UPBGE Collision



Co-funded by the European Union



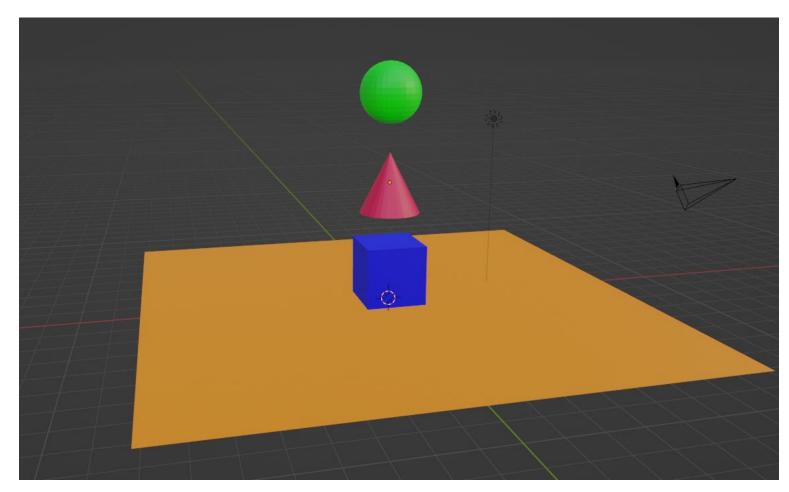
2024-1-PL01-KA220-VET-000243150

JACEK KAWAŁEK





CREATE FILE



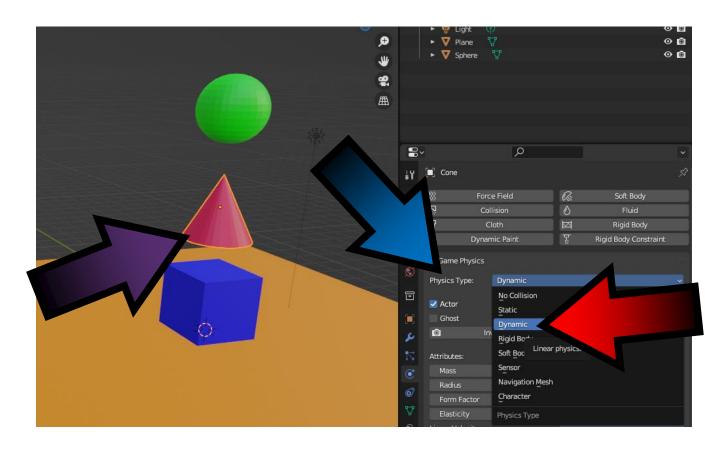








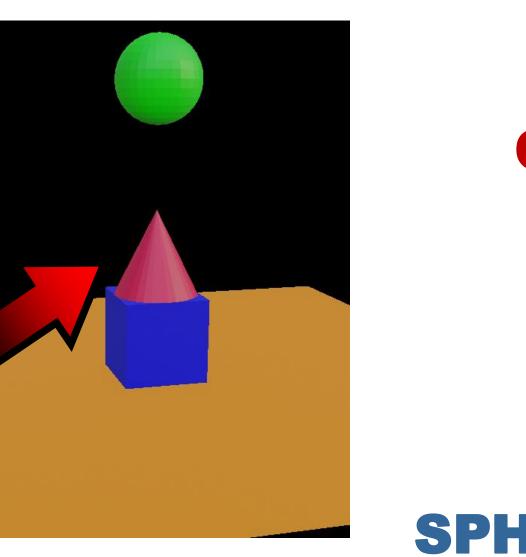
MARK THE CONE



FOR PHYSICS TYPE SELECT DYNAMIC







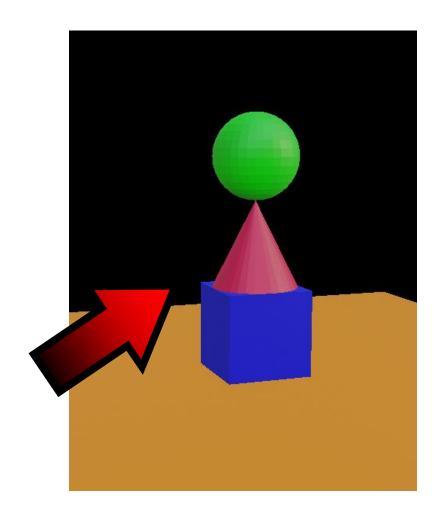
PRESS PKEY CONE FALLS DOWN

SELECT DYNAMIC FOR SPHERE AND CUBE









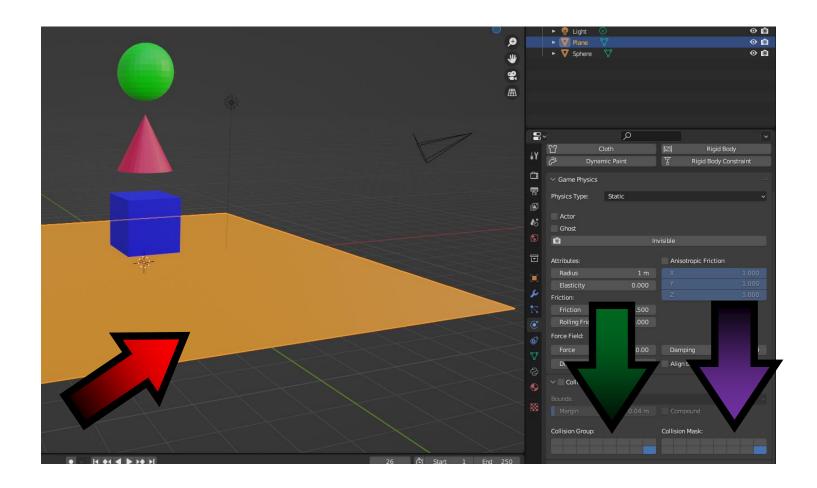
PRESS **P KEY ALL BLOCKS** FALL DOWN







SELECT PLANE SET COLLISION GROUP AND COLLISION MASK AS IN THE DRAWING



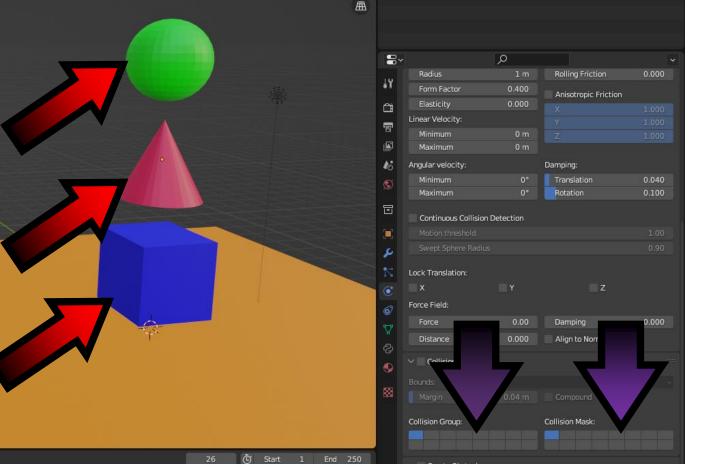




UPBGE

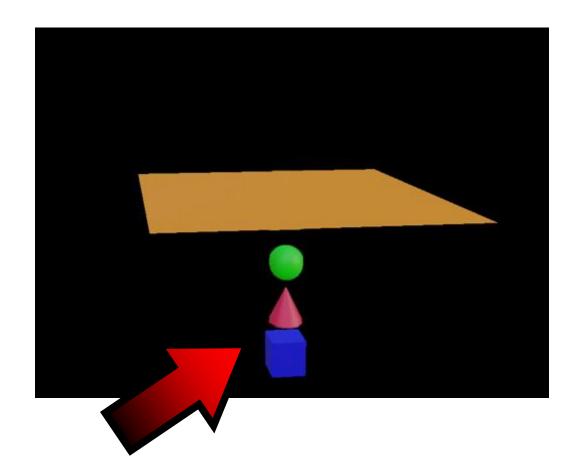


FOR THREE MODELS SET COLLISION GROUP AND COLLISION MASKAS IN THE DRAWING









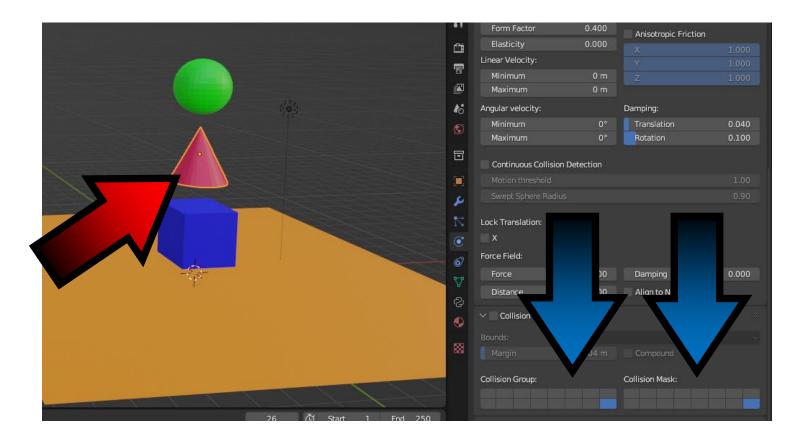
PRESS P KEY

ALL BLOCKS FLEW THROUGH THE PLANE





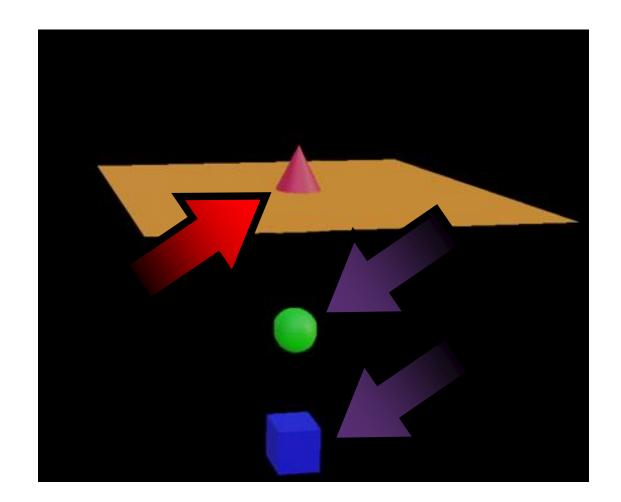
SELECT CONE



SET COLLISION GROUP AND COLLISION MASK SAME SAME AS FOR PLANE







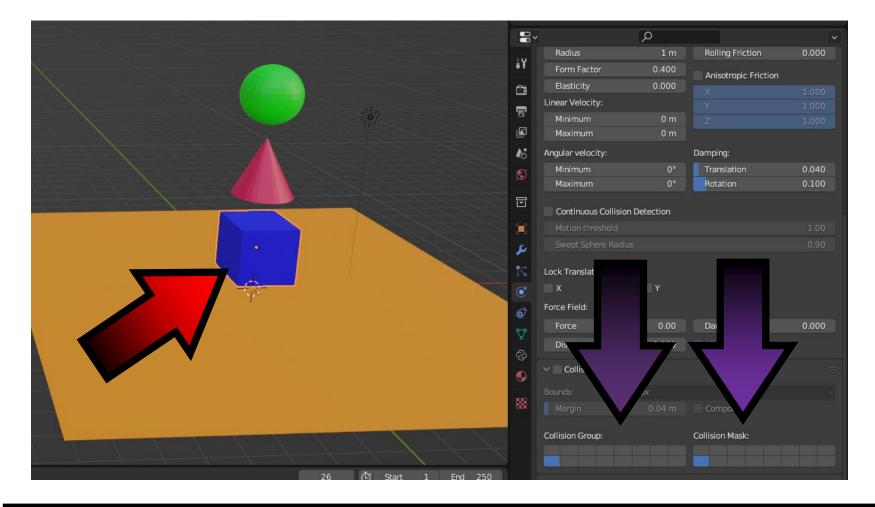
PRESS THE P KEY

TWO MODELS FLYDOWN THE CONE STOPPED ON THE PLANE





CHANGE CUBE SETTINGS SET COLLISION GROUP AND COLLISION MASKAS SHOWN

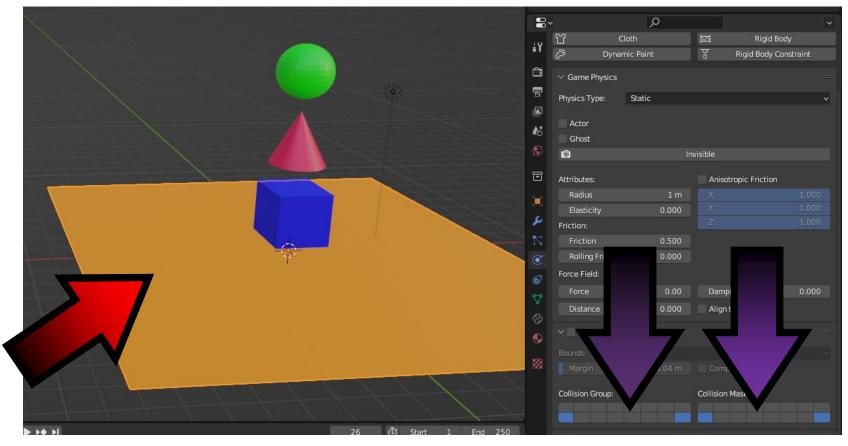








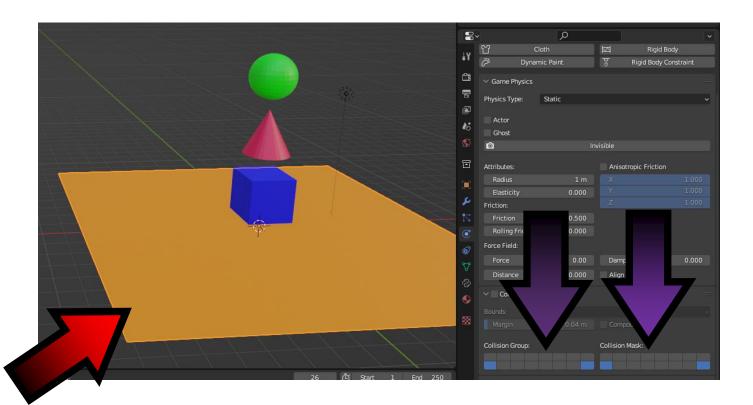
USE SHIFT KEY CHANGE PLANE SETTINGS SET COLLISION GROUP AND COLLISION MASKAS







USE SHIFT KEY

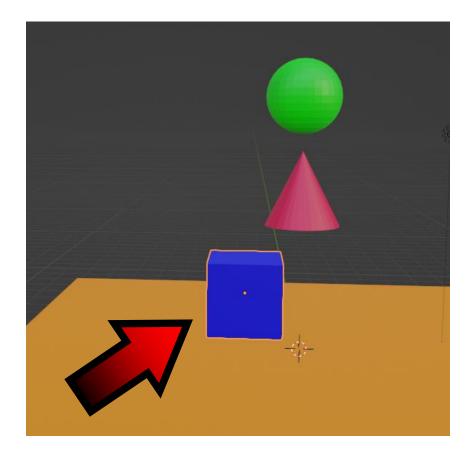


CHANGE PLANE SETTINGS

SET COLLISION GROUP AND COLLISION MASKAS IN THE DRAWING



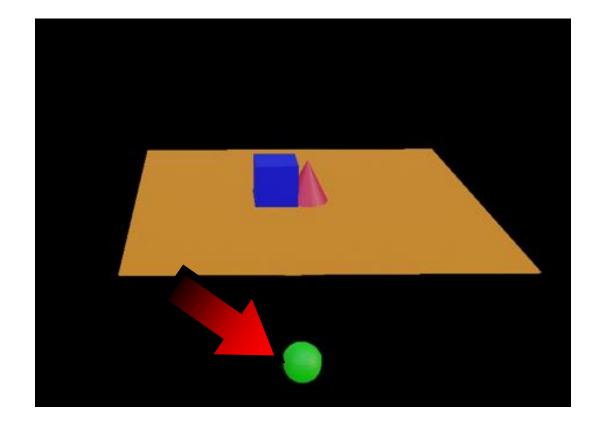




MOVE THE CUBE A LITTLE ON THE X AXIS



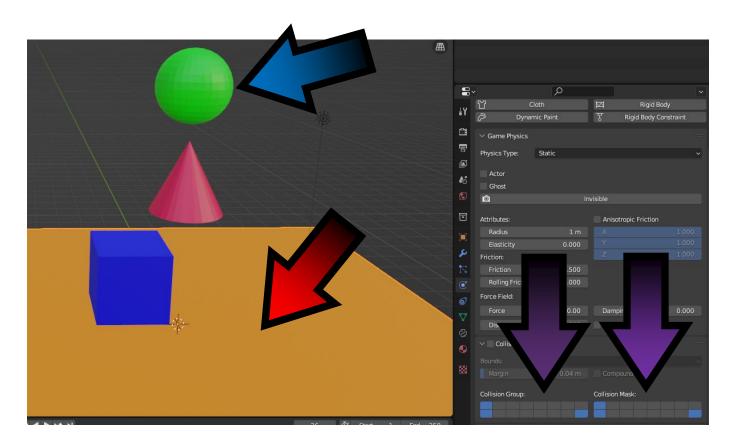




ONLY SPHERE FLEW DOWN





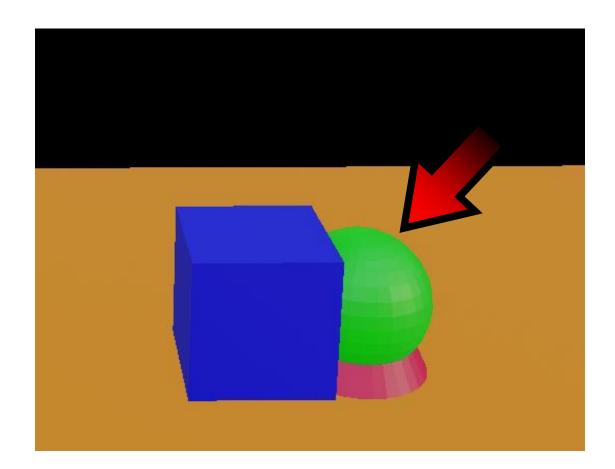


CHANGE PLANE SETTINGS

SET COLLISION GROUP AND COLLISION MASK ADDING SPHERE







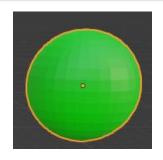
PRESS P KEY

PLANE STOPPED ALL THE BLOCKS









∼ Collision Bou	nds		
Bounds:	🗇 Box		
	0.04 m	Compound	
Collision Group:		Collision Mask:	

∼ Collision Bour	nds		
Bounds:	🗍 Box		
	0.04 m	Compound	
Collision Group:		Collision Mask:	

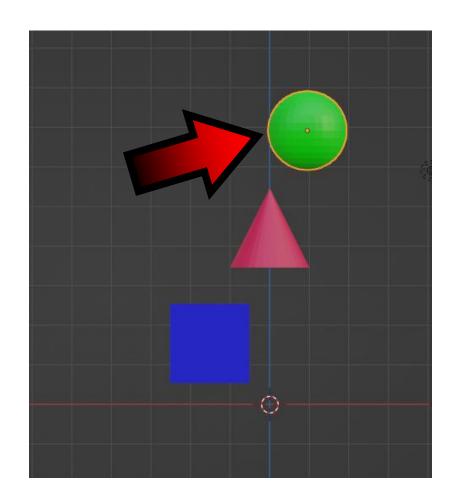
SET THE PARAMETERS AS IN THE DRAWING FOR ONE OF THESE TWO SOLID BODY

✓ Collision Bour	nds		
Bounds:	🗍 Box		
Margin	0.04 m	Compound	
Collision Group:		Collision Mask:	





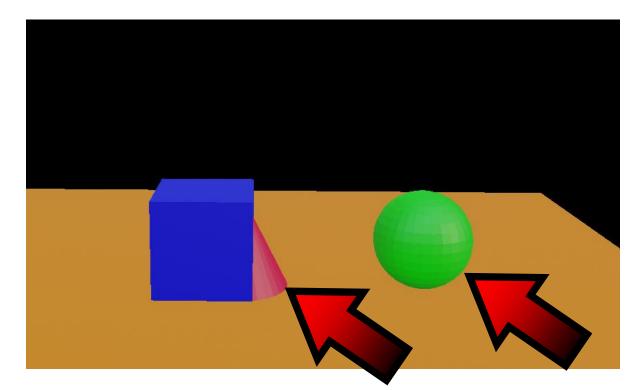




MOVE SPHERE A LITTLE ALONG X AXIS







PRESS PKEY

SEE HOW THE SOLIDS BEHAVE





CHOOSE LOGIC BRICKS EDITOR

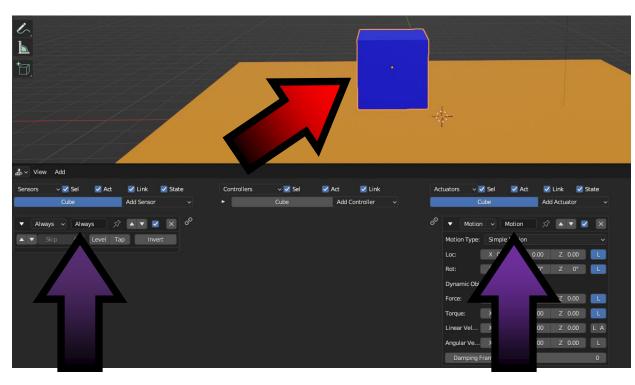
Ø ~	Playback ~ Keying	∽ View	Marker				• •		
Gen	eral		Animation		Scripting		Data		
#	3D Viewport	Shift F5	•≣• Dope Sheet	Shift F12	Text Editor	Shift F11		Shift F9	
	Image Editor	Shift F10	🔇 Timeline	Shift F12	🍰 Logic Bricks Ed	itor	吕 Properties	Shift F7	
B	UV Editor	Shift F10	🏒 Graph Editor	Shift F6	>		File Browser	Shift F1	
	Compositor	Shift F3	[▲] 2 D <u>ri</u> vers	Shift F6	Logic Bricks E	ditor to	Asset Browser	Shift F1	
	Texture Node Editor	Shift F3	티코 Nonlinear Anin	nation			readsheet		
₹.	Geometry Node Editor	Shift F3					, ⊿rences		
O	Shader Editor	Shift F3							
o***	Video Sequencer	Shift F8							
-¢-	Movie Clip Editor	Shift F2							
10	alaak		Detete Merry			Samharsh Manar			







MARK CUBE



FOR SENSORS SET ALWAYS

FOR ACTUATORS SET MOTION





CONNECT THE ELEMENTS

🏭 🗸 View Add						
Sensors 🗸 🗹 Sel 🗹 Act	🗹 Link 🛛 🗹 State	Controllers 🗸 🗸 Sel	🗹 Act 🛛 🗹 Link	Actuators ~	🗹 Sel 🛛 🔽 Act 🚦	🖌 Link 🛛 🗹 State
Cube 4	Add Sensor 🗸 🗸	► Cube	Add Controller	·	Cube A	dd Actuator 🗸 🗸
▼ Always ∨ Always 🔗	▲ ▼			ළ ව 🔻 Motic	n v Motion ج	? 🔺 🗹 🗙
▲ ▼ Skip 0 Level Tap	Invert	Controller visible at: State	1 ~	Motion Type	: Simple Motion	
				Loc:	X 0.00 Y 0.00	Z 0.00
				Rot:	X 0° Y 0°	Z 0° L
				Dynamic Ob	ject Settings:	
				Force:	X 0.00 Y 0.00	Z 0.00
				Torque:	X 0.00 Y 0.00	Z 0.00
				Linear Vel	X 0.00 Y 0.00	Z 0.00 L A
				Angular Ve	. X 0.00 Y 0.00	Z 0.00 L
				Damping	Frames	0



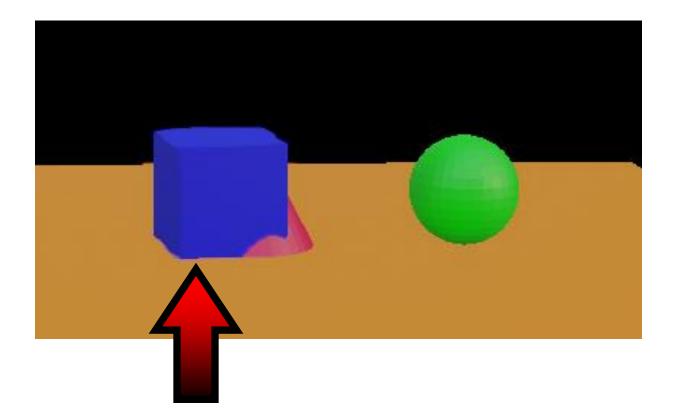


Actua	ators 🗸	🖌 Sel	🗹 Act	🛃 Linl	k 🗹 :	State
	С	ube		Add Act	tuator	~
P	 Motion 	1 v M	otion	\$ \$		×
P	Motion Type:	Simple	Motion			~
ι	Loc:	X 0.00	Y 0	.00 Z	0.00	L
F	Rot:	X 0°	Y	0° Z	1.5°	L
C	Dynamic Obje	ect Settings	:			
F	Force:	X 0.00	Y 0	.00		L
1	Torque:	X 0.00	Y 0	.00		
ι	inear Vel	X 0.00	Y 0	.00		LA
ļ	Angular Ve	X 0.00	Y 0	.00		
	Damping F	rames				0

SET ROTATION AROUNDZ AXIS TO 1.5







CUBE WILL ROTATE







YOU CAN EXPERIMENT WITH THE SETTINGS YOURSELF

🛃 🗸 View	Add			
Sensors	v 🗹 Sel	🗹 Act	🗹 Link	🛃 State
	Cube		Add Sensor	· •
			Actuat	or
			Alway	s
			Collisi	on
			Delay	
			Joystic	:k
			_ Keybo	ard
			Messa	ge
			Mouse	
			Mover	nent
			Near	
			Proper	ty
			Radar	
			Rando	m
			Ray	

Controllers	v 🗹 Sel	V A	Act 🗹 Link	
•	Cube		Add Controller	
			And	
			Or	
			Nand	
			Nor	
			Xor	
			Xnor	
			Expression	
			Python	

Actuators	v 🗹 Sel	🗹 Act	🗹 Link 🛛 🗹 State
	Cube		Add Actuator 🛛 🗸 🗸
			Action
			Camera
			Collection
			Constraint
			Edit Object
			<u>F</u> ilter 2D
			Game
			Message
			Motion
			Mouse
			Parent
			Property
			Random
			Scene
			Sound
			State
			Steering
			Vibration
			Visibility

THANK YOU FOR YOUR ATTENTION



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