

**POWER OF AR AND VR**

# UPBGE

## Collision



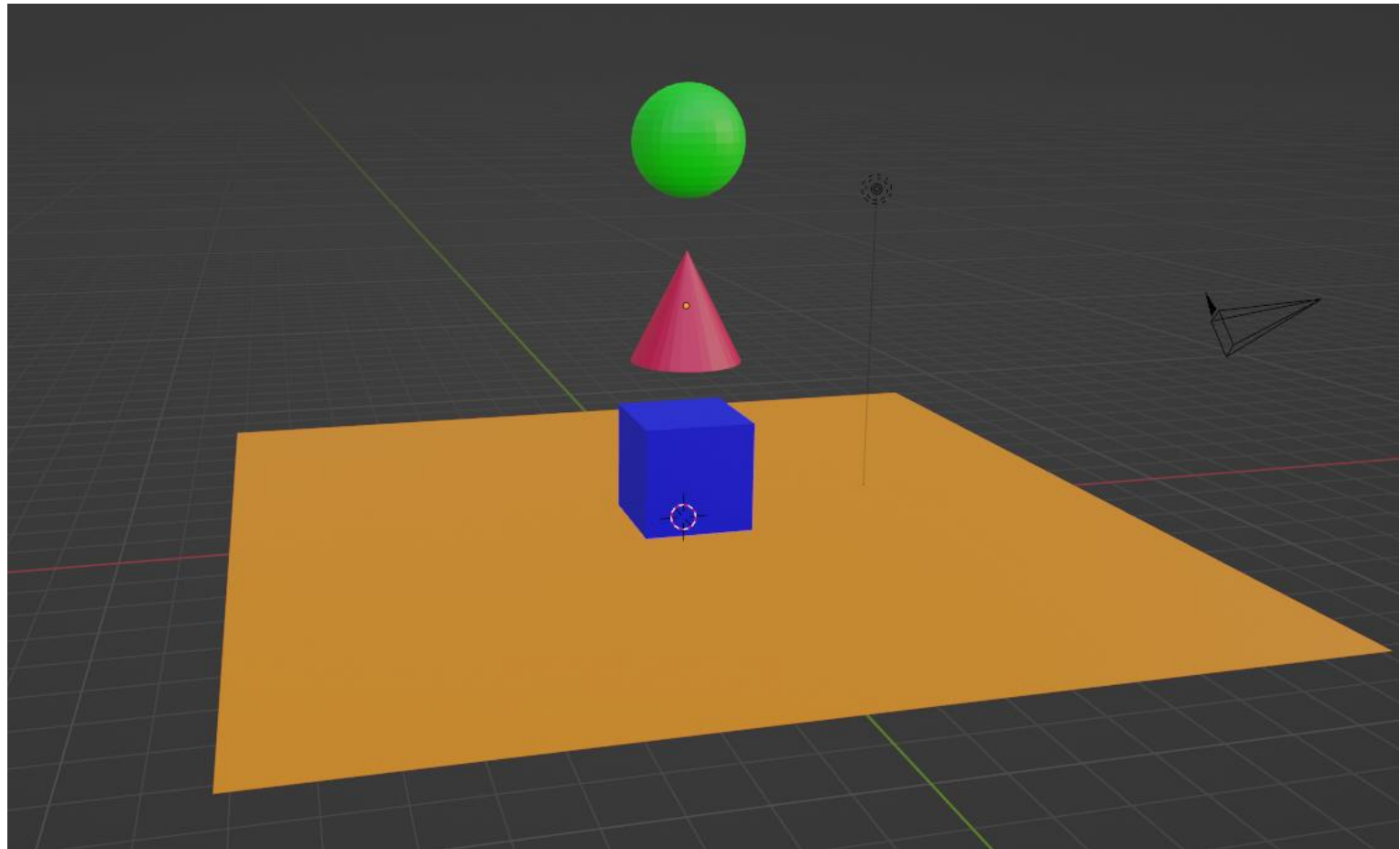
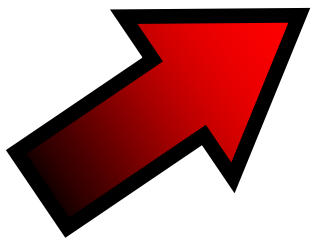
**Co-funded by  
the European Union**



2024-1-PL01-KA220-VET-000243150

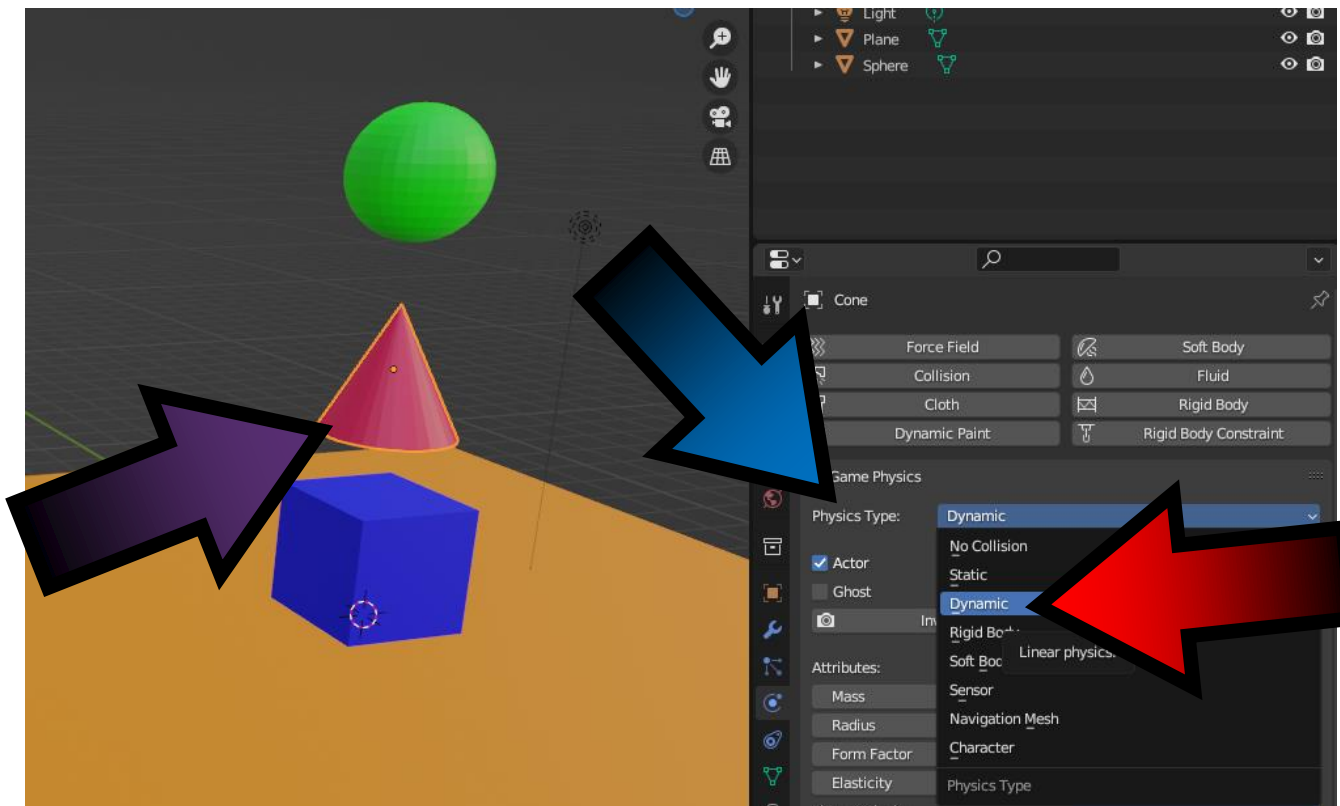
**JACEK KAWAŁEK**

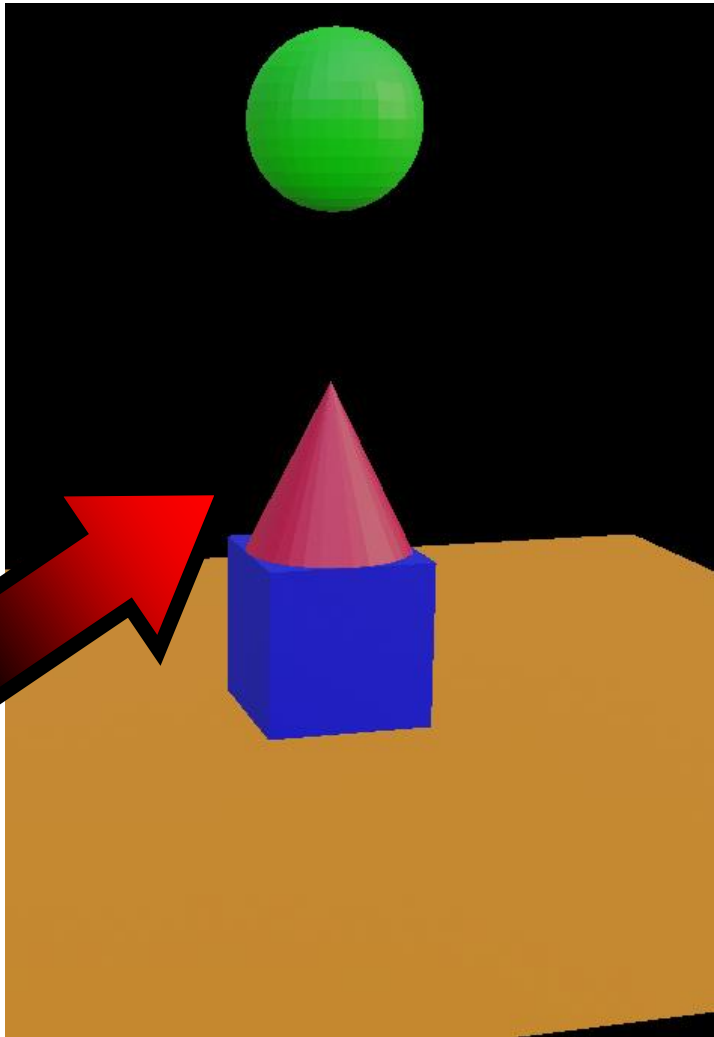
## CREATE FILE



## MARK THE CONE

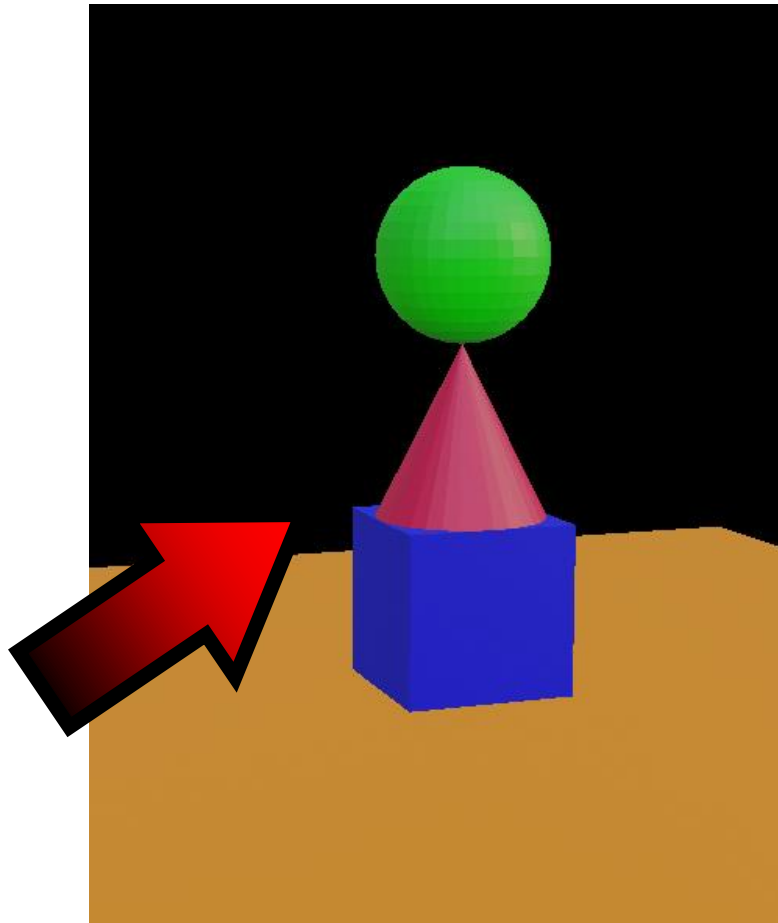
**FOR  
PHYSICS  
TYPE  
SELECT  
DYNAMIC**





**PRESS  
P KEY  
CONE FALLS  
DOWN**

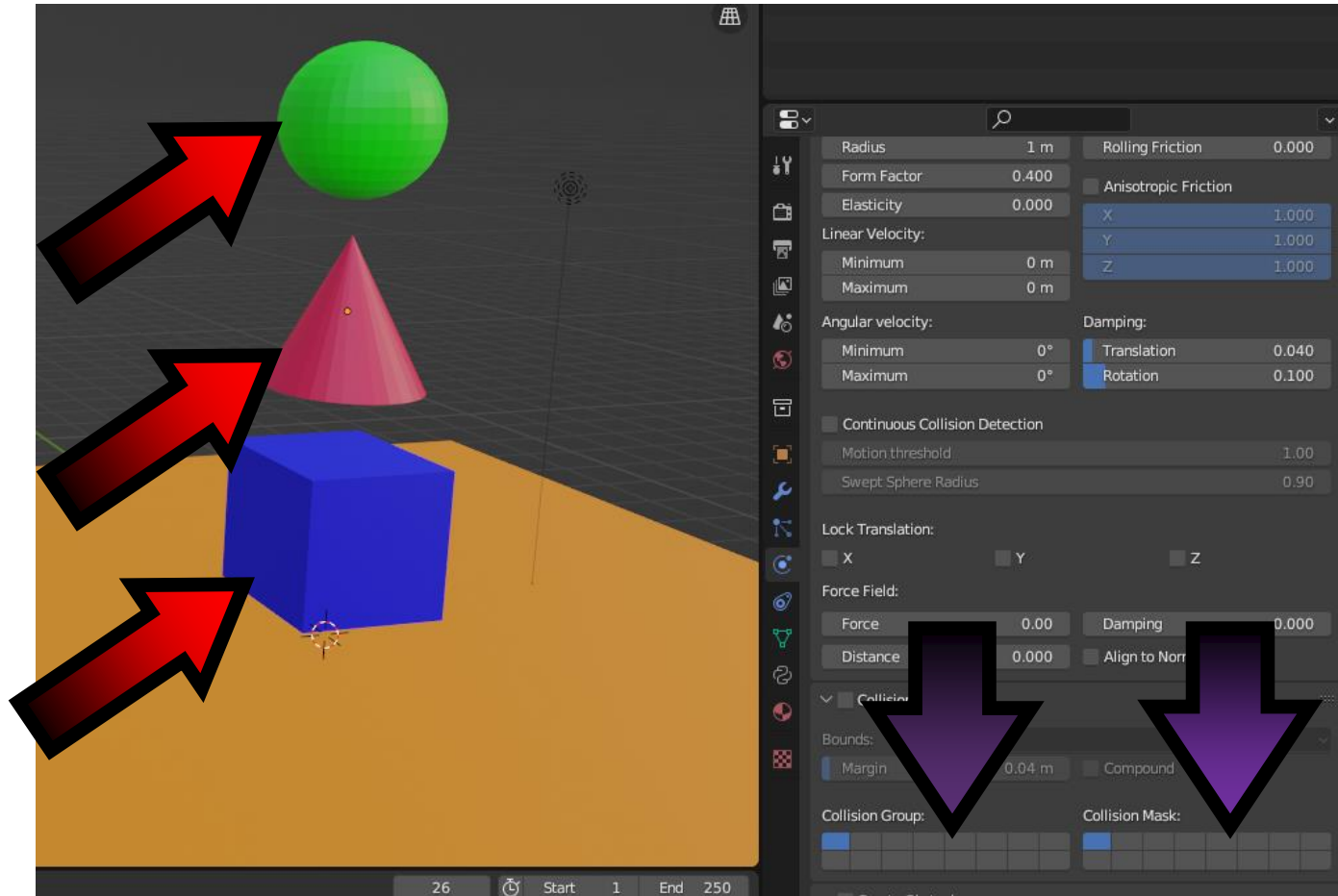
**SELECT  
DYNAMIC  
FOR  
SPHERE AND CUBE**

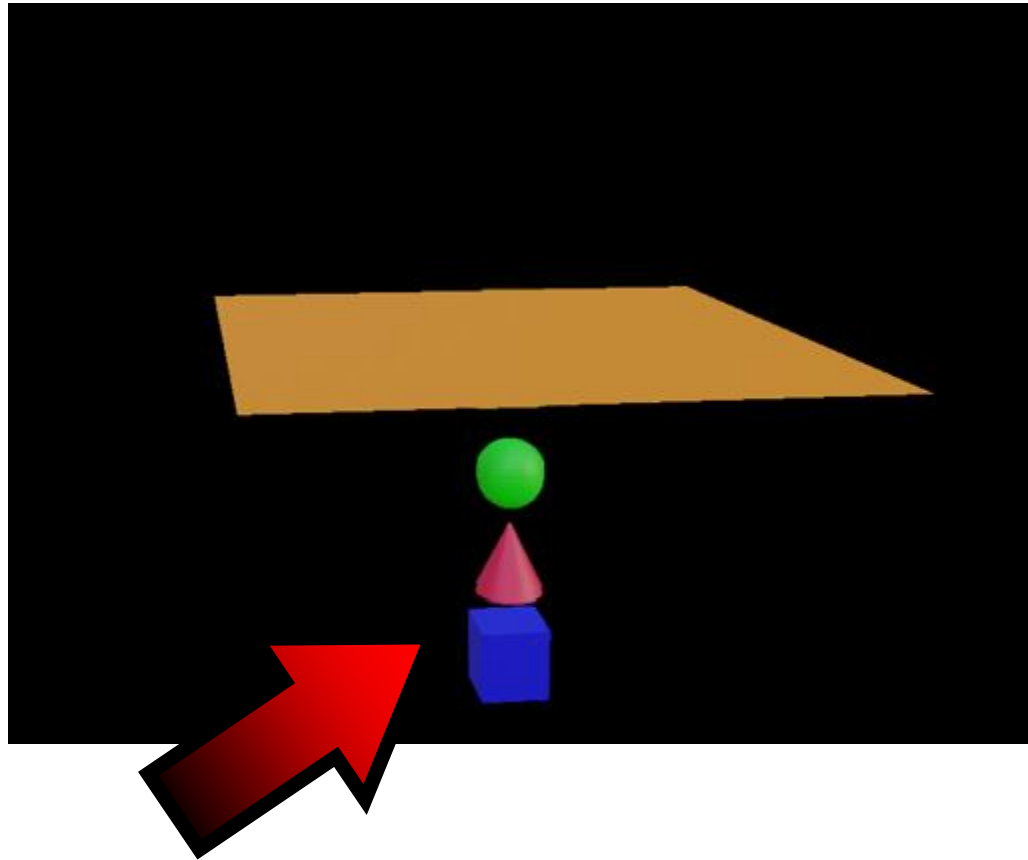


**PRESS**  
**P KEY**  
**ALL BLOCKS**  
**FALL**  
**DOWN**



**FOR THREE  
MODELS  
SET  
COLLISION  
GROUP  
AND  
COLLISION  
MASKS  
IN THE  
DRAWING**





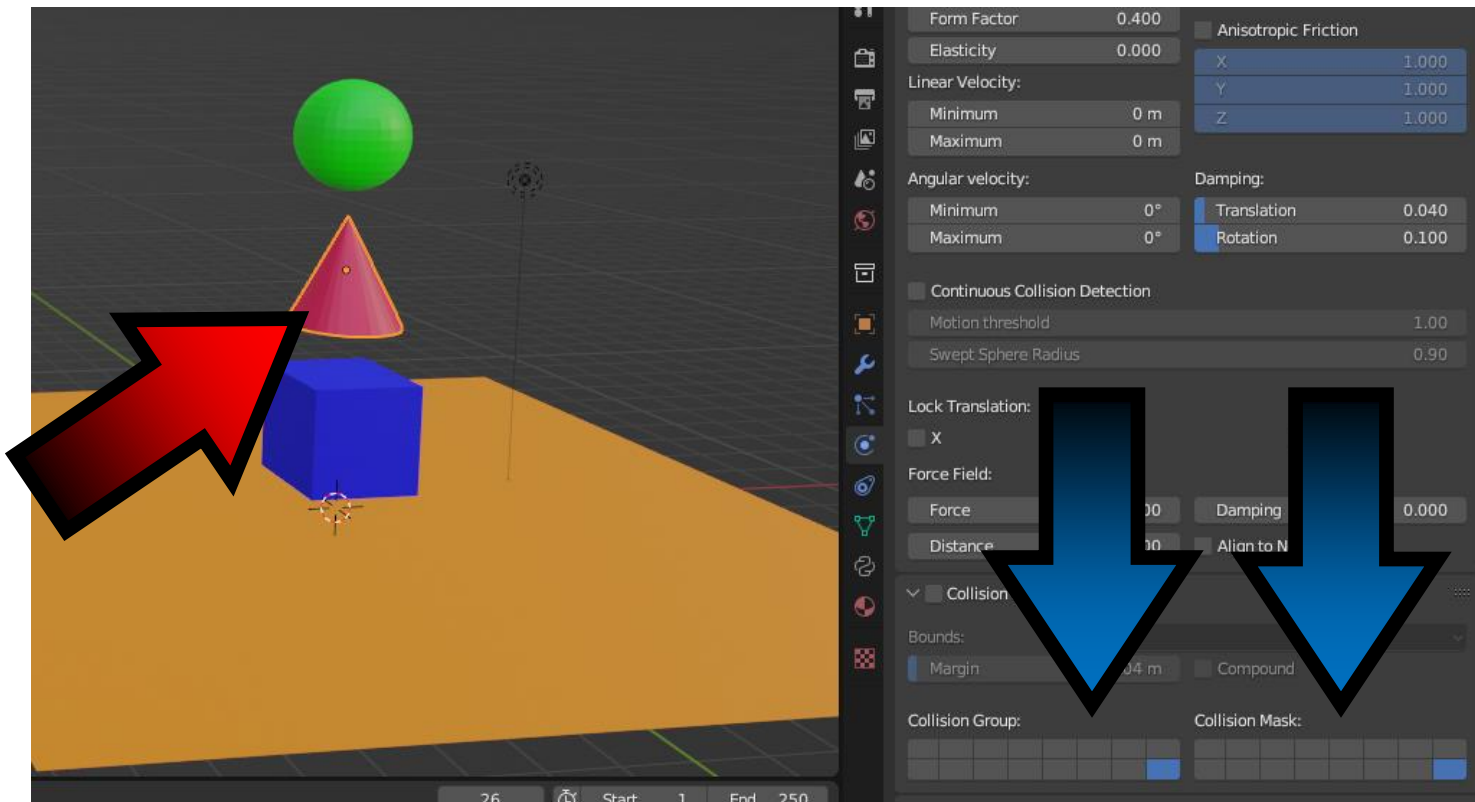
**PRESS P KEY**

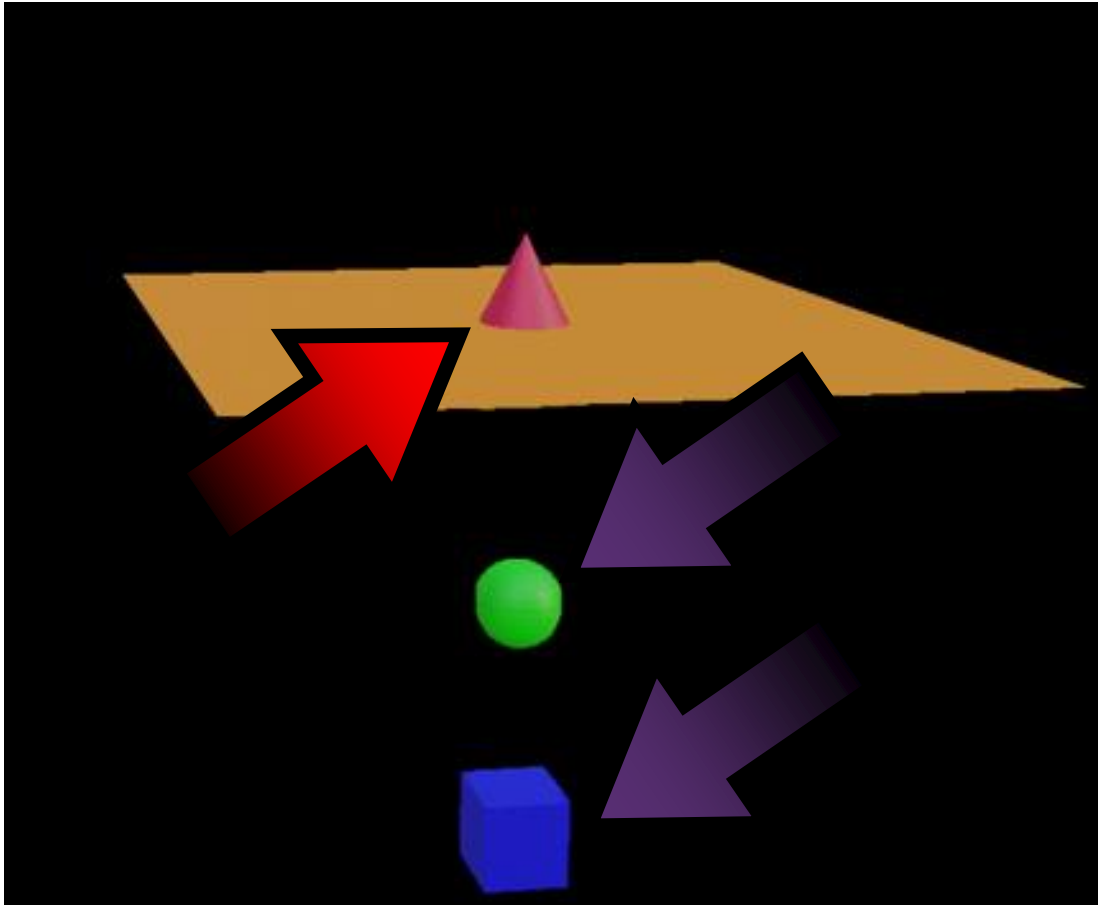
**ALL BLOCKS  
FLEW  
THROUGH  
THE PLANE**



## SELECT CONE

**SET  
COLLISION  
GROUP  
AND  
COLLISION  
MASK  
SAME  
AS FOR  
PLANE**

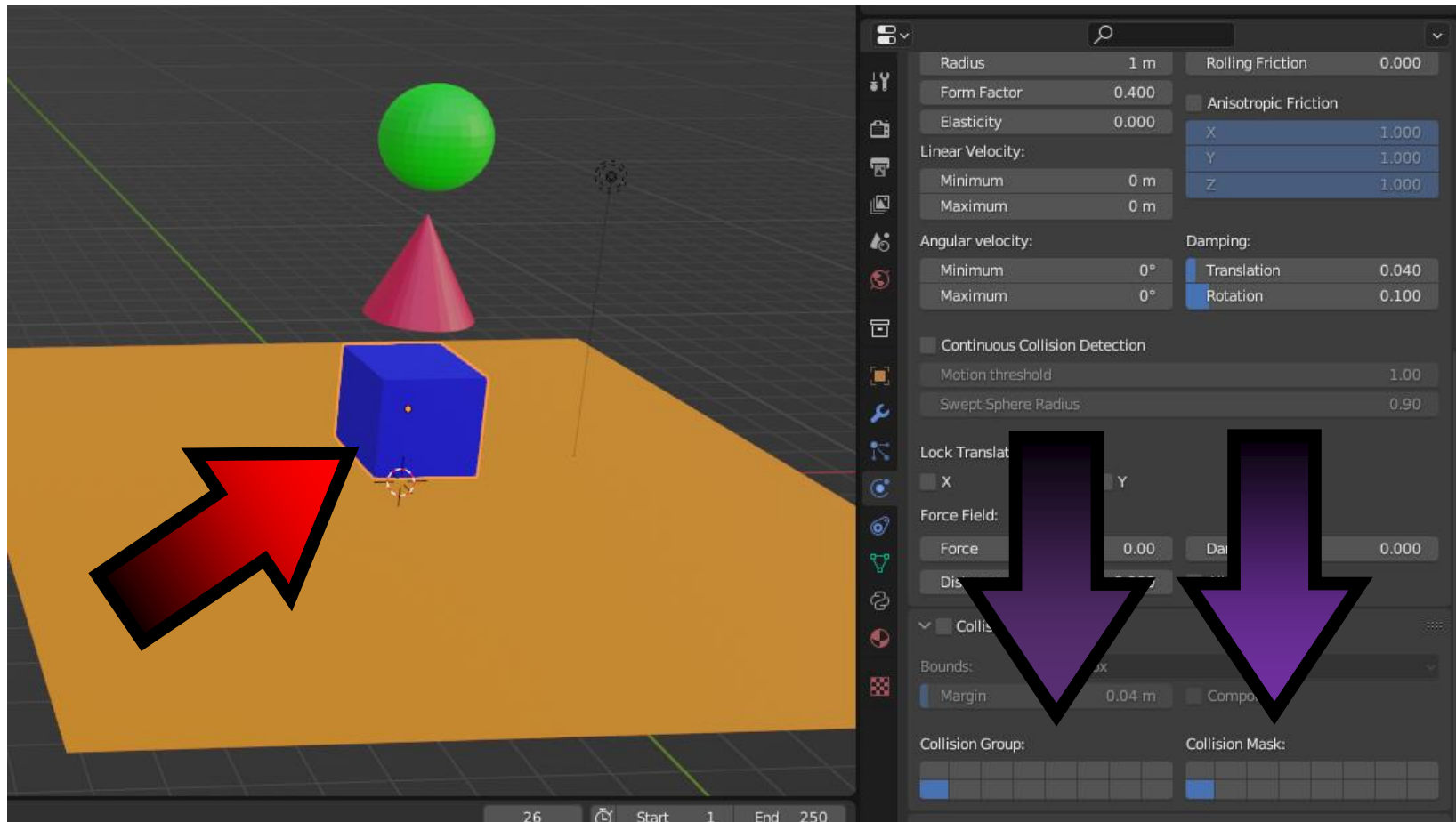




**PRESS  
THE  
P KEY**

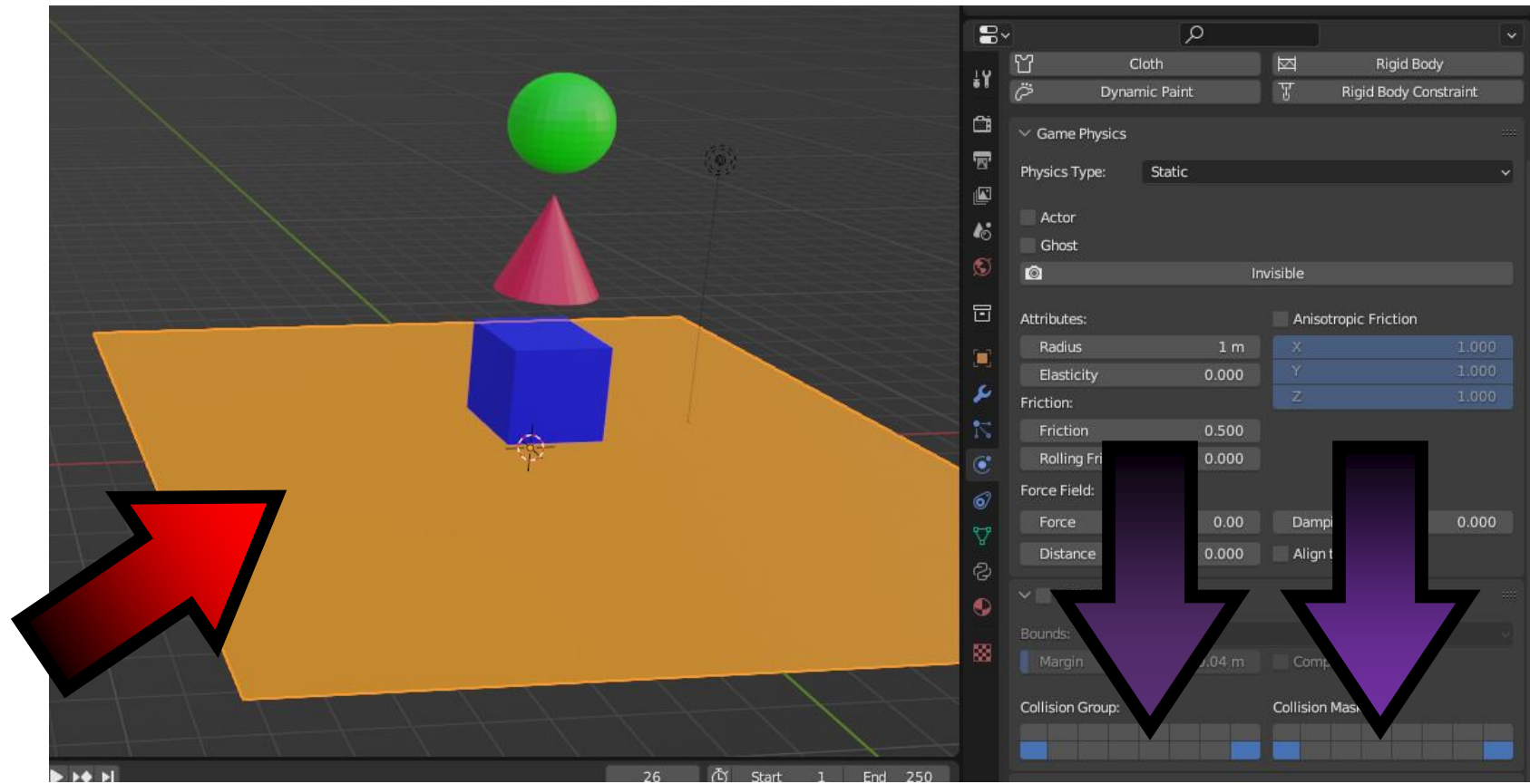
**TWO MODELS  
FLYDOWN  
THE CONE  
STOPPED ON  
THE PLANE**

## CHANGE CUBE SETTINGS SET COLLISION GROUP AND COLLISION MASKS SHOWN



# POWER OF AR AND VR

**USE SHIFT KEY**  
**CHANGE PLANE SETTINGS**  
**SET COLLISION GROUP AND COLLISION MASKS**



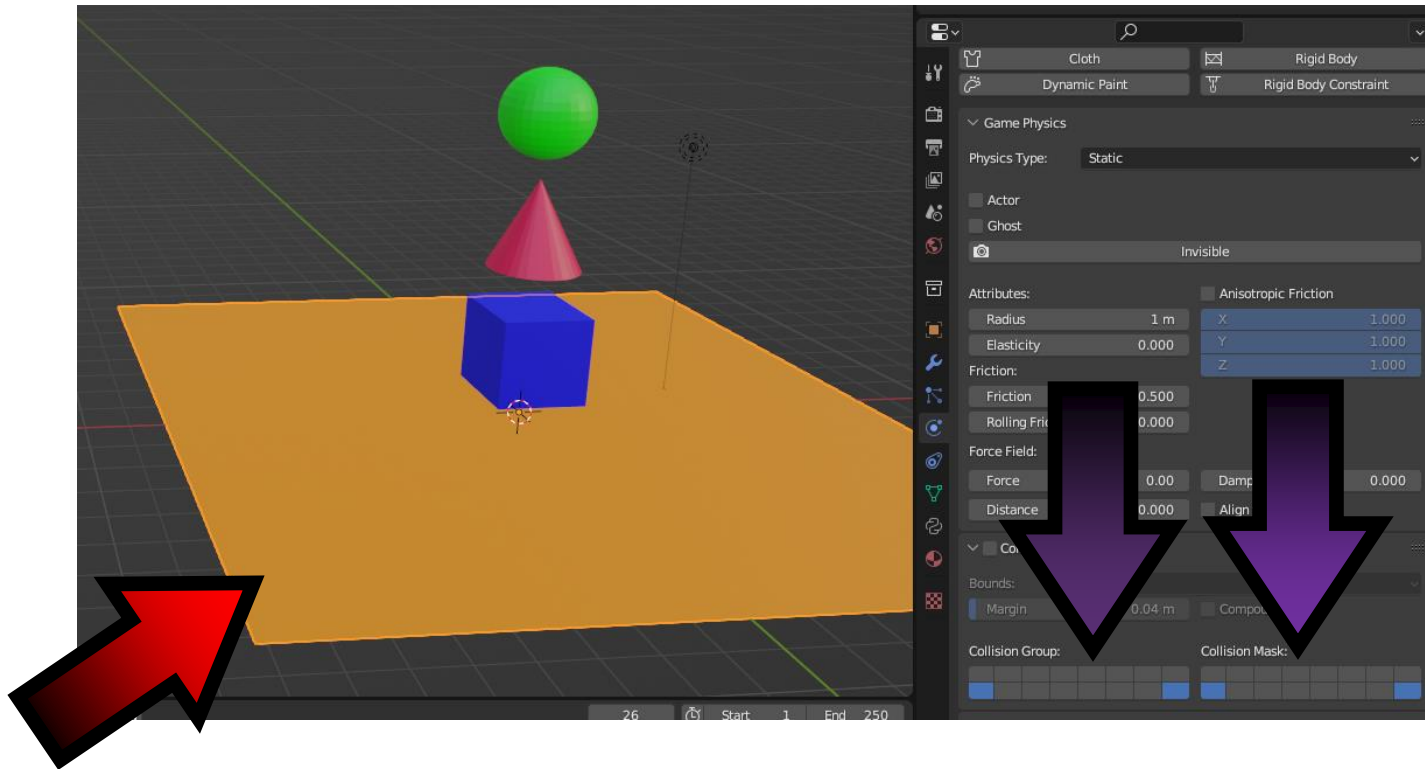
The image shows a 3D engine interface. On the left, a scene is visible with a green sphere, a pink cone, and a blue cube on a brown plane. A red arrow points to the plane. On the right, a settings panel is open, showing 'Game Physics' settings. Two purple arrows point to the 'Collision Group' and 'Collision Mask' settings.

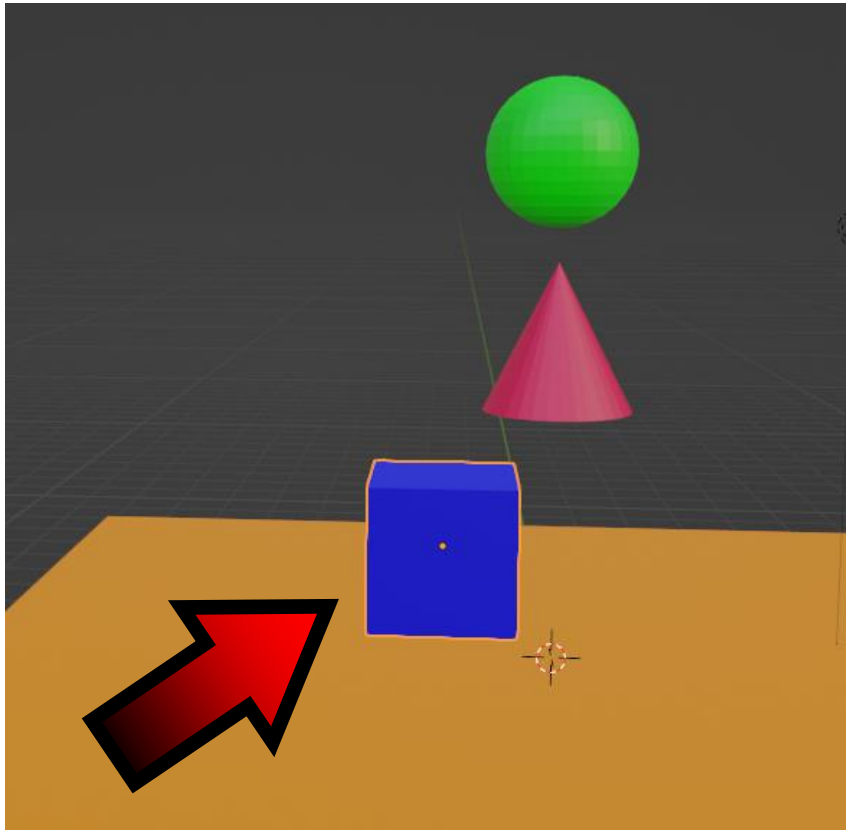
Attribute	Value
Physics Type	Static
Radius	1 m
Elasticity	0.000
Friction	0.500
Rolling Friction	0.000
Force	0.00
Distance	0.000
Margin	0.04 m

## USE SHIFT KEY

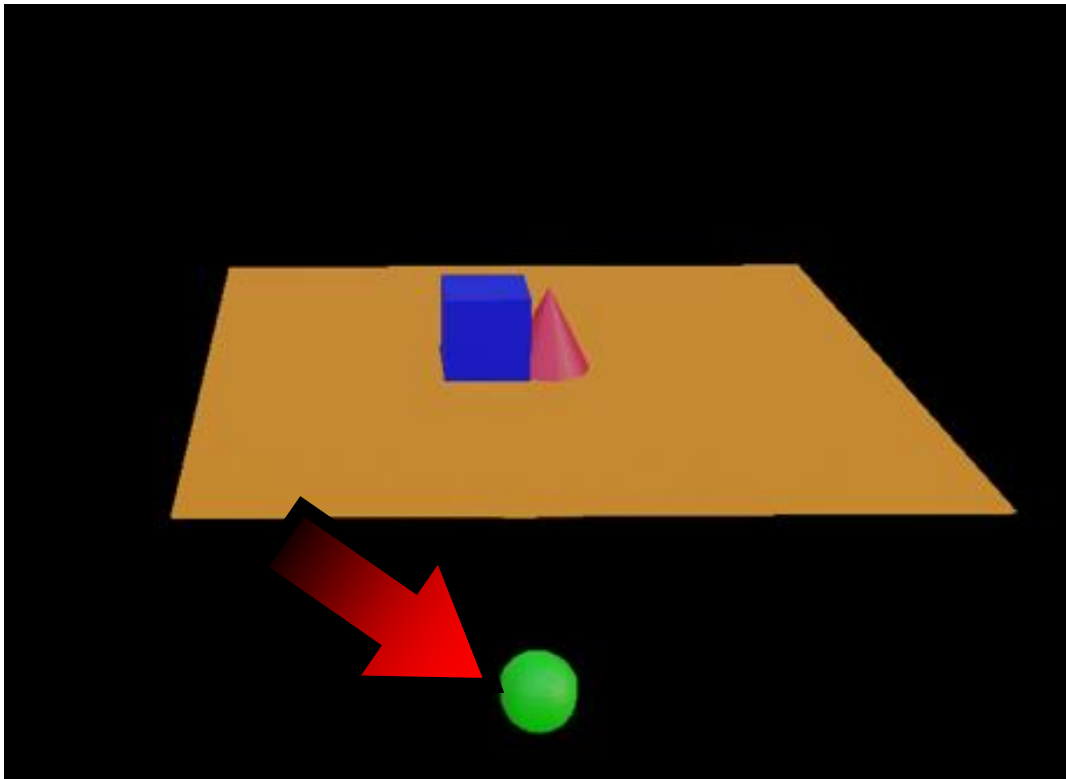
## CHANGE PLANE SETTINGS

## SET COLLISION GROUP AND COLLISION MASKS IN THE DRAWING

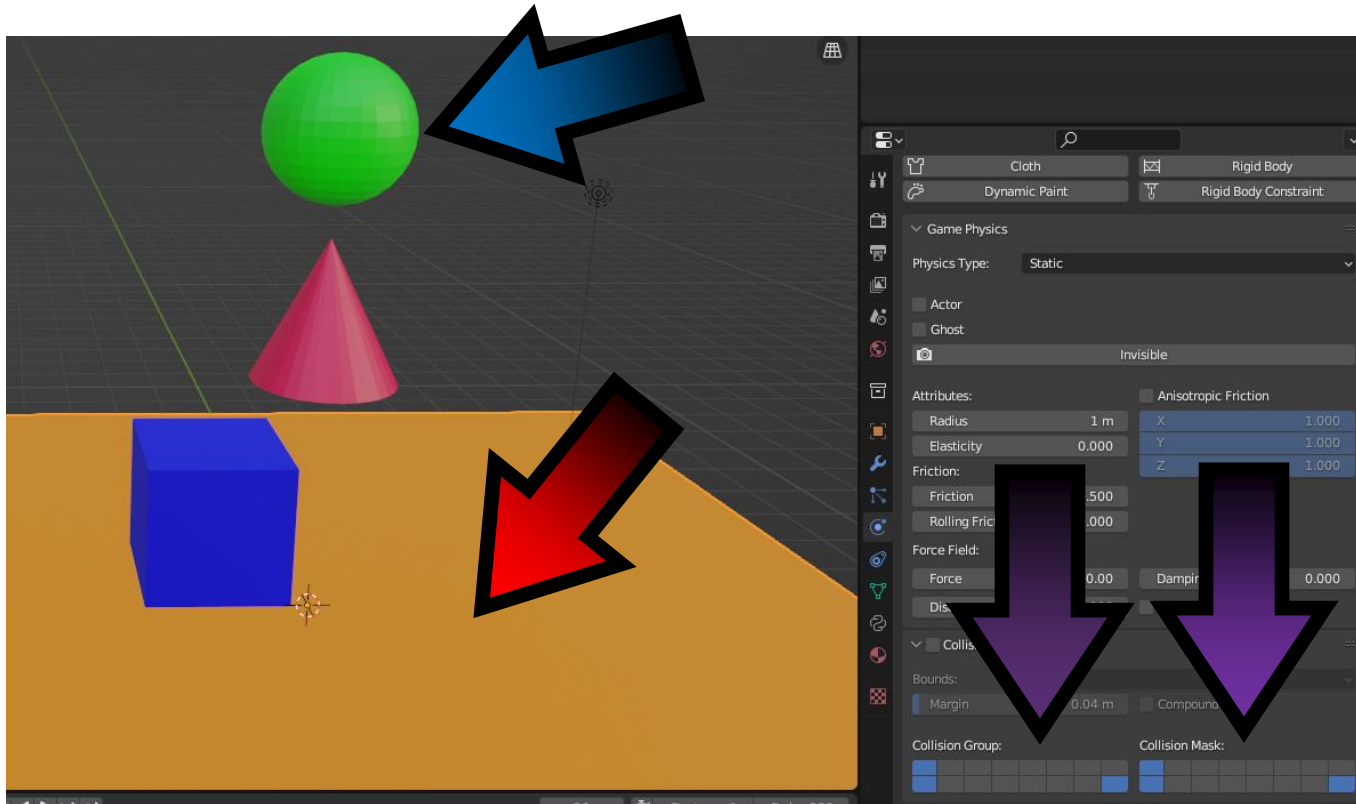




**MOVE THE  
CUBE  
A LITTLE  
ON THE X  
AXIS**



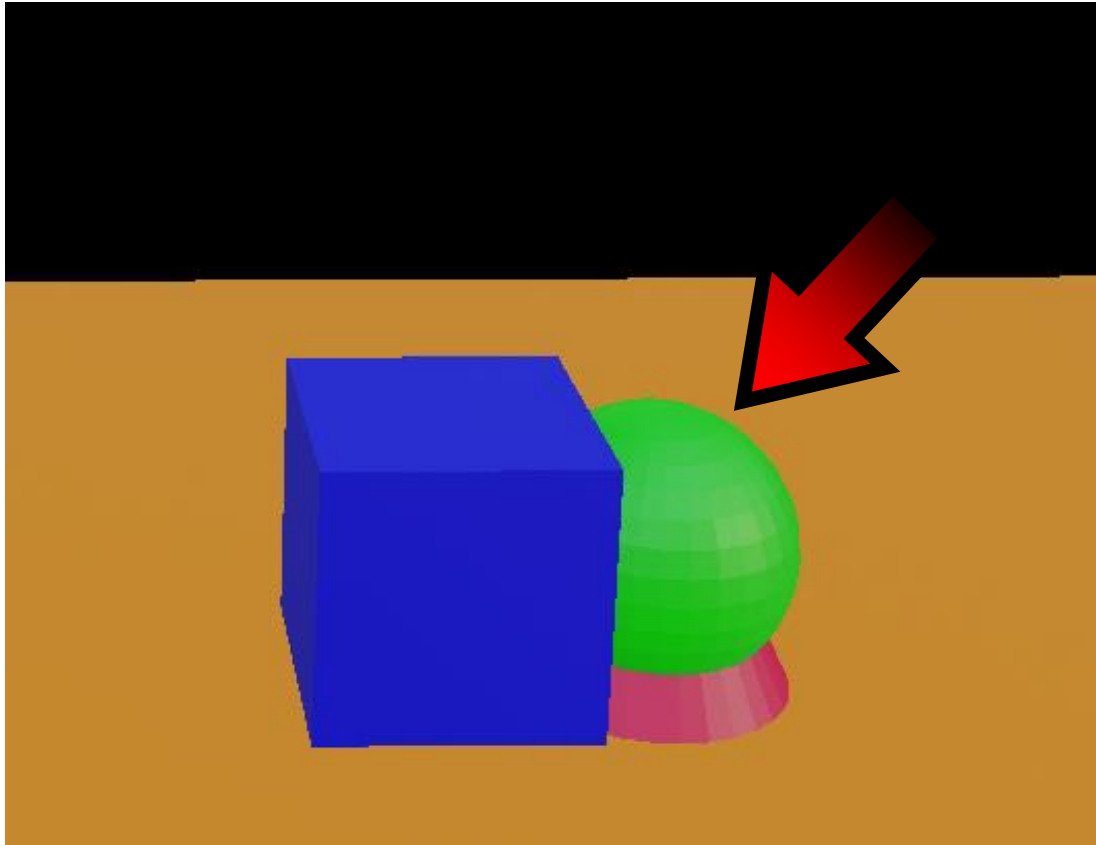
**ONLY  
SPHERE  
FLEW  
DOWN**



**CHANGE  
PLANE SETTINGS**

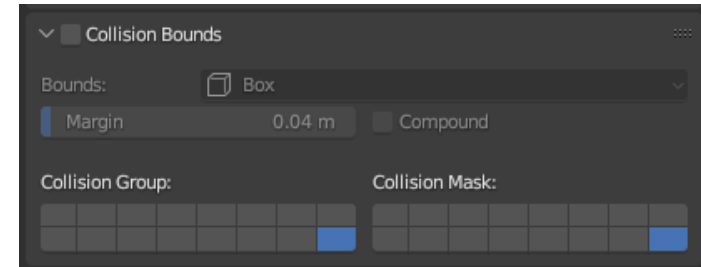
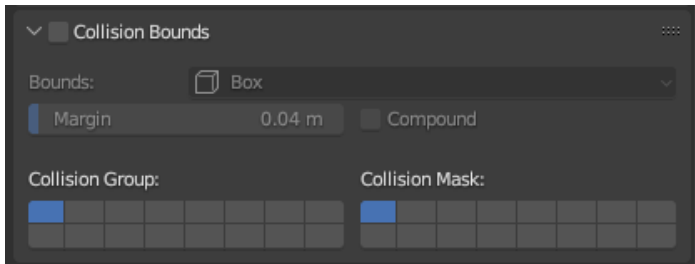
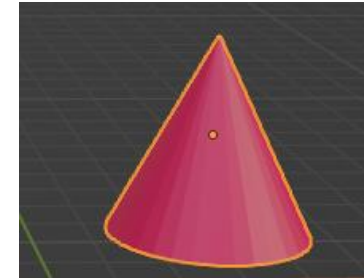
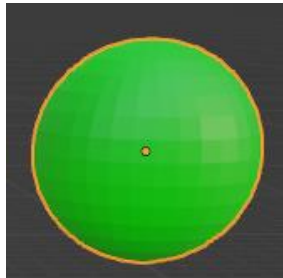
**SET  
COLLISION  
GROUP  
AND  
COLLISION MASK  
ADDING  
SPHERE**



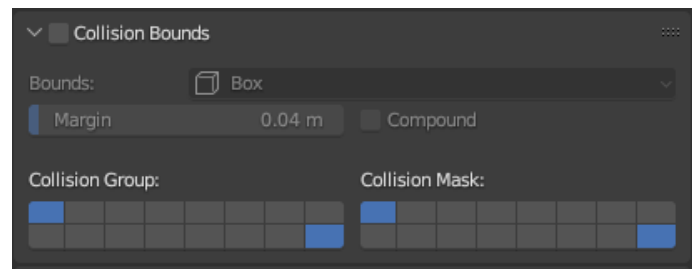


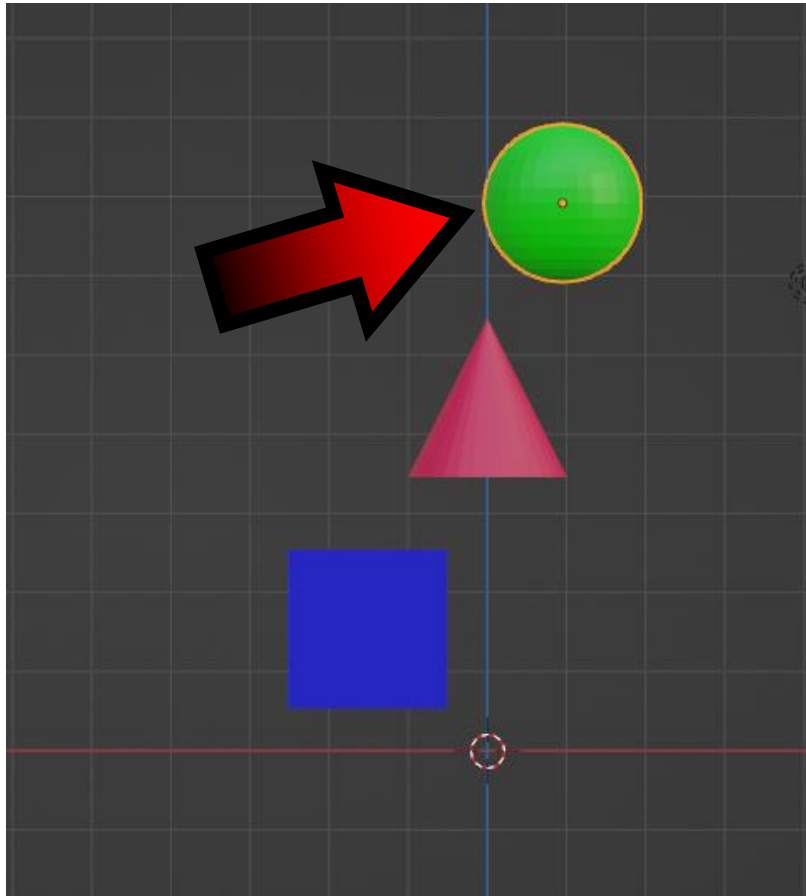
**PRESS  
P KEY**

**PLANE  
STOPPED  
ALL THE  
BLOCKS**

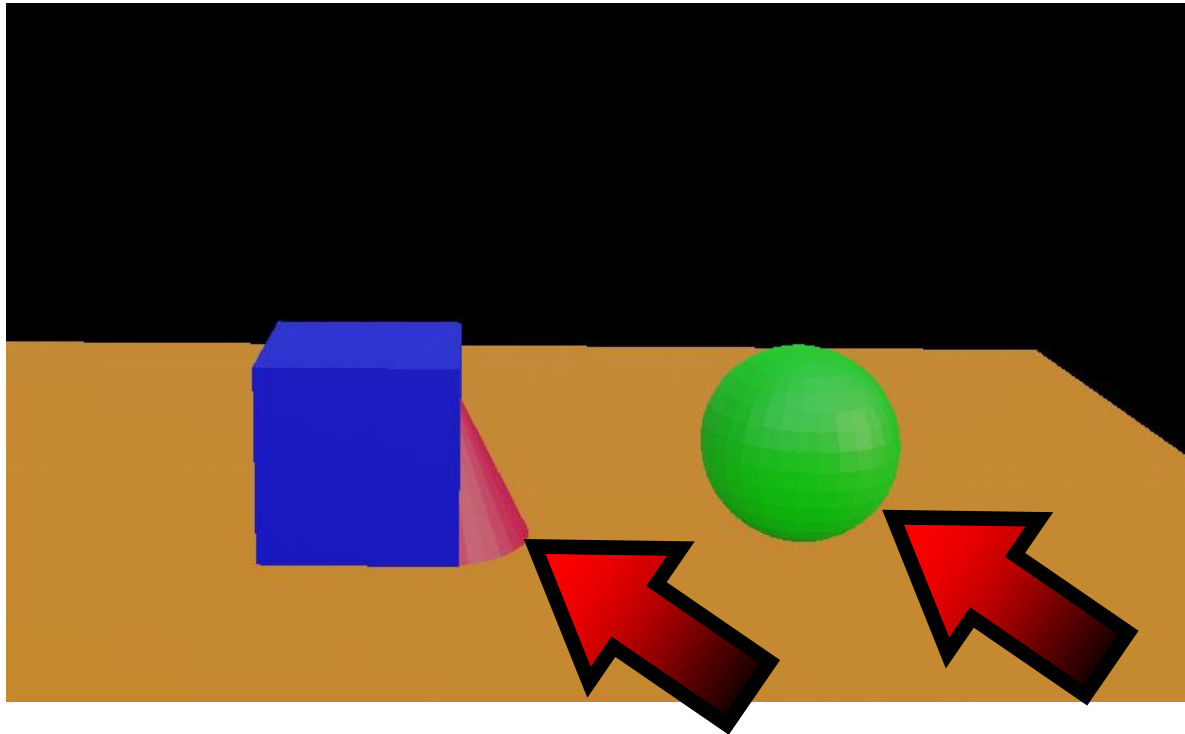


**SET THE PARAMETERS AS IN THE DRAWING FOR ONE OF THESE TWO SOLID BODY**





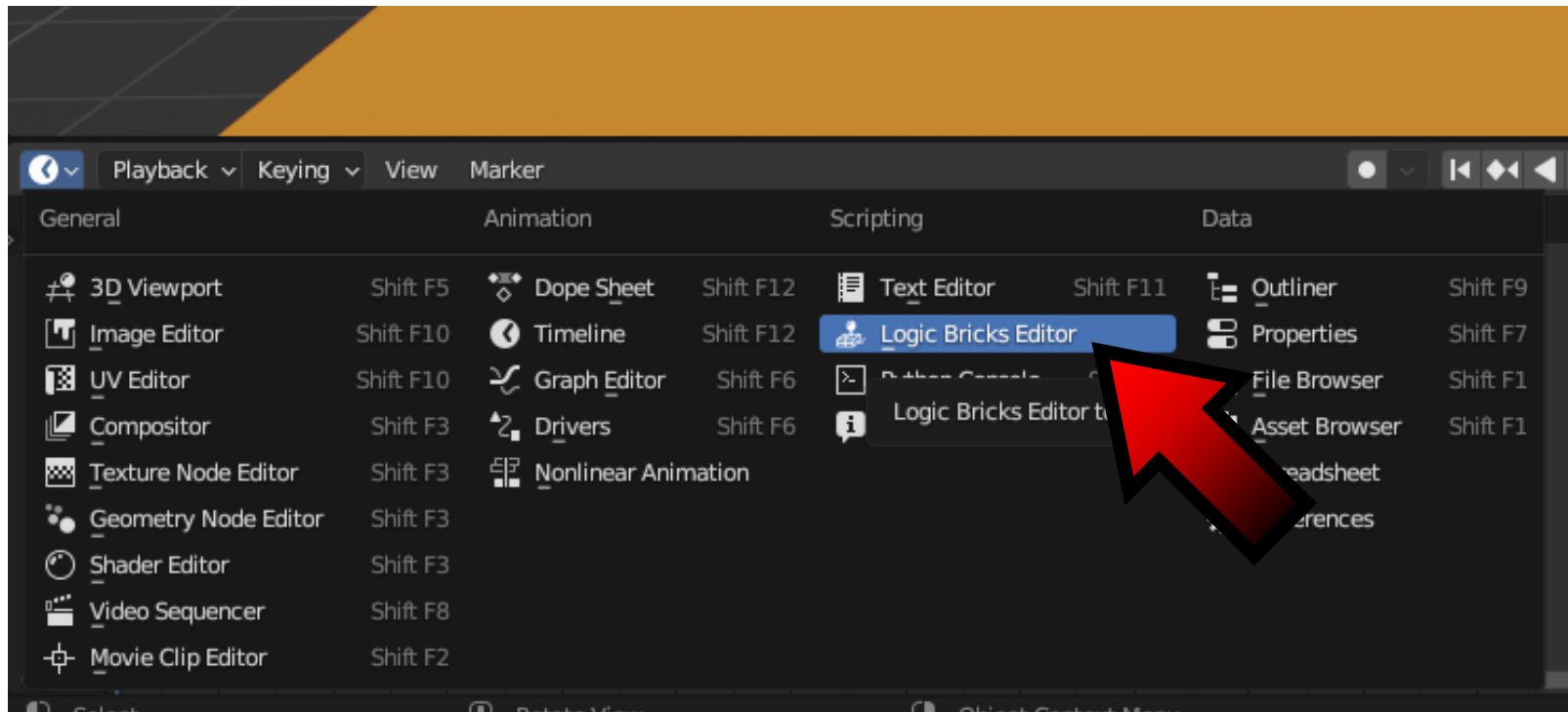
**MOVE**  
**SPHERE**  
**A LITTLE**  
**ALONG**  
**X AXIS**



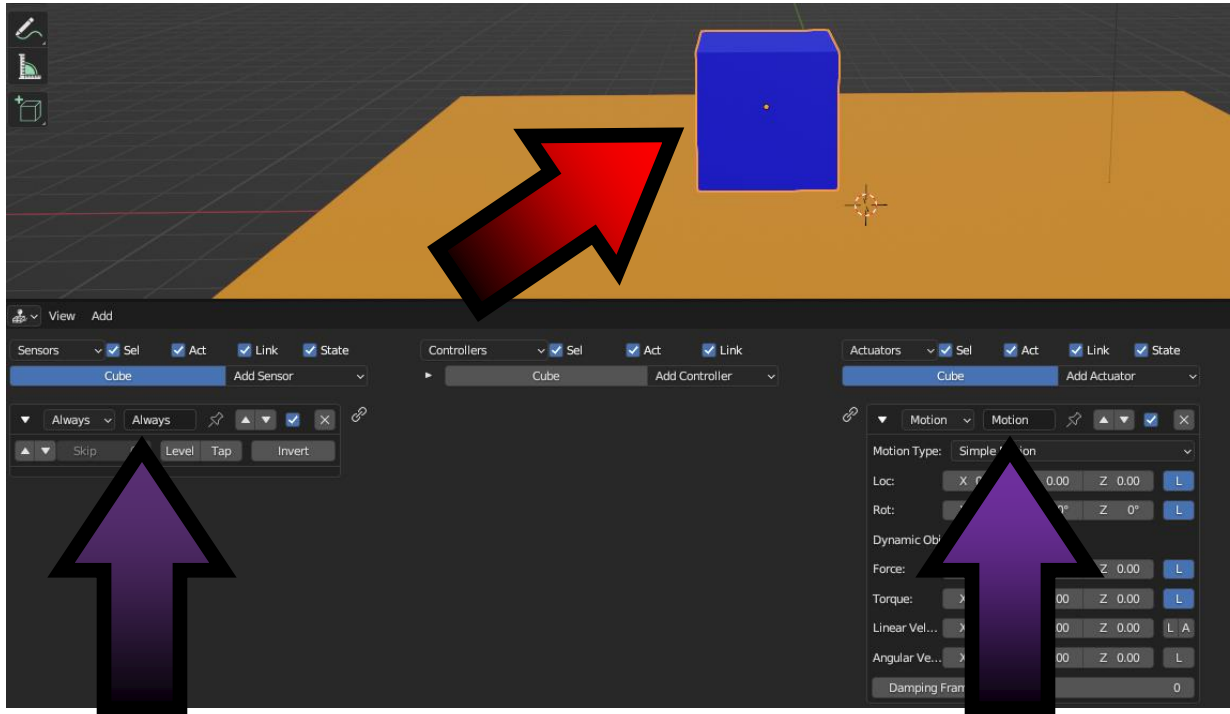
**PRESS**  
**P KEY**

**SEE HOW**  
**THE SOLIDS**  
**BEHAVE**

## CHOOSE **LOGIC BRICKS EDITOR**



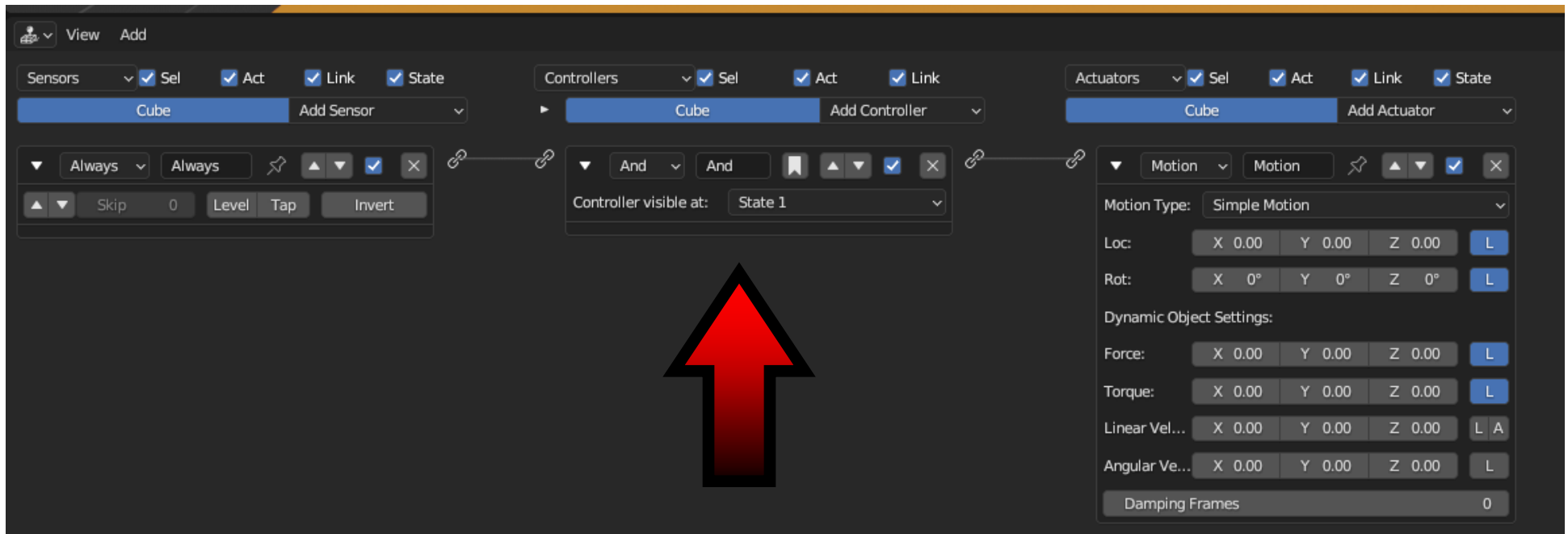
## MARK CUBE



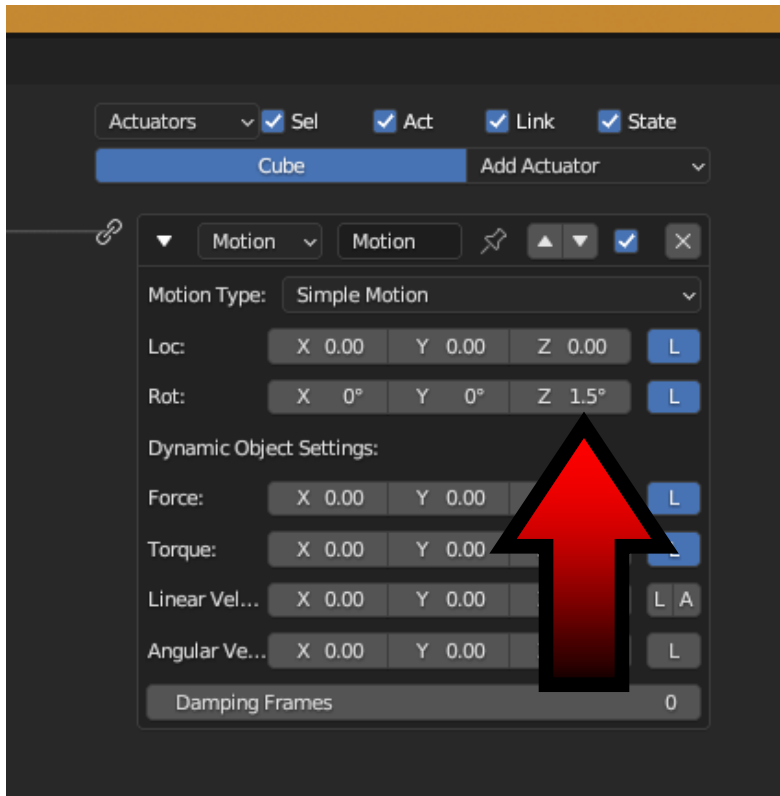
**FOR SENSORS  
SET  
ALWAYS**

**FOR  
ACTUATORS  
SET  
MOTION**

## CONNECT THE ELEMENTS

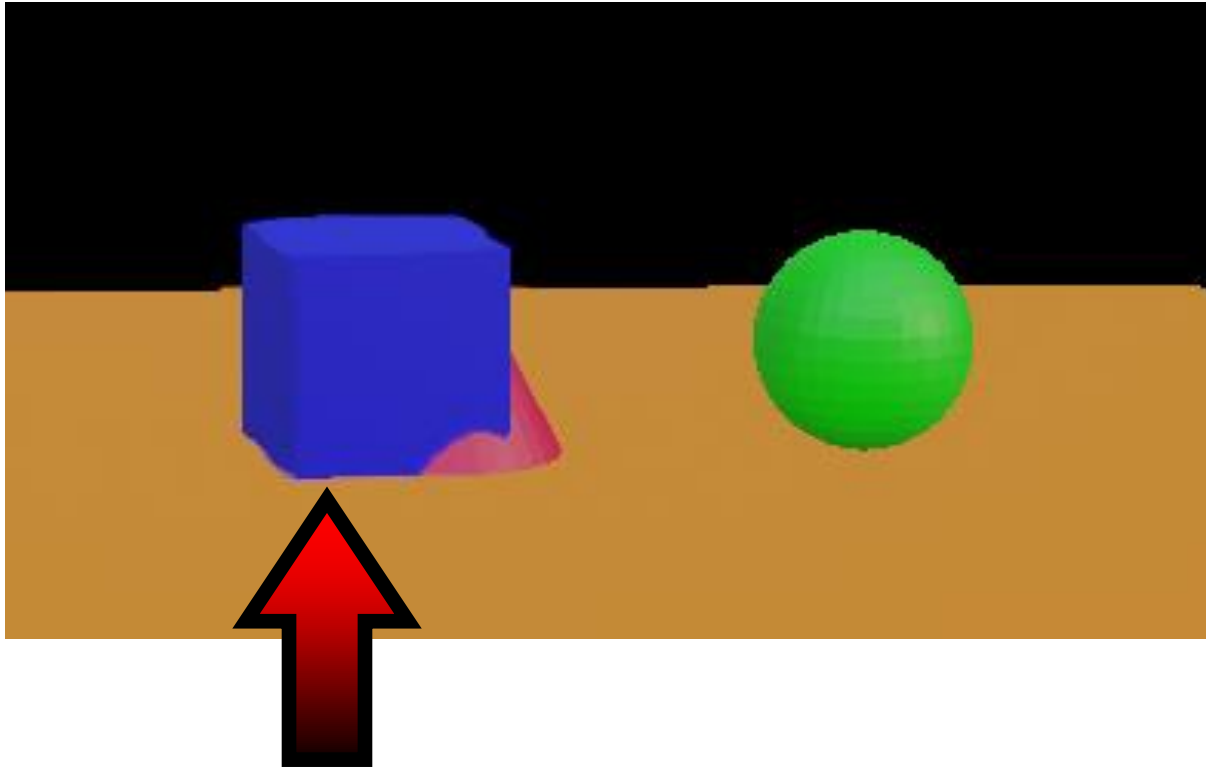


The screenshot displays a visual scripting interface with three main sections: Sensors, Controllers, and Actuators. Each section has a dropdown menu for the object type (all set to 'Cube') and an 'Add' button. The Sensors section shows an 'Always' event with a 'Skip' value of 0 and 'Level', 'Tap', and 'Invert' options. The Controllers section shows an 'And' event with a 'Controller visible at' dropdown set to 'State 1'. The Actuators section shows a 'Motion' event with 'Simple Motion' type and various parameters for location, rotation, force, torque, and velocity. A large red arrow points to the Controller event.



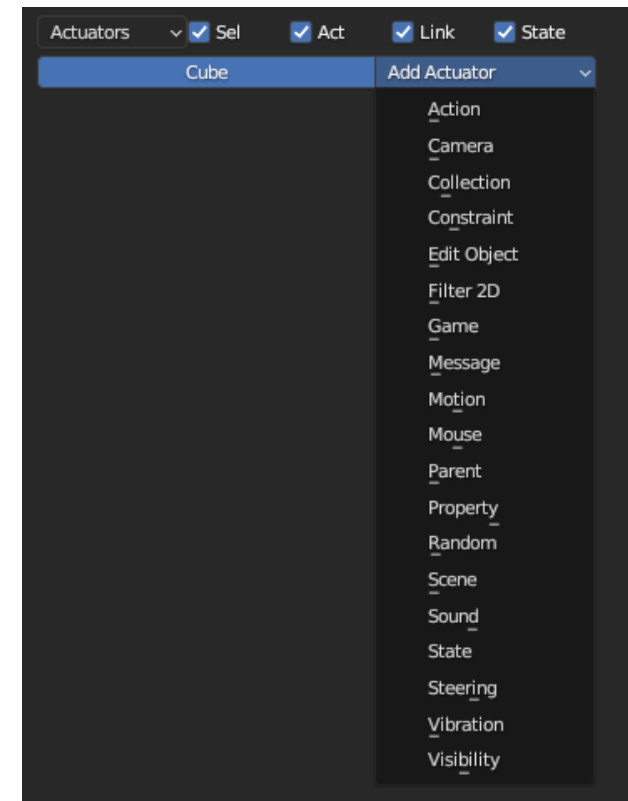
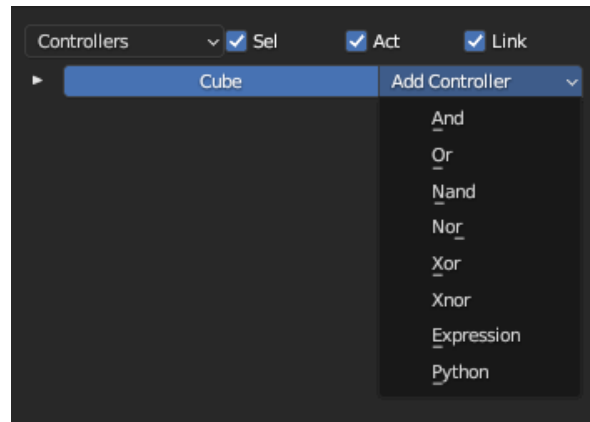
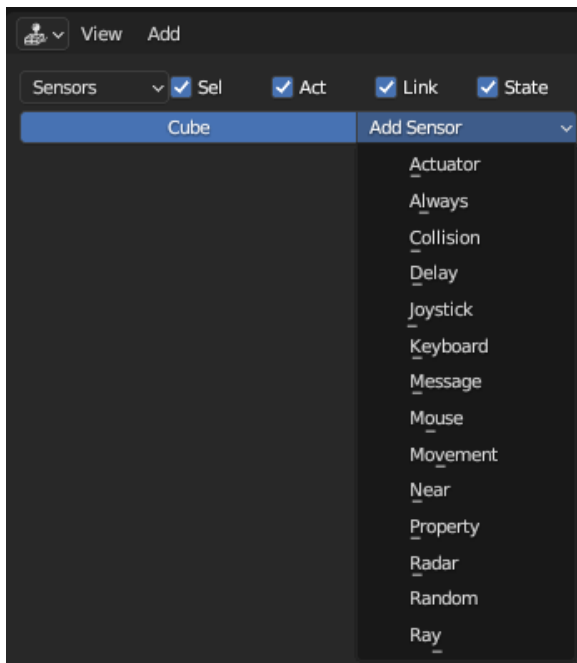
**SET  
ROTATION  
AROUND Z  
AXIS TO 1.5**





**CUBE  
WILL  
ROTATE**

## YOU CAN EXPERIMENT WITH THE SETTINGS YOURSELF



# POWER OF AR AND VR

# THANK YOU FOR YOUR ATTENTION



Co-funded by  
the European Union



2024-1-PL01-KA220-VET-000243150

JACEK KAWAŁEK