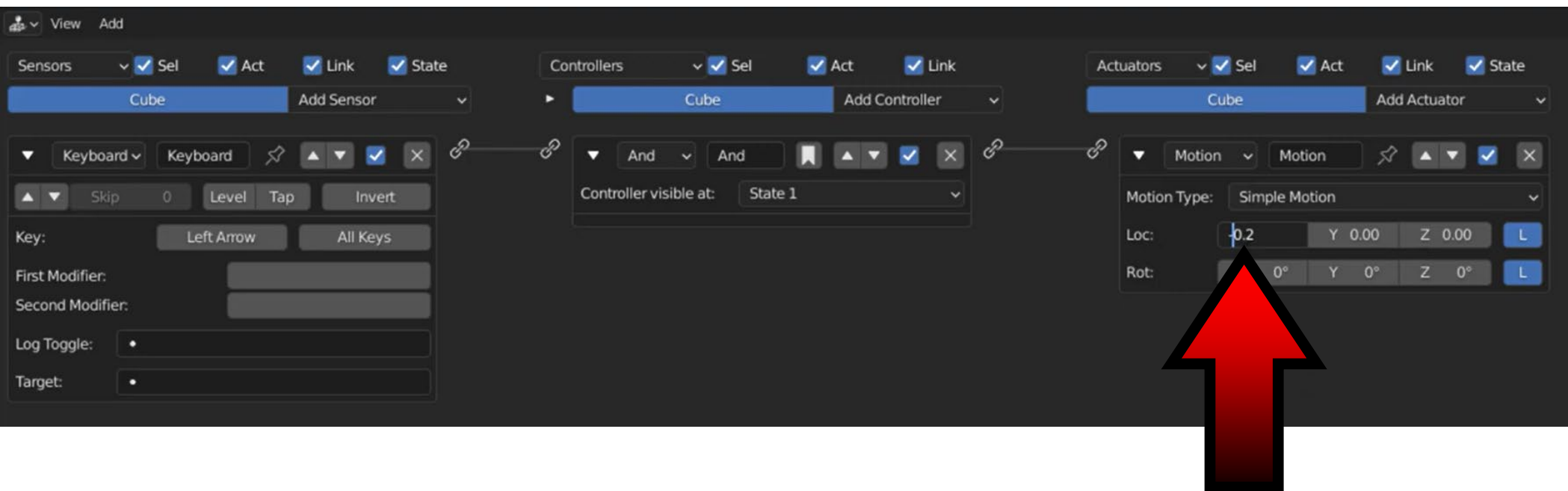
A red arrow points to the 'Link' button between the Sensors and Controllers sections, indicating the connection between the two.

# NASTĘPNIÉ **CONTROLLERS** **Z ACTUATORS**



The screenshot displays a VR development software interface with three main panels: Sensors, Controllers, and Actuators. Each panel has a dropdown menu for the selected component (Cube) and a list of available components. The Sensors panel shows a 'Keyboard' sensor with a 'Left Arrow' key selected. The Controllers panel shows an 'And' controller with 'Controller visible at: State 1'. The Actuators panel shows a 'Motion' actuator with 'Motion Type: Simple Motion' and location/rotation settings for X, Y, and Z axes. A large red arrow points upwards from the bottom center of the interface towards the Controller panel.

# WPROWADŹ PRZEMIESZCZENIE WZDŁUŻ OSI X O -0,2



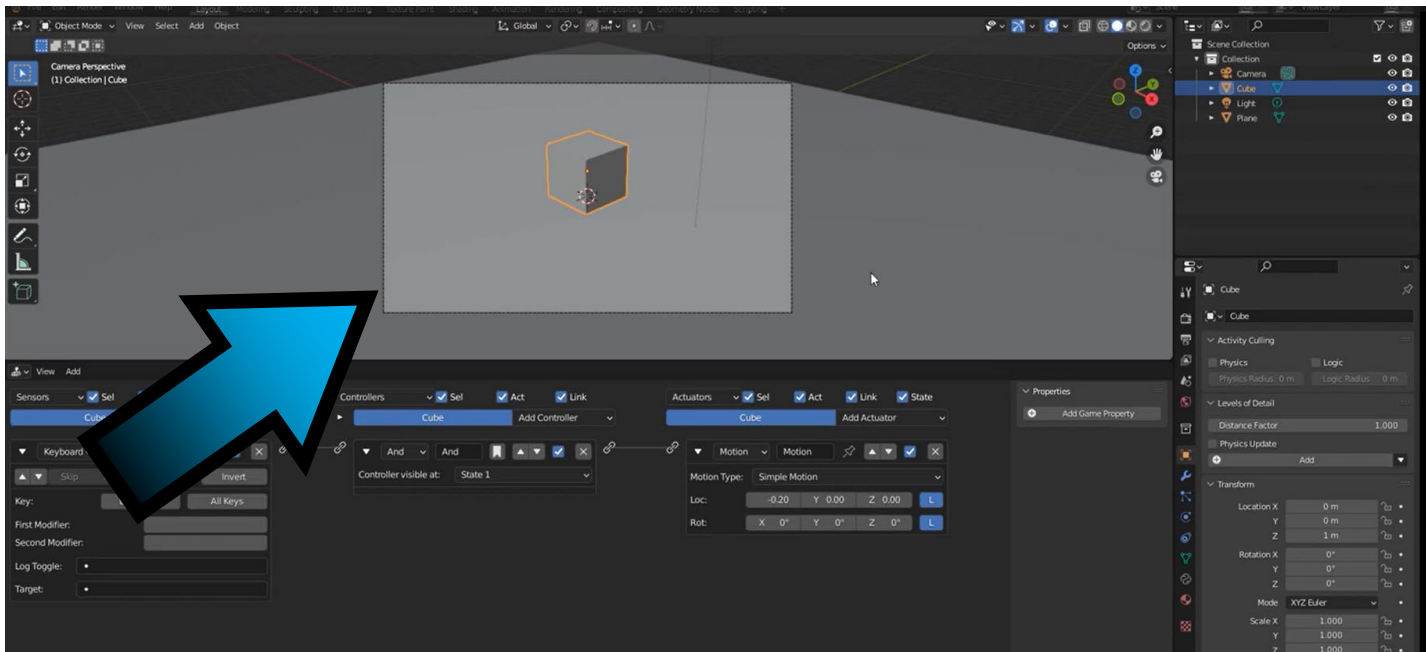
The screenshot displays a VR development software interface with three main panels: Sensors, Controllers, and Actuators. The Actuators panel is active, showing a configuration for a 'Cube' object. The 'Motion' actuator is selected, and its 'Loc' (Location) field is set to 'X 0.2', 'Y 0.00', and 'Z 0.00'. A large red arrow points to the 'X 0.2' value, indicating the intended displacement along the X-axis.

Panel	Component	Configuration
Sensors	Cube	Keyboard, Left Arrow, All Keys
Controllers	Cube	And, And, Controller visible at: State 1
Actuators	Cube	Motion, Simple Motion, Loc: X 0.2, Y 0.00, Z 0.00

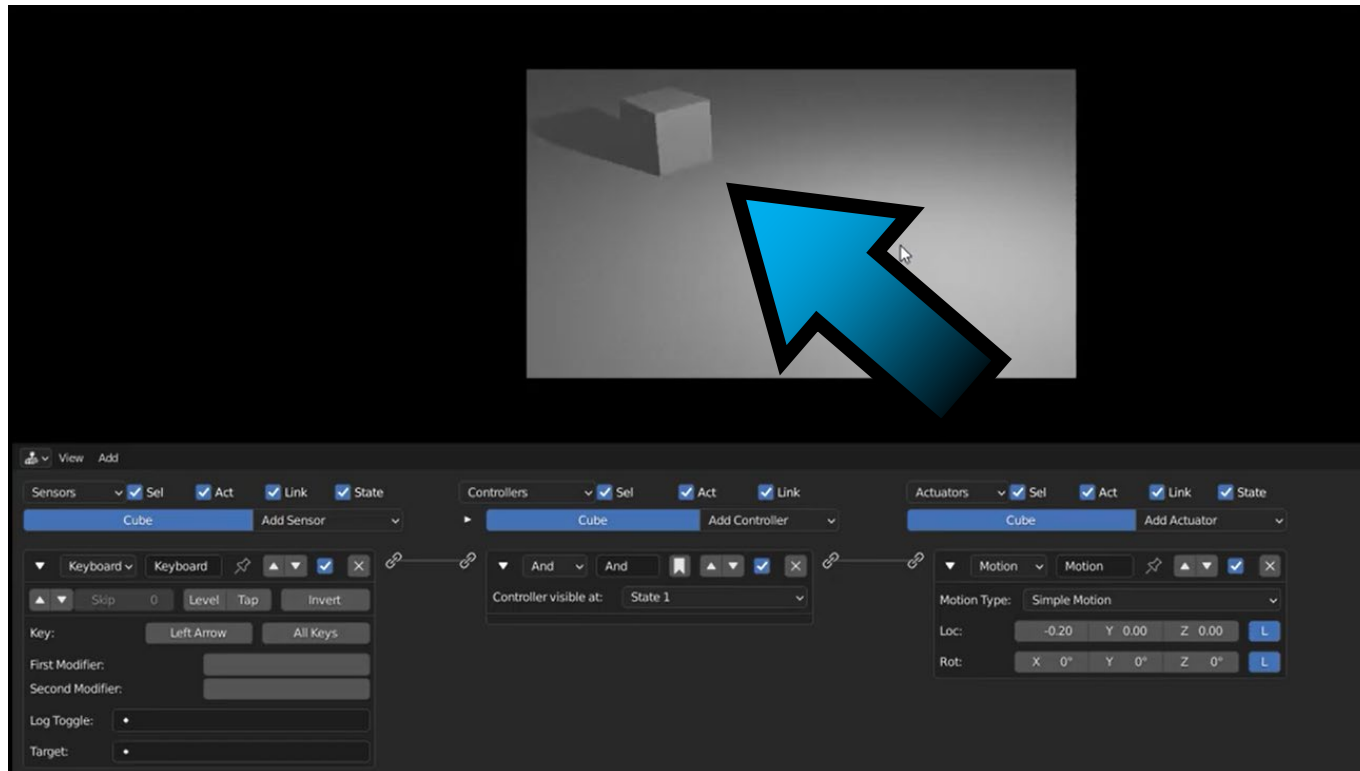
# POWER OF AR AND VR

## KLIKNIJ 0 (zero)

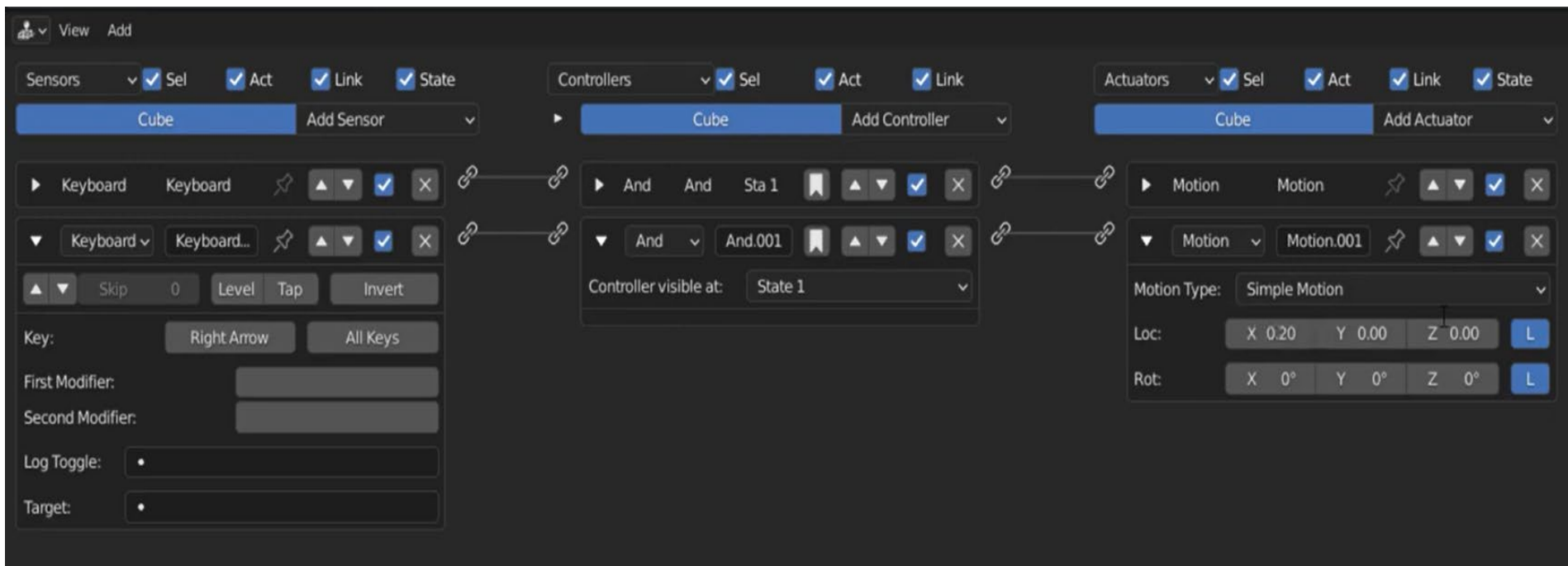
# Z KLAWIATURY NUMERYCZNEJ PRZEJDZIESZ DO WIDOKU Z KAMERY



**NACIŚNIJ KLAWISZ P, ABY URUCHOMIĆ GRĘ,  
NASTĘPNIE KLIKAJ W LEWĄ STRZAŁKĘ  
CUBE BĘDZIE SIĘ PRZESUWAŁ**

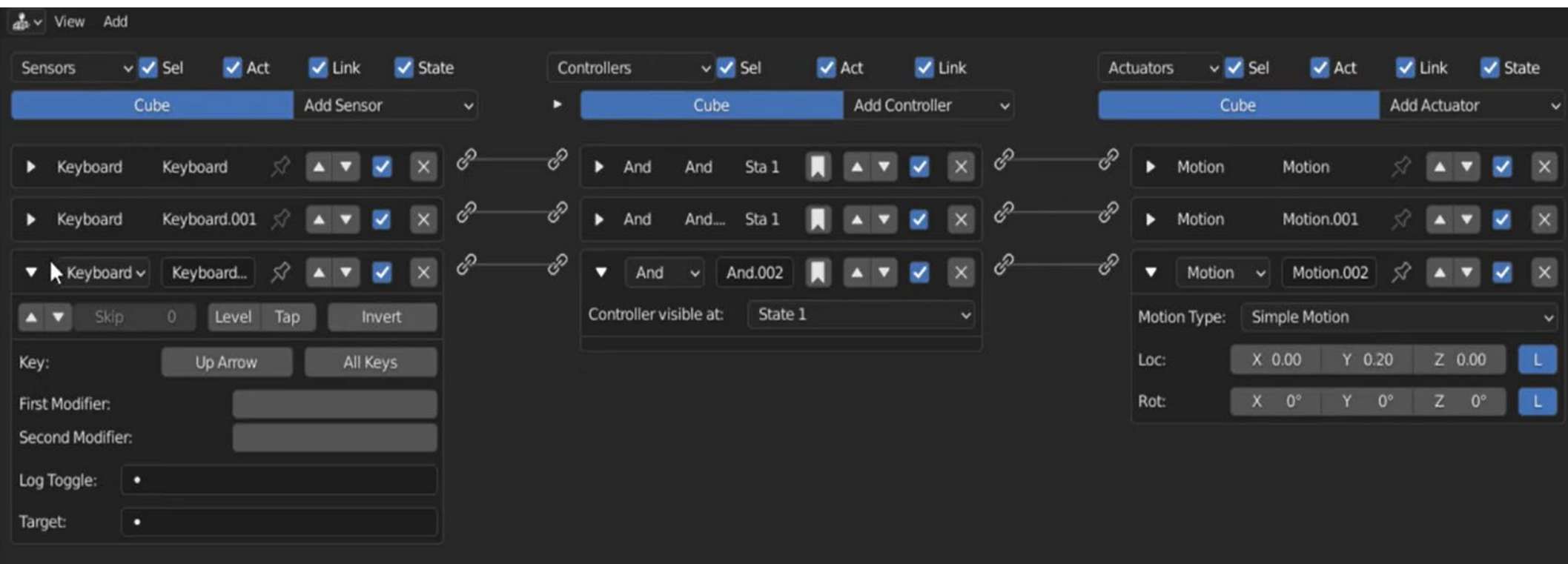


## ZGODNIE Z NASTĘPUJĄCYM WZOREM DODAJ WIĘCEJ ELEMENTÓW DLA PRAWEJ STRZAŁKI



The screenshot displays a software configuration interface for a right arrow key. It is organized into three main sections: Sensors, Controllers, and Actuators. Each section has a header with 'Sel', 'Act', 'Link', and 'State' checkboxes. The Sensors section shows a 'Keyboard' sensor with 'Right Arrow' selected. The Controllers section shows an 'And' controller with 'Sta 1' selected. The Actuators section shows a 'Motion' actuator with 'Simple Motion' selected and coordinates (X: 0.20, Y: 0.00, Z: 0.00). The interface also includes various control buttons like 'Sel', 'Act', 'Link', and 'State' for each element.

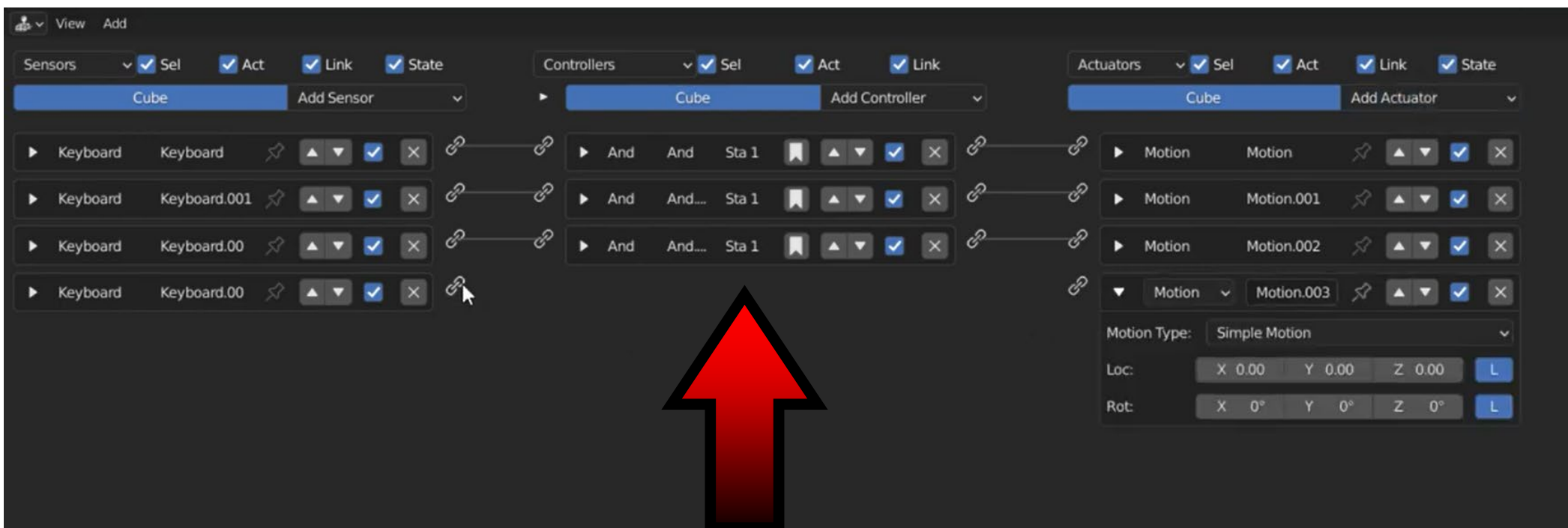
# I DLA STRZAŁKI DO GÓRY



The screenshot displays a Unity-like interface for configuring AR/VR interactions. It is organized into three main columns: Sensors, Controllers, and Actuators. Each column has a header with checkboxes for 'Sel', 'Act', 'Link', and 'State'. The Sensors column shows a 'Cube' sensor connected to a 'Keyboard' controller. The Controllers column shows a 'Cube' controller connected to a 'Motion' actuator. The Actuators column shows a 'Cube' actuator connected to a 'Motion' actuator. The interface includes various settings like 'Sel', 'Act', 'Link', and 'State' for each component, and a 'Motion Type' dropdown set to 'Simple Motion'. The bottom section of the interface shows a 'Key' dropdown set to 'Up Arrow' and a 'Motion Type' dropdown set to 'Simple Motion'. The 'Motion' actuator settings include 'Loc' (X 0.00, Y 0.20, Z 0.00) and 'Rot' (X 0°, Y 0°, Z 0°).

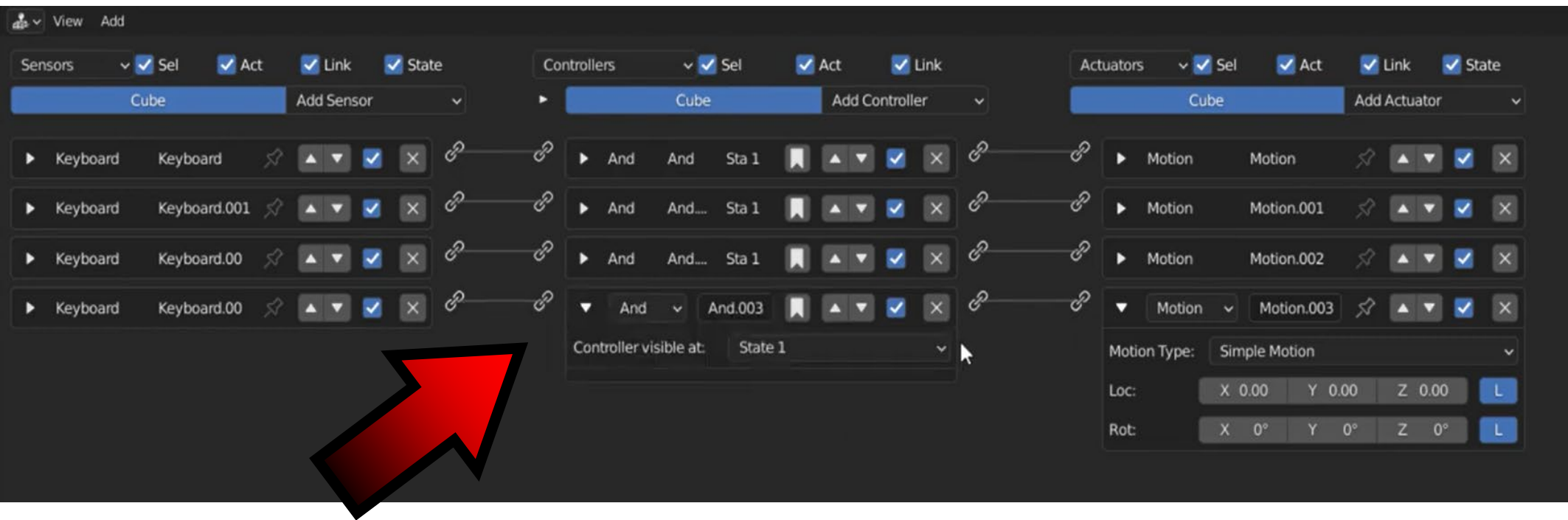


## DLA STRZAŁKI NA DÓŁ NIE DODAWAJ KONTROLERA



The screenshot shows a logic programming interface with three columns: Sensors, Controllers, and Actuators. Each column has a search bar and a list of bricks. In the Sensors column, there are four 'Keyboard' bricks. A red arrow points to the bottom-most 'Keyboard' brick. In the Controllers column, there are three 'And' bricks. In the Actuators column, there are four 'Motion' bricks. The bottom-most 'Motion' brick is expanded to show settings: Motion Type: Simple Motion, Loc: X 0.00, Y 0.00, Z 0.00, and Rot: X 0°, Y 0°, Z 0°.

## PODCZAS POŁĄCZENIA SYSTEM SAM DODA CONTROLERS



The screenshot displays a software interface for configuring a system, likely a game engine or simulation. It is divided into three main sections: Sensors, Controllers, and Actuators. Each section has a dropdown menu to select an object (here, 'Cube') and a list of items with various control options (checkboxes, arrows, and icons). The Sensors section lists four 'Keyboard' items. The Controllers section lists three 'And' items and one 'And.003' item, with a 'Controller visible at: State 1' dropdown. The Actuators section lists three 'Motion' items and one 'Motion.003' item, with a 'Motion Type: Simple Motion' dropdown and location/rotation settings (X, Y, Z, L).

**Sensors** | Sel | Act | Link | State

Cube | Add Sensor

- Keyboard | Keyboard
- Keyboard | Keyboard.001
- Keyboard | Keyboard.00
- Keyboard | Keyboard.00

**Controllers** | Sel | Act | Link

Cube | Add Controller

- And | And | Sta 1
- And | And... | Sta 1
- And | And... | Sta 1
- And | And.003

Controller visible at: State 1

**Actuators** | Sel | Act | Link | State

Cube | Add Actuator

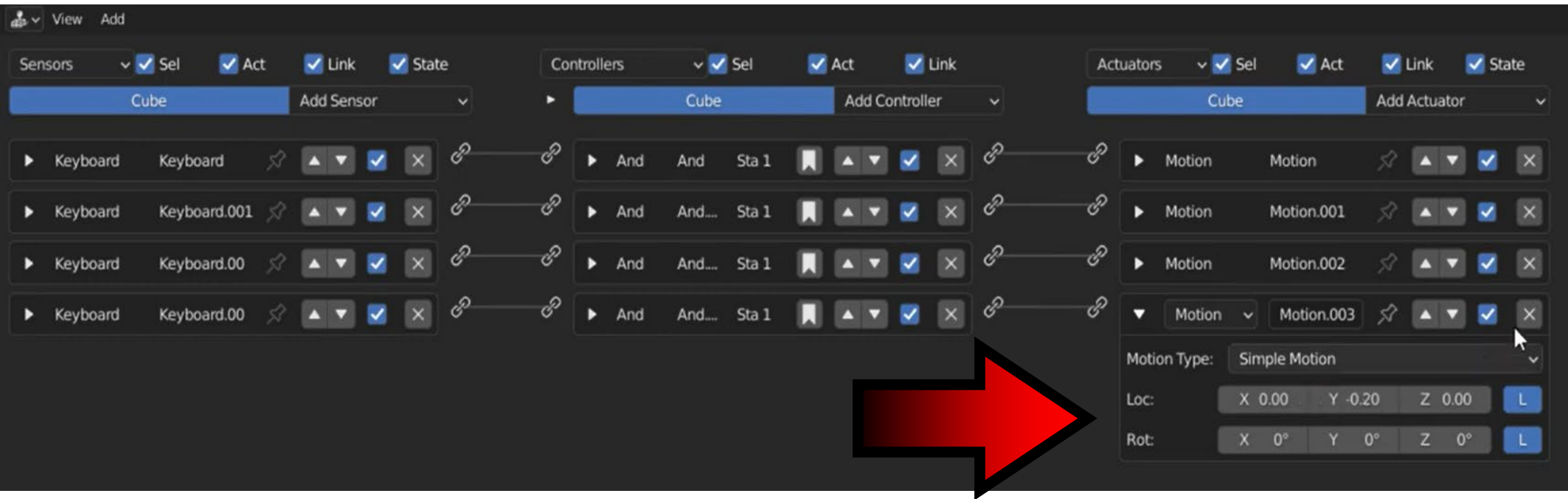
- Motion | Motion
- Motion | Motion.001
- Motion | Motion.002
- Motion | Motion.003

Motion Type: Simple Motion

Loc: X 0.00 Y 0.00 Z 0.00 L

Rot: X 0° Y 0° Z 0° L

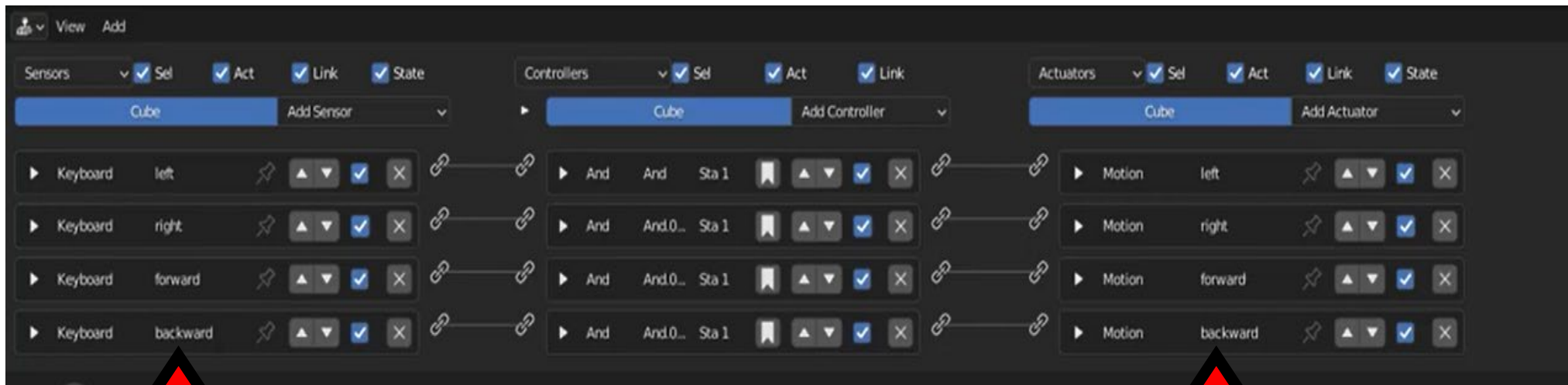
# USTAW TE SAME PARAMETRY DLA WSZYSTKICH STRZAŁEK



The screenshot displays a software configuration interface with three main columns: Sensors, Controllers, and Actuators. Each column has a header with 'Sel', 'Act', 'Link', and 'State' checkboxes. The Sensors column lists four 'Keyboard' entries. The Controllers column lists four 'And' entries. The Actuators column lists three 'Motion' entries. A red arrow points to the 'Motion.003' entry in the Actuators column. The details for 'Motion.003' are shown below:

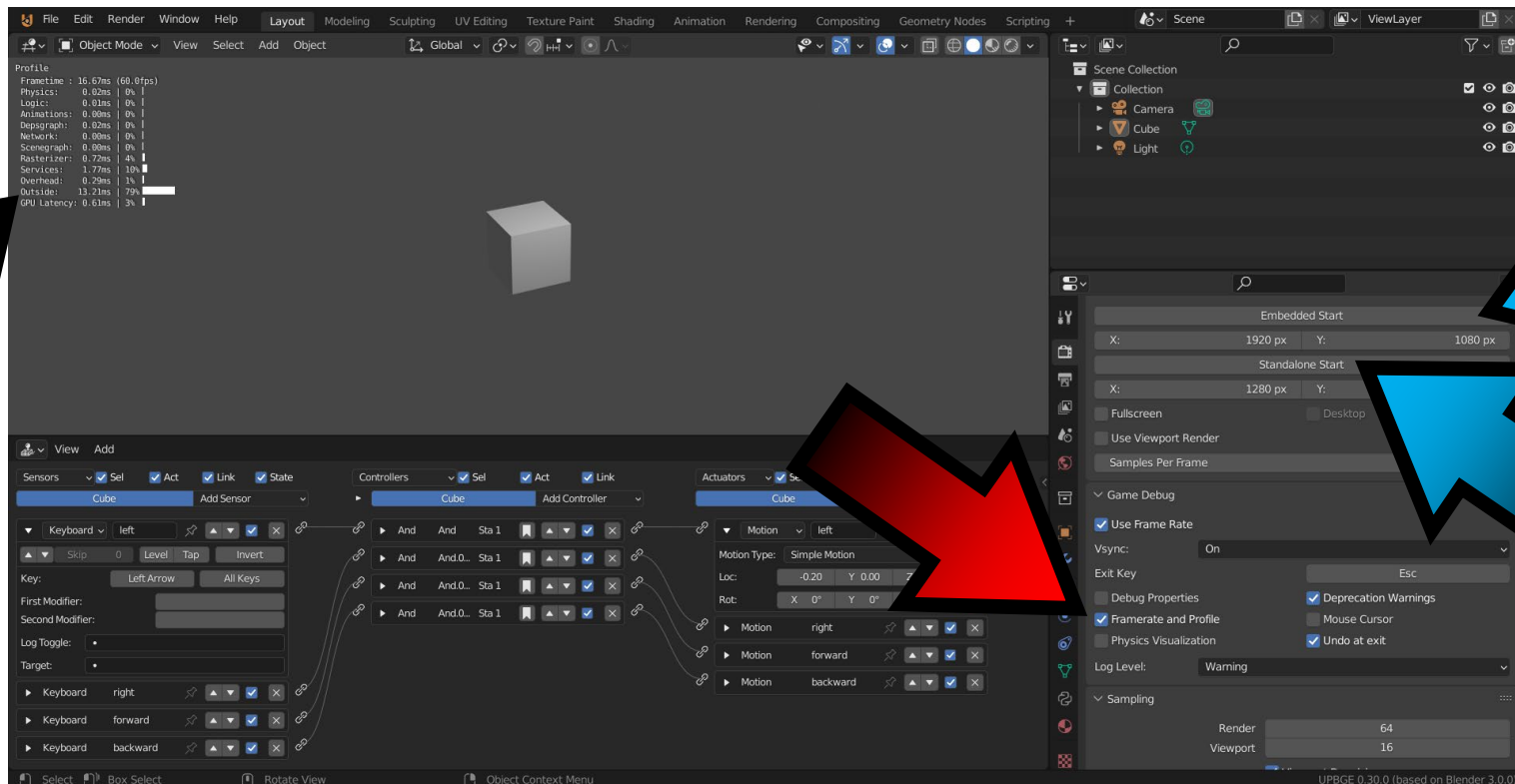
Loc:	X	Y	Z	Rot:
X	0.00	Y -0.20	Z 0.00	L
Rot:	X 0°	Y 0°	Z 0°	L

## DLA JASNOŚCI ZMIENIŃMY NAZWY



**UPBGE**

## MOŻEMY WŁĄCZYĆ OPCJĘ, KTÓRA WYŚWIETLI DZIAŁANIE SYSTEMU



# POWER OF AR AND VR

## DZIĘKUJĘ ZA UWAGĘ



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