CHAPTER 8:

CREATING A MENU

A MENU PLAYS A VERY IMPORTANT ROLE IN YOUR GAME: IT IS THE FIRST THING THAT THE PLAYER SEES. IT IS THEREFORE IN YOUR BEST INTEREST TO MAKE YOUR MENU AS APPEALING AS POSSIBLE. THIS CHAPTER WILL GIVE YOU THE BASICS, AND IN CHAPTER 10 YOU WILL LEARN HOW TO APPLY TEXTURES TO OBJECTS. THAT WOULD ALLOW YOU TO PUT A RENDERED PHOTO OF YOUR SHIP OR SOMETHING AS YOUR MENU BACKGROUND.

THERE ARE SO MANY OPTIONS TO CHOOSE FROM WHEN MAKING A MENU. YOUR BEST BET IS TO FIGURE OUT WHAT YOU'D LIKE YOUR MENU TO LOOK LIKE BEFOREHAND (DRAW IT ON PAPER OR SOMETHING SIMILAR) SO THAT YOU DON'T GET TOO CARRIED AWAY WITH ALL THE THINGS YOU COULD INCLUDE. FOR EXAMPLE, THIS CHAPTER STARTED OUT WITH THREE BUTTONS ON THE MENU. I REALIZED THAT THE CHAPTER WAS GETTING A BIT LONG, SO I DELETED ONE OF THE BUTTONS AND JUST FOCUSED ON GETTING THE 'PLAY' AND 'EXIT' BUTTONS WORKING.

LEARN FROM MY MISTAKE. DON'T TRY TO DO TOO MUCH AT FIRST. AESTHETICS ARE IMPORTANT TO A MENU, BUT YOU SHOULD SPEND MOST OF YOUR TIME GETTING IT TO FUNCTION CORRECTLY FIRST.

HERE IS A LIST OF BLENDER HOTKEYS:

SHIFT+A: ADD AN OBJECT TO SCENE

TAB: TOGGLE OBJECT AND EDIT MODE

A: SELECT/DESELECT ALL OBJECTS IN A SCENE

S: SCALE

R: ROTATE

G: MOVE

X: DELETE

F: MAKE A FACE

C: SELECT SMALL AREAS

B: SELECT A LARGE AREA

CTRL+R: ADD LOOP CUT

CTRL+Z: UNDO

5: TOGGLE PERSPECTIVE/ORTHO MODE

1 (NUM PAD): FRONT VIEW (CTRL+1=OPPOSITE)

3 (NUM PAD): SIDE VIEW (CTRL+3=OPPOSITE)

7 (NUM PAD): TOP VIEW (CTRL+7=OPPOSITE)

HOLD MMB+DRAG: ROTATE VIEWPORT

SCROLL MMB: ZOOM IN/OUT

HOLD SHIFT+MMB: SHIFT VIEWPORT

SHIFT+SPACEBAR: MAXIMIZE VIEWPORT

SHIFT+S: SET CURSOR

CTRL+J: JOIN MESHES

Z: TOGGLE WIREFRAME MODE

SHIFT+D: DUPLICATE
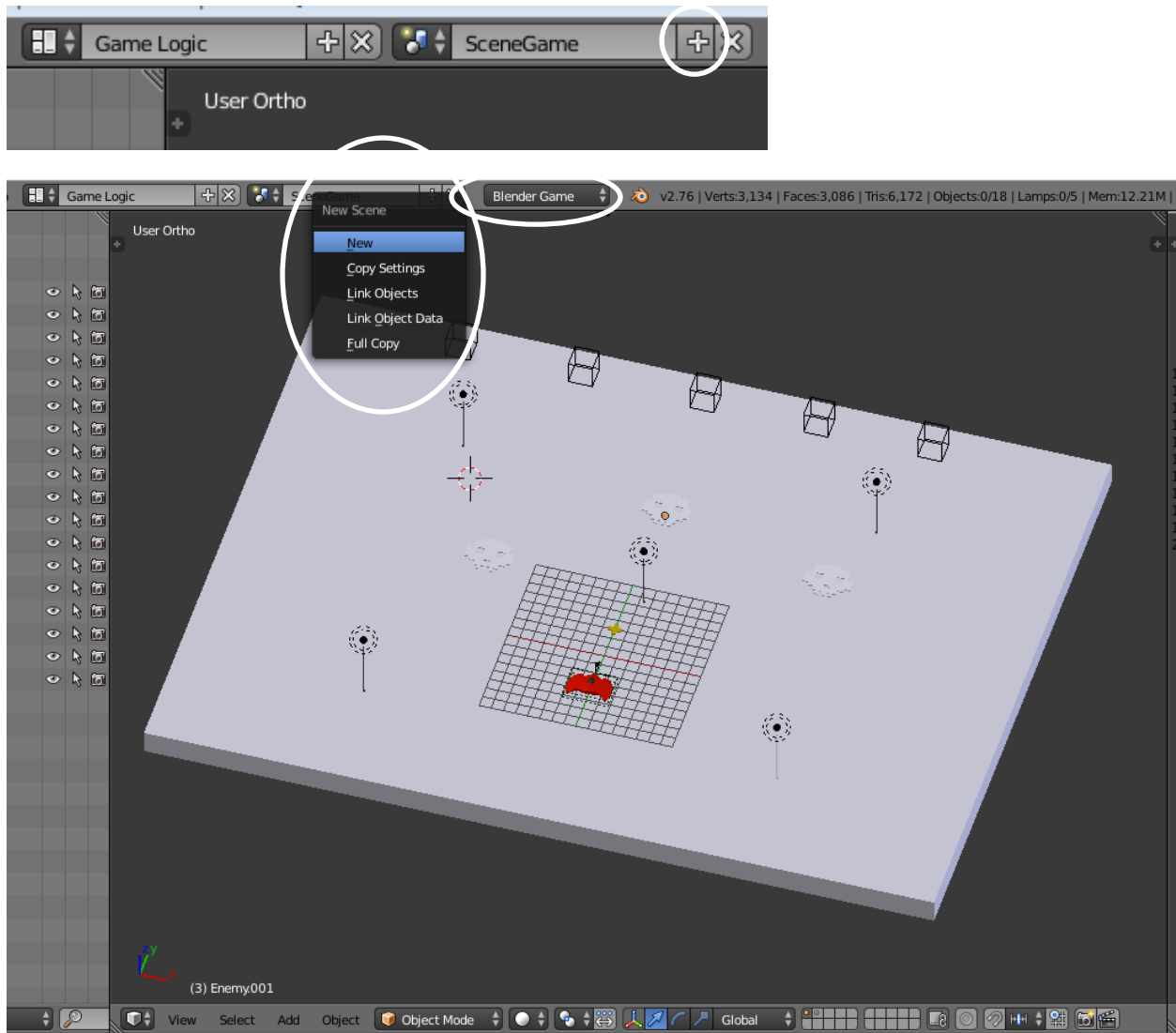
1) LET'S START OUR MENU BY ADDING A NEW SCENE TO OUR GAME. FIRST, MAKE SURE YOU ARE IN 'BLENDER GAME'. THEN, CLICK ON THE PLUS SIGN IN THE SCENE BOX.
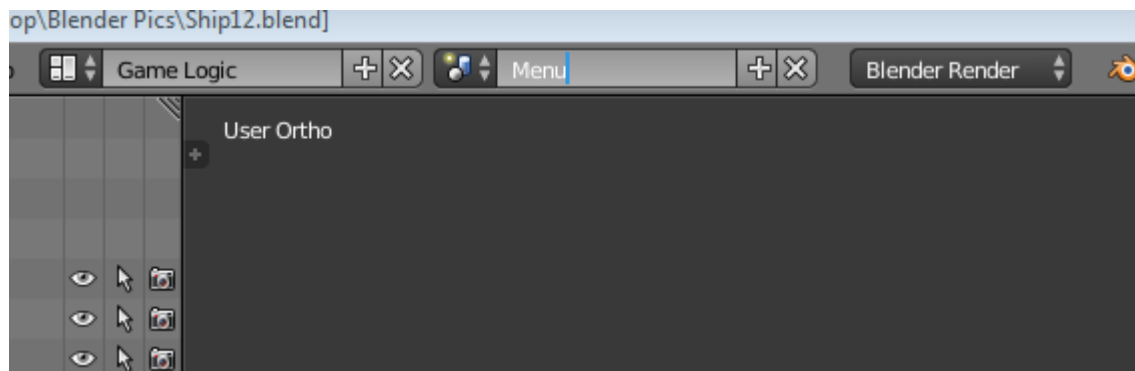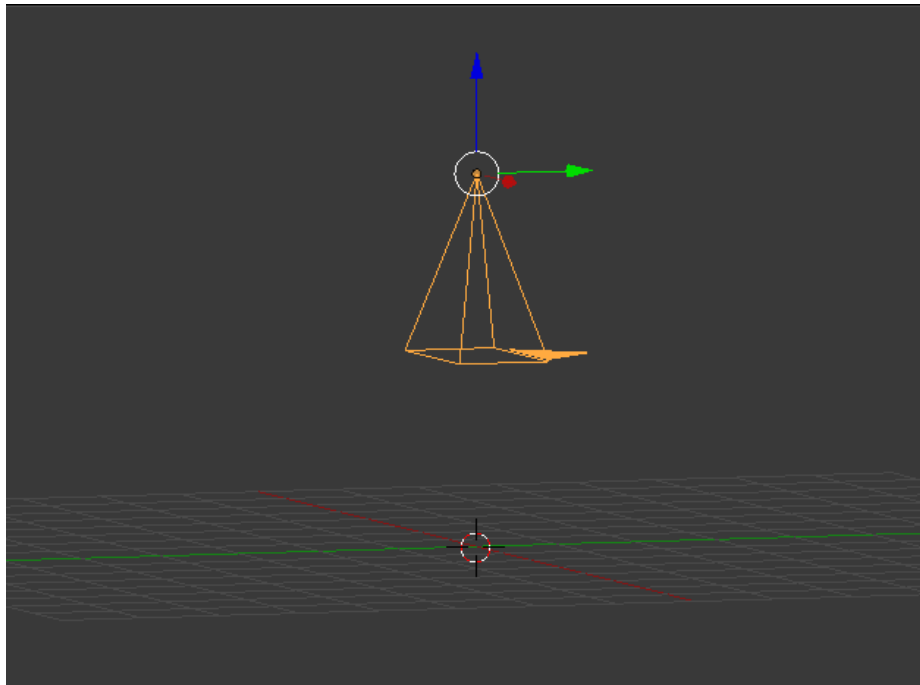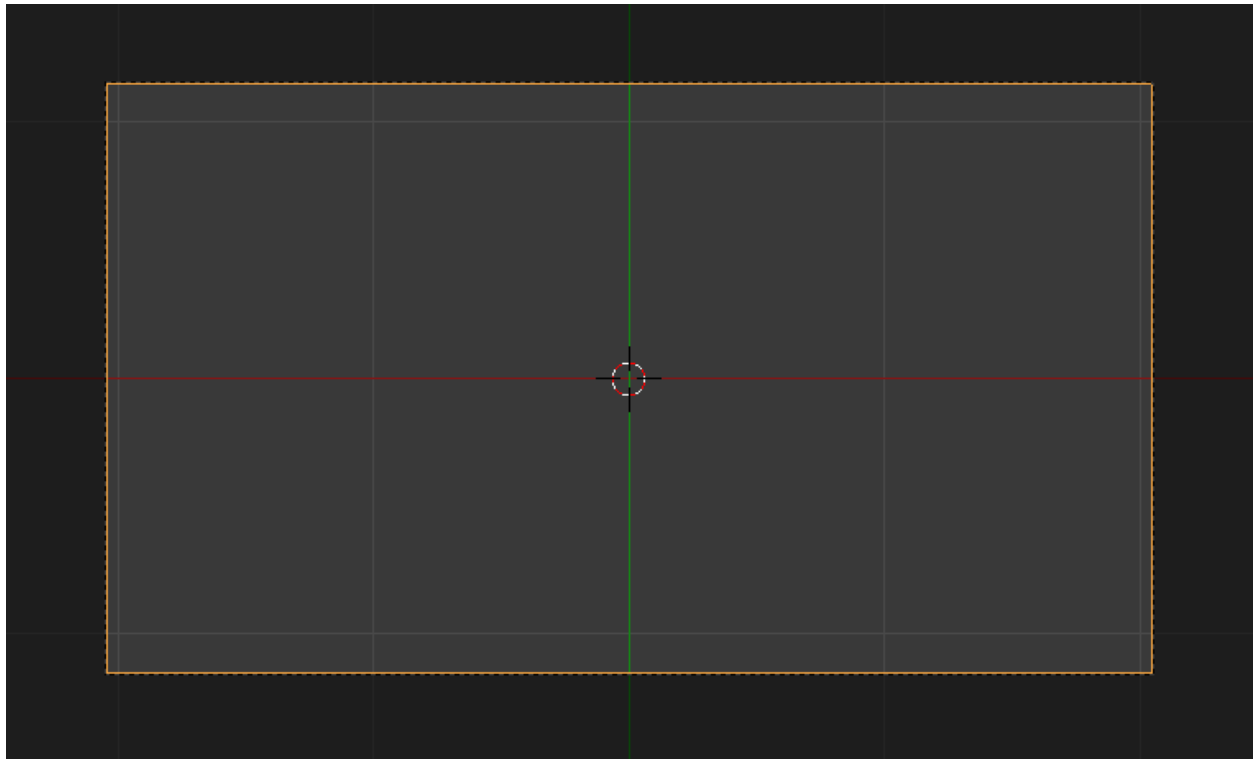
2) CALL THIS SCENE 'MENU'.
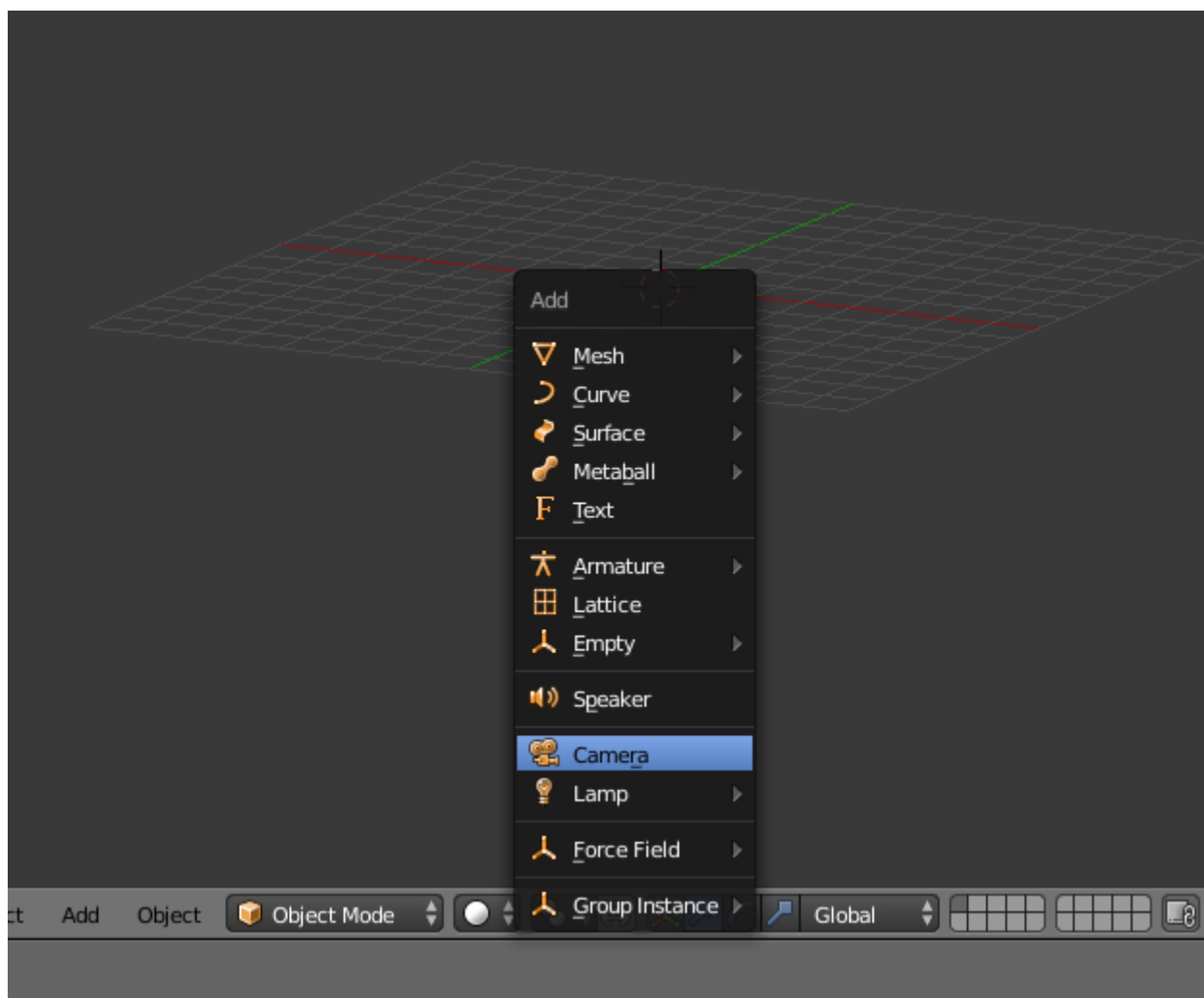
3) PRESS 'SHIFT+A' AND ADD A
   CAMERA.
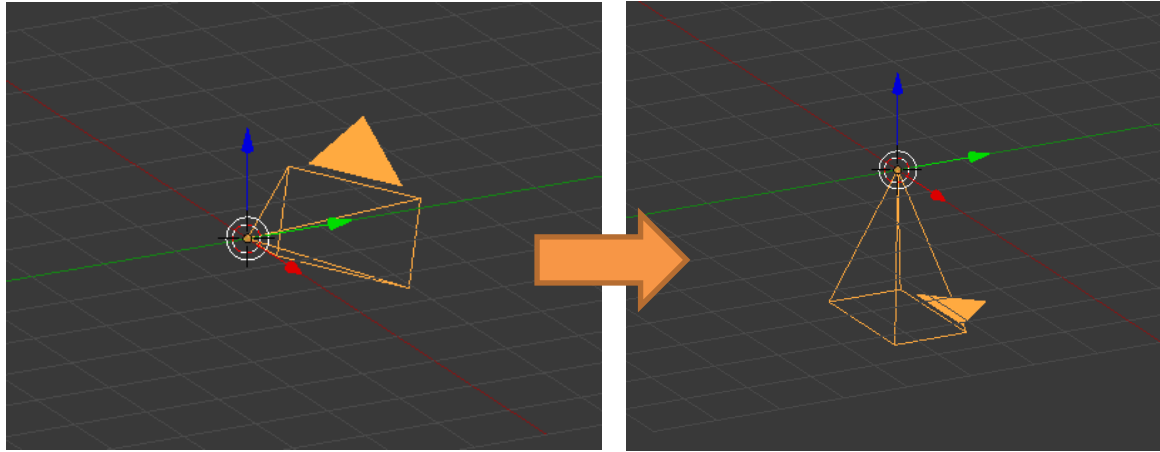
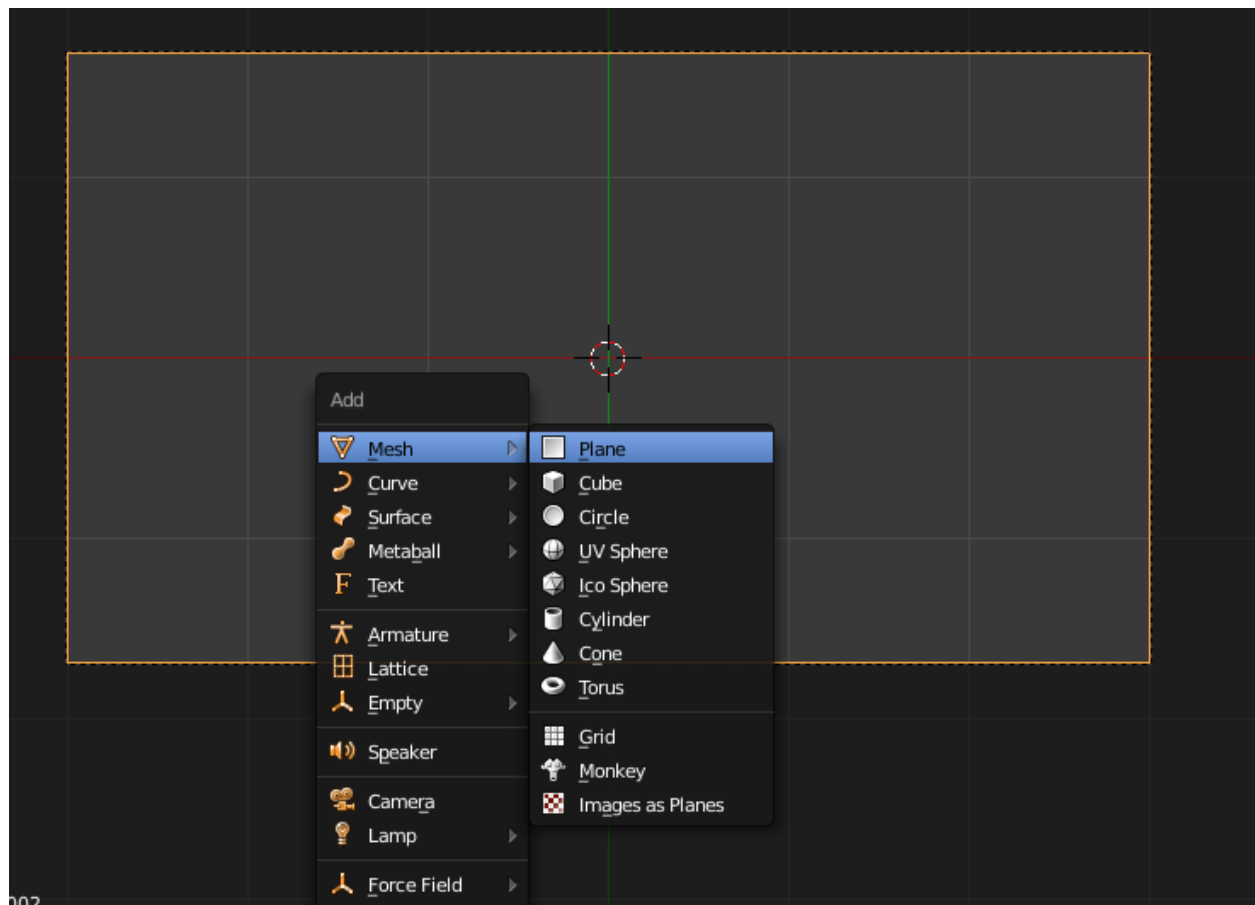4) PRESS 'ALT+R' TO CLEAR THE ROTATION OF THE CAMERA. IT SHOULD BE POINTING STRAIGHT DOWN.

5) GRAB THE BLUE ARROW AND DRAG THE CAMERA UP SO THAT IT IS ABOVE THE GRID.
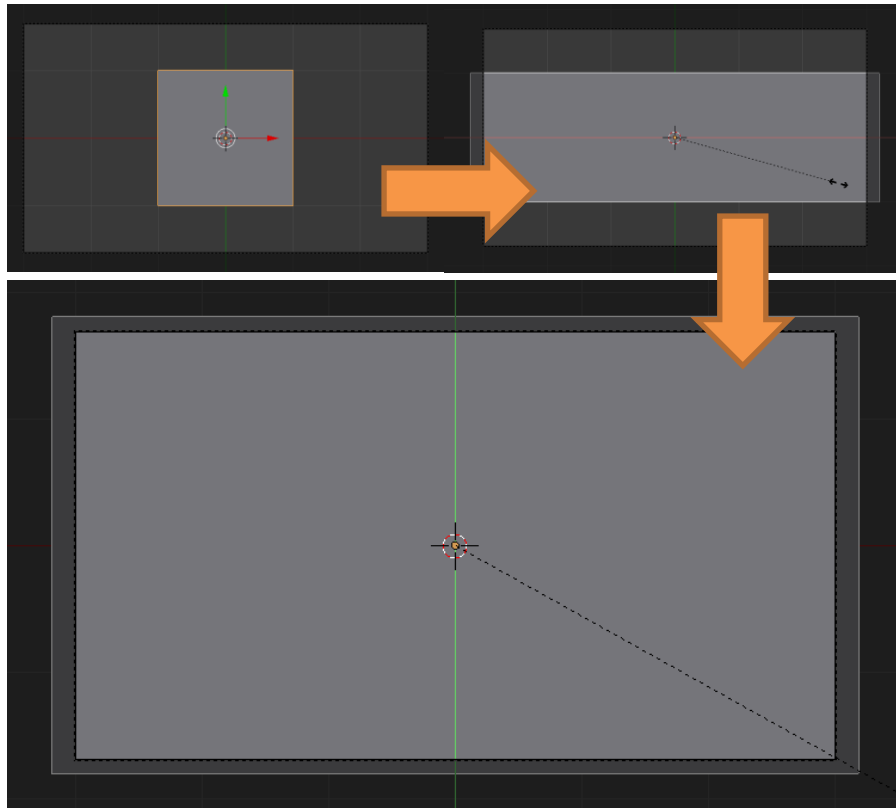
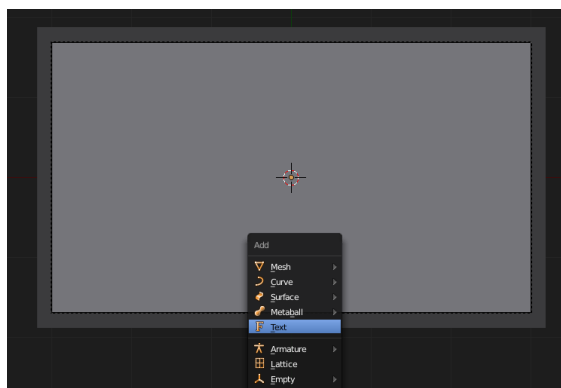6) PRESS ZERO (0) TO GO INTO CAMERA VIEW.

7) IN THE CAMERA TAB, CHANGE THE VIEW TO 'ORTHOGRAPHIC'.

8) PRESS 'SHIFT+A' AND ADD A PLANE.

9) WITH THE PLANE SELECTED, SCALE
IT ALONG THE X-AXIS (S, X) AND
THEN SCALE IT ALONG THE Y-AXIS
(S, Y). MAKE THE PLANE SLIGHTLY
BIGGER THAN THE CAMERA EDGE.

10) DESELECT THE PLANE WITH 'A'.
PRESS 'SHIFT+A' AND ADD TEXT.
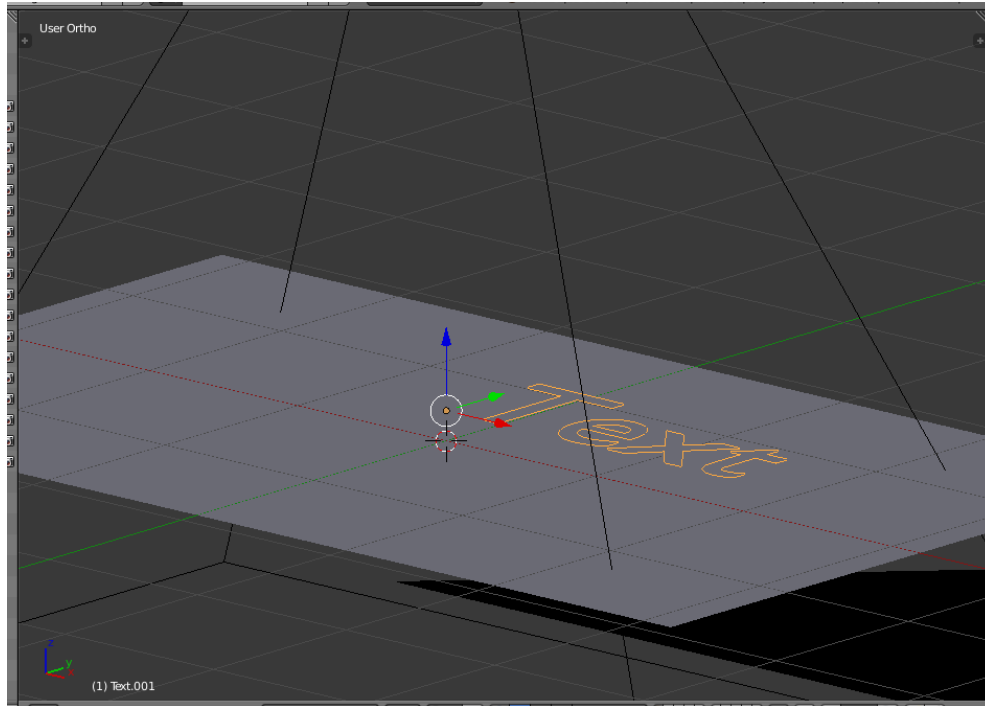
11) HOLD DOWN THE MOUSE WHEEL TO ADJUST THE VIEW ANGLE. GRAB THE BLUE ARROW AND DRAG THE TEXT UPWARDS SLIGHTLY, SO THAT IT IS HOVERING ABOVE THE PLANE.
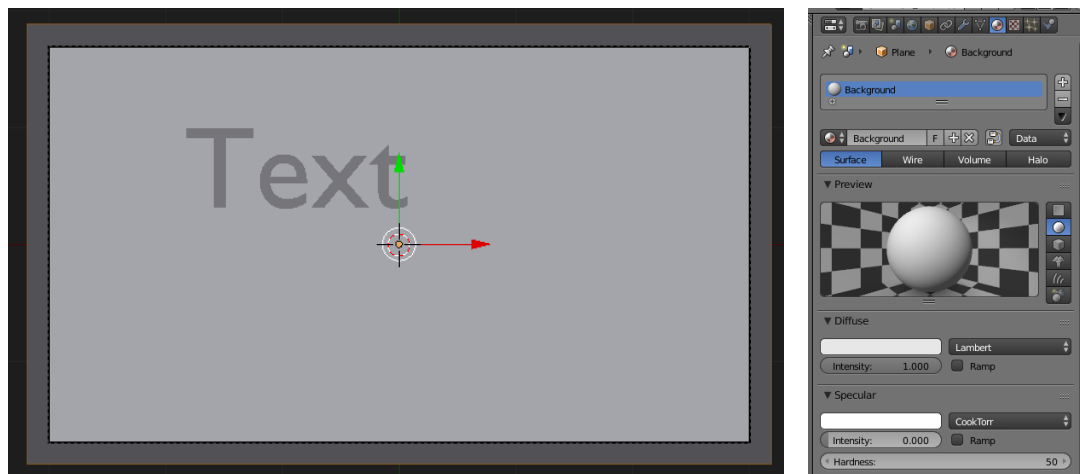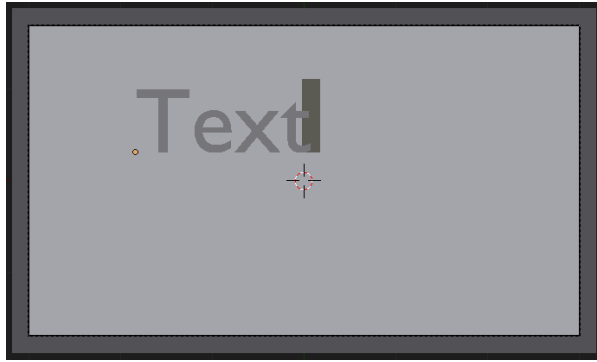

12) PRESS 'ZERO' (0) AND SELECT THE PLANE. APPLY A MATERIAL TO IT. I'VE ADDED A WHITE MATERIAL.
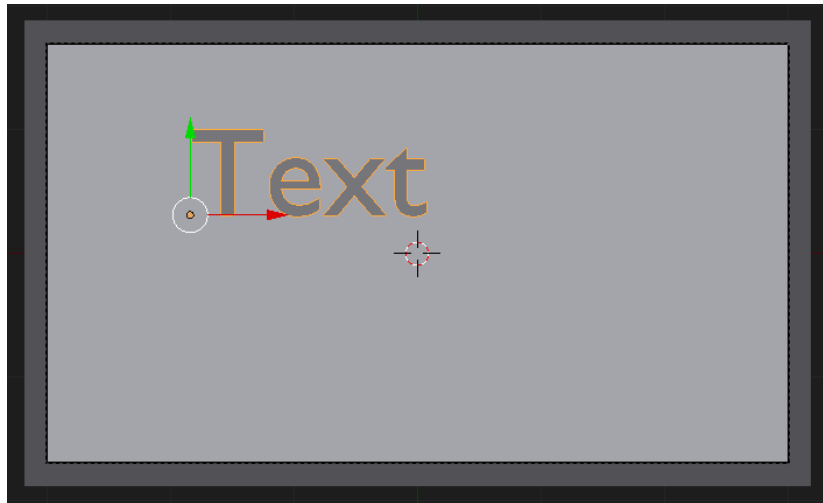
13) MAKE SURE THE TEXT IS
     HIGHLIGHTED. THIS WILL BE THE
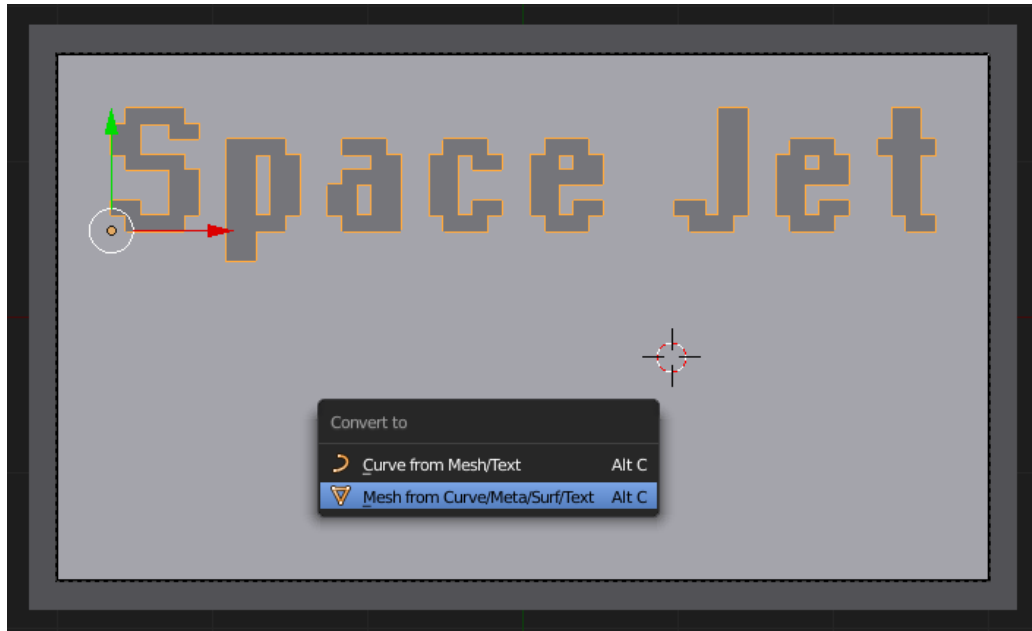   TITLE OF YOUR GAME.
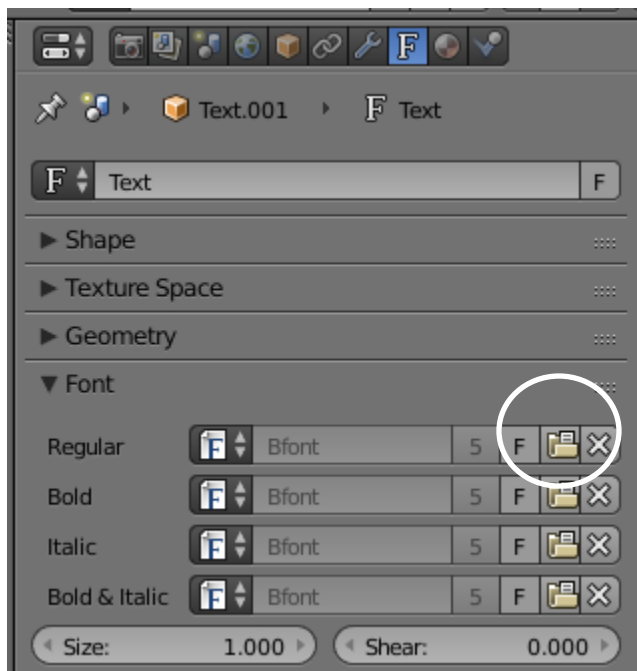
14) NOTE: IN ORDER TO CHANGE THE
     FONT, YOU WOULD SELECT THE
     FONT TAB AND CLICK ON THE
     FOLDER TO FIND THE FONT YOU
     DOWNLOADED FROM DAFONT.COM.
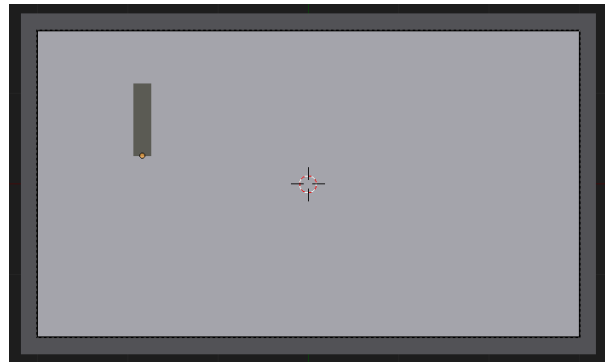
15) PRESS TAB TO GO INTO EDIT MODE. USE THE BACKSPACE BUTTON TO DELETE THE WORD 'TEXT'.

16) TYPE IN THE NAME OF YOUR GAME. PRESS TAB TO RETURN TO OBJECT MODE. IN THIS EXAMPLE I'VE APPLIED A FONT TO THE TEXT.
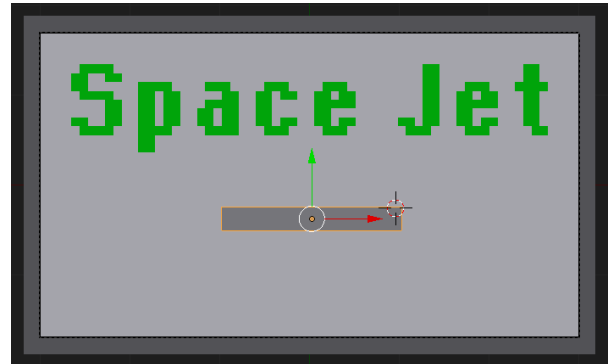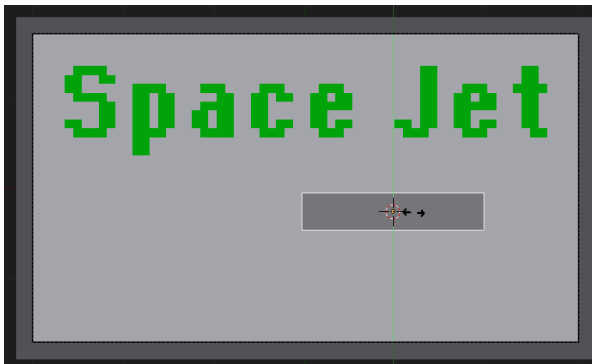
17) SELECT YOUR TEXT. PRESS 'ALT+C' AND SELECT 'MESH FROM CURVE/META/SURF/TEXT'. THIS WILL CONVERT YOUR TEXT TO A MESH.
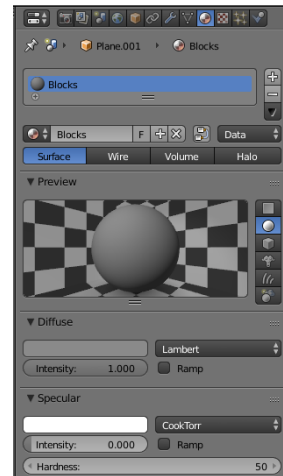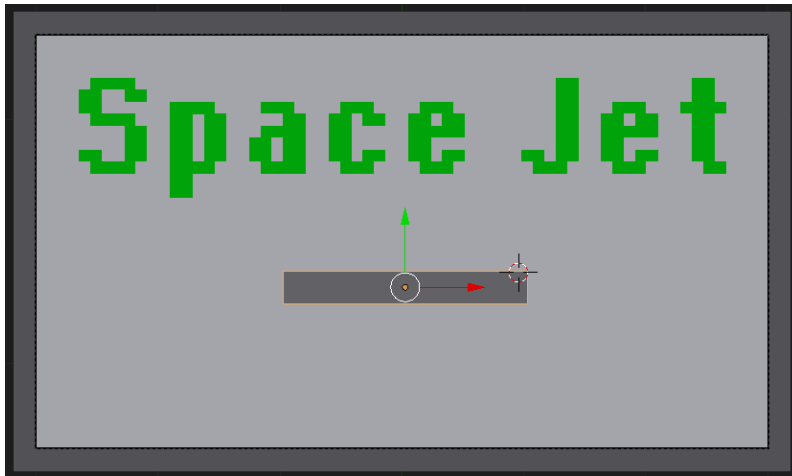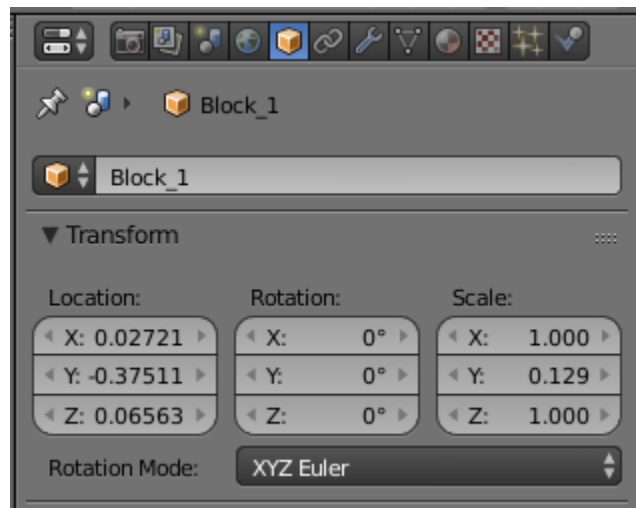

18) APPLY A MATERIAL TO YOUR TEXT.
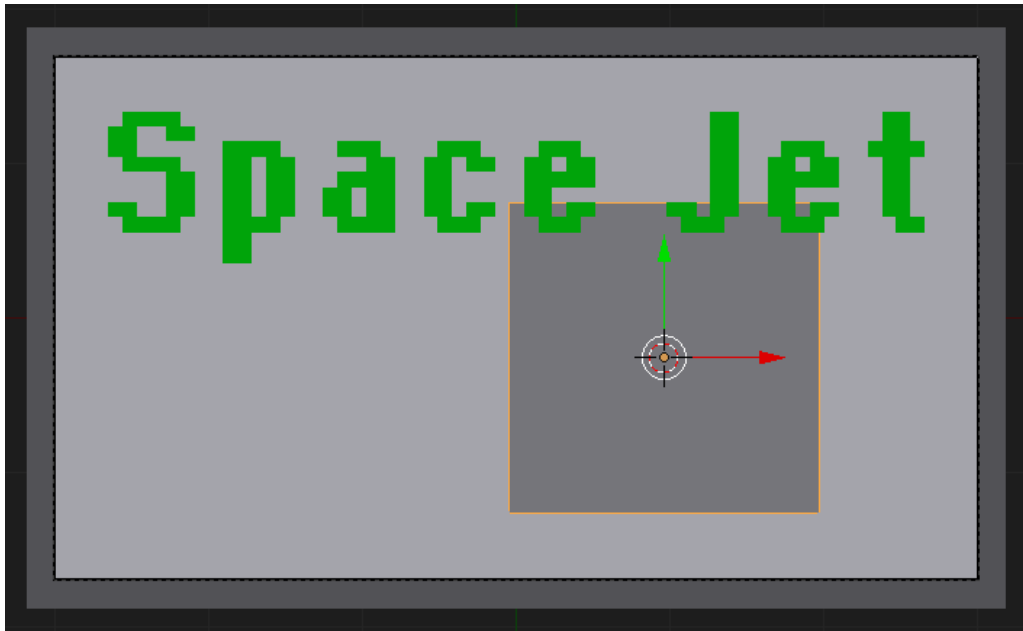
19) DESELECT THE TEXT BY PRESSING
'A'. PRESS SHIFT+A AND ADD A
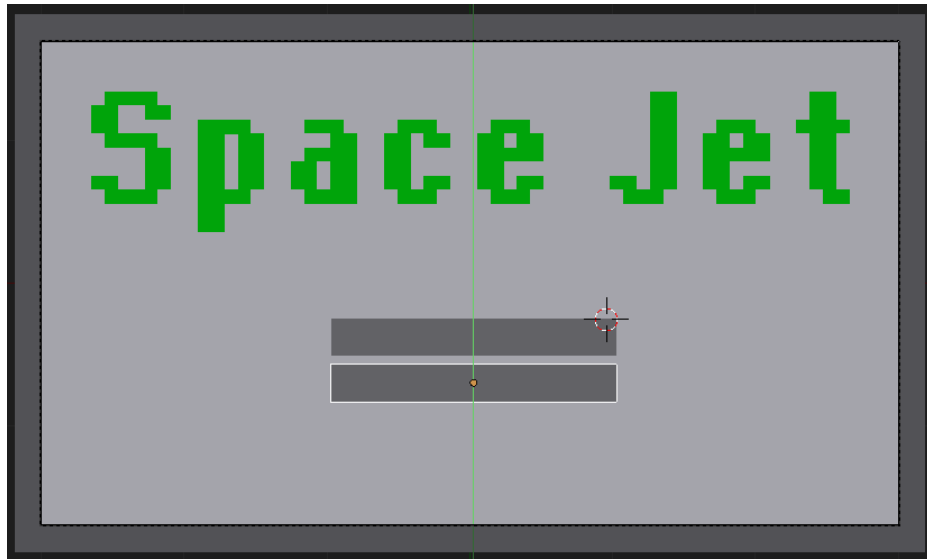PLANE. MAKE SURE THE PLANE IS
NOT TOUCHING YOUR BACKGROUND
PLANE.

20) SCALE THE PLANE ALONG THE Y-
AXIS (S, Y). MOVE THE PLANE TO
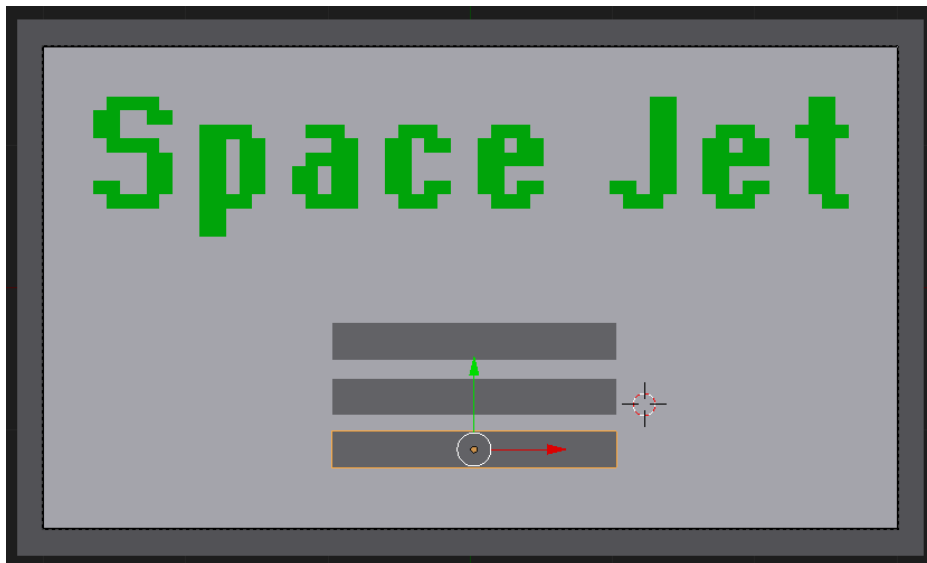THE CENTER OF THE SCREEN (G).

21) APPLY A MATERIAL TO THE PLANE.

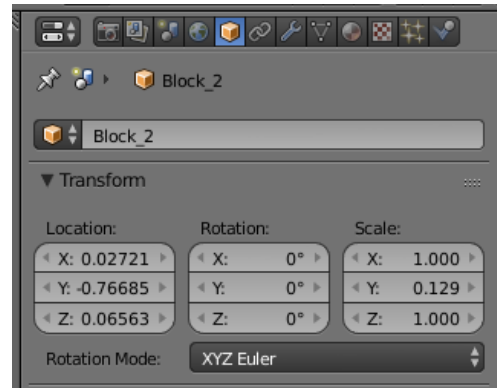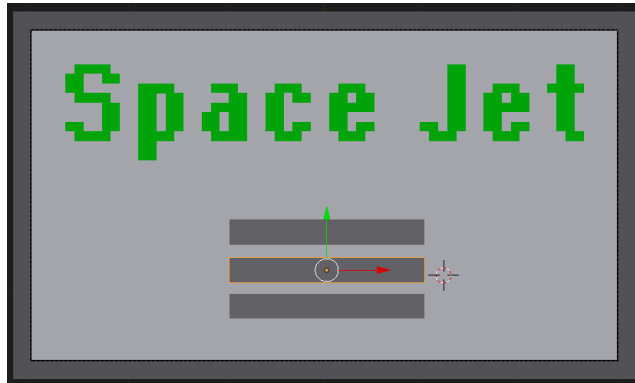**22) IN THE OBJECT TAB, RENAME THE PLANE 'BLOCK_1'.**

23) PRESS 'SHIFT+D' TO DUPLICATE THE PLANE. PRESS 'Y' TO MOVE THE NEW PLANE BENEATH THE FIRST ONE.
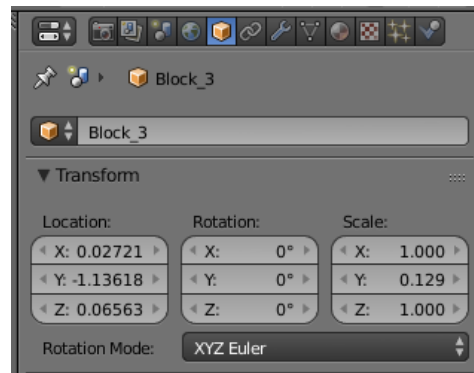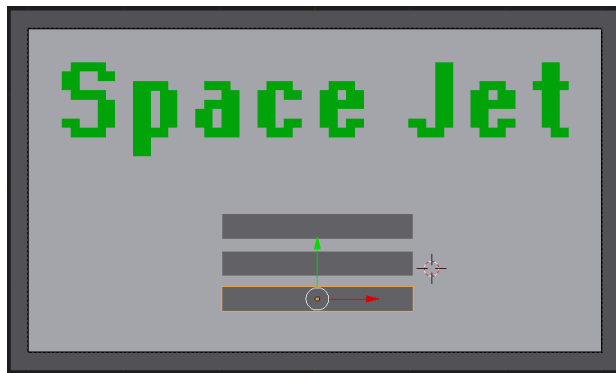

24) PRESS 'SHIFT+D' AGAIN TO DUPLICATE THE PLANE. MOVE THIS ONE BENEATH THE SECOND PLANE (Y).
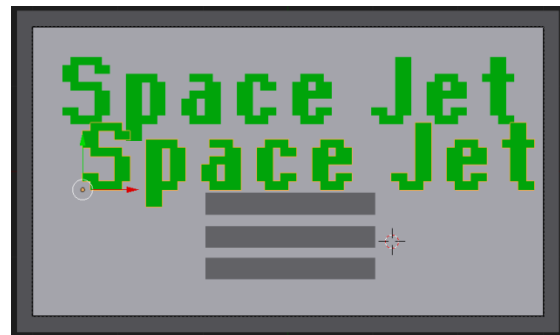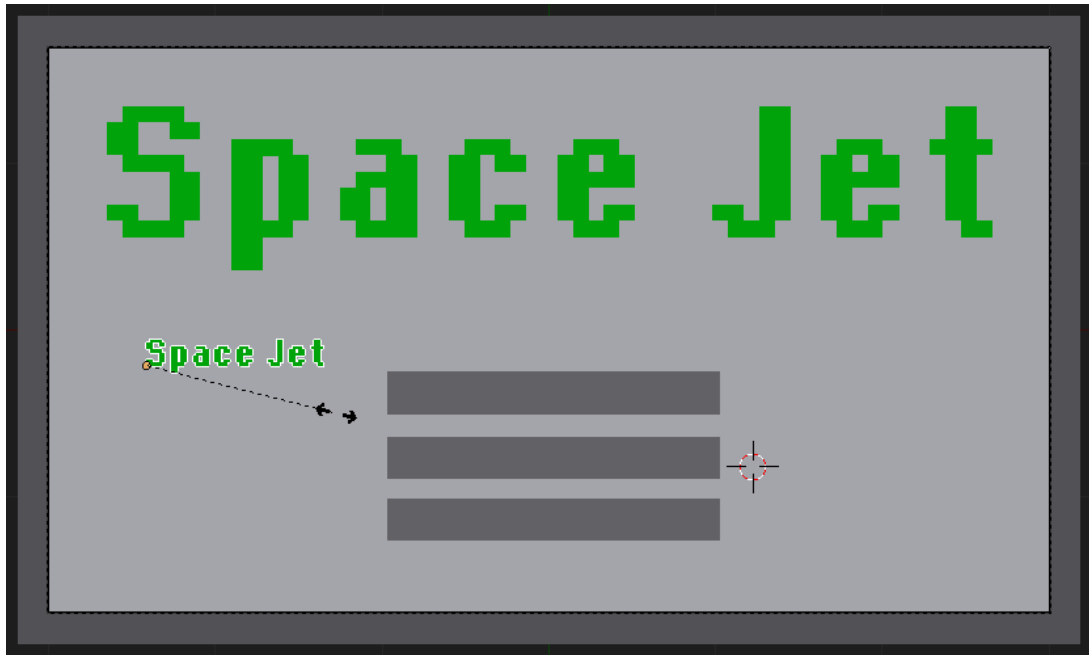
25) SELECT THE SECOND PLANE.
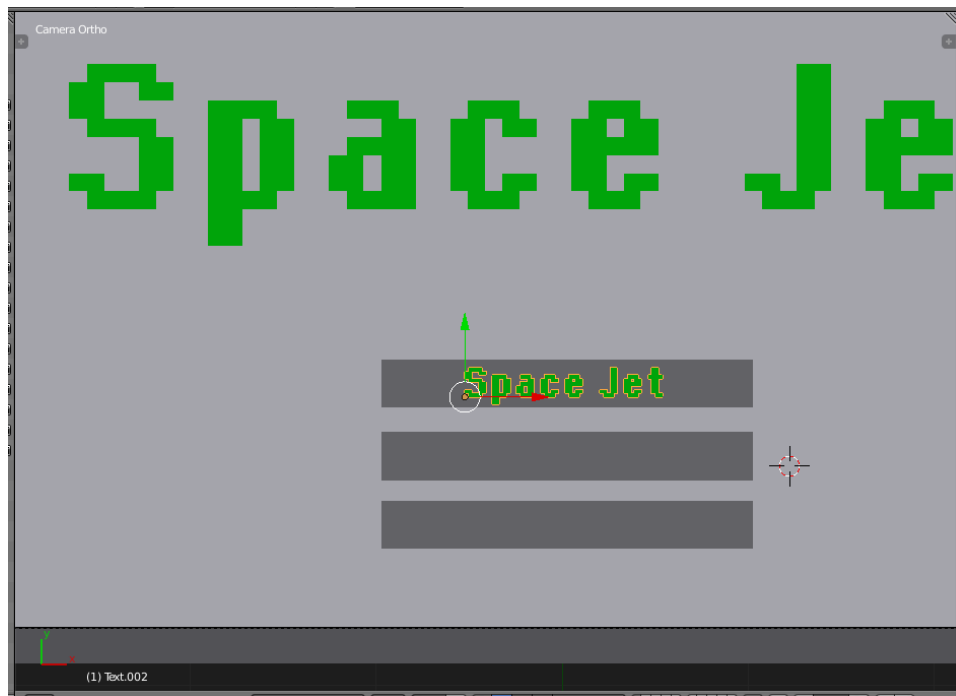RENAME IT 'BLOCK_2' IN THE
OBJECT TAB.

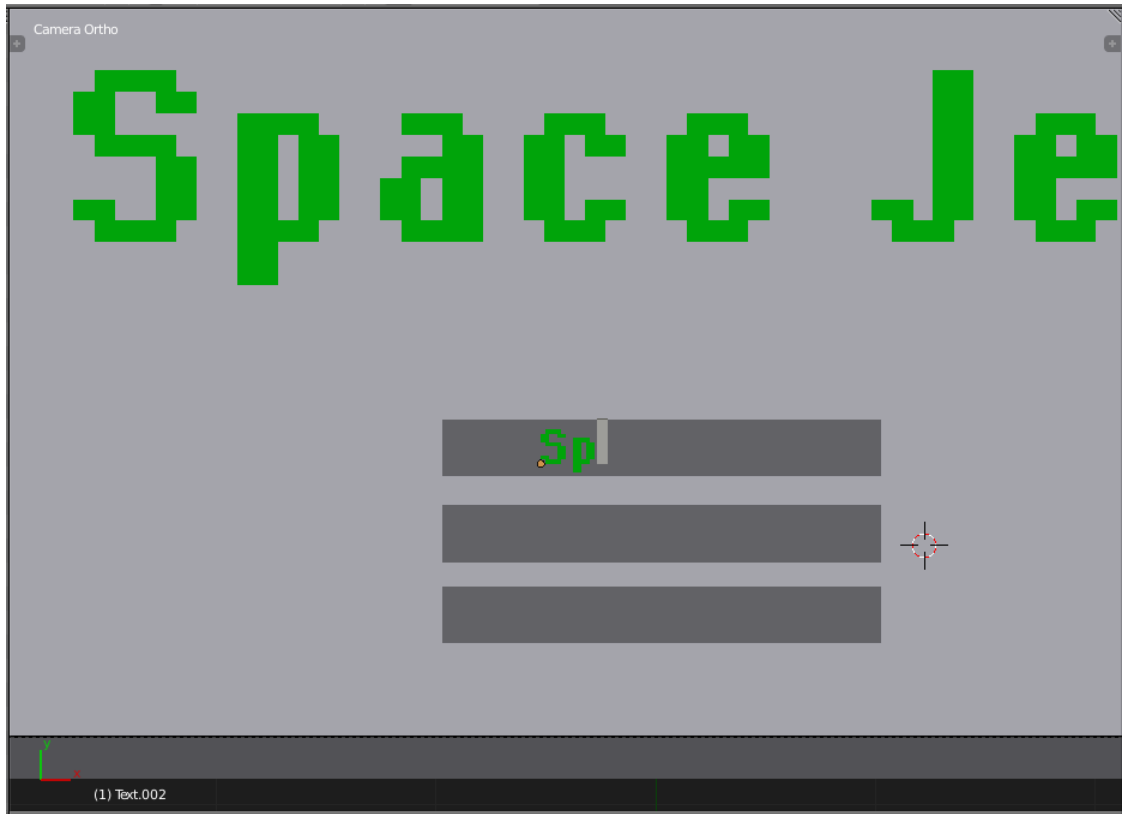26) REPEAT WITH BLOCK 3: SELECT
IT, AND NAME IT 'BLOCK_3'.
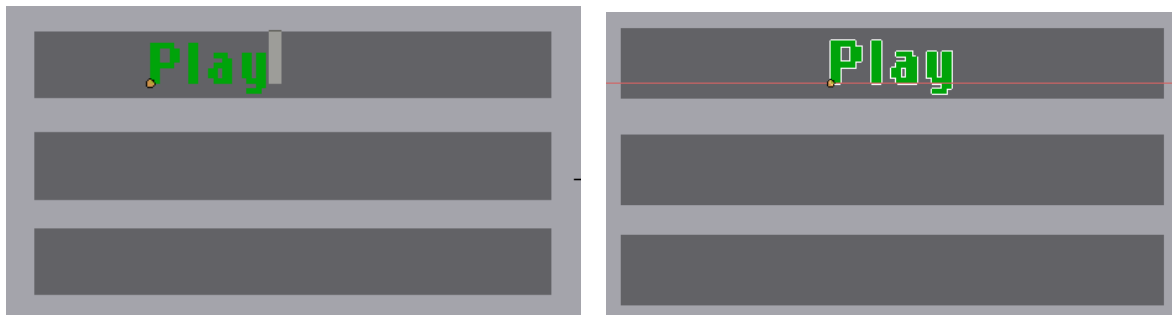

27) SELECT YOUR TITLE TEXT.
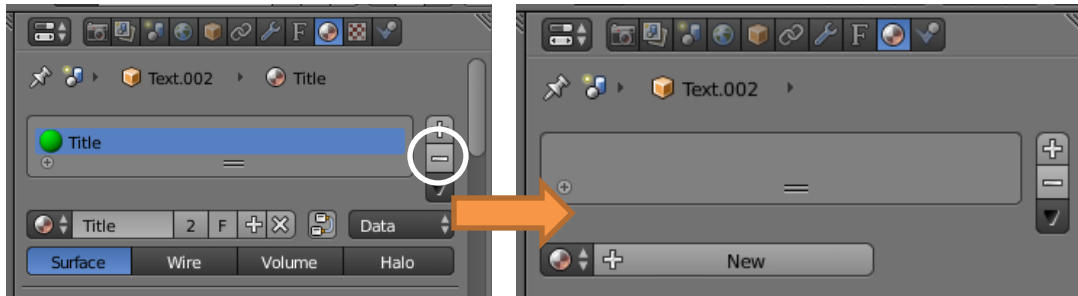DUPLICATE IT WITH 'SHIFT+D'.

28) SCALE THE TEXT DOWN WITH 'S'.

29) PRESS 'G' TO MOVE THE TEXT
OVER THE FIRST BLOCK.
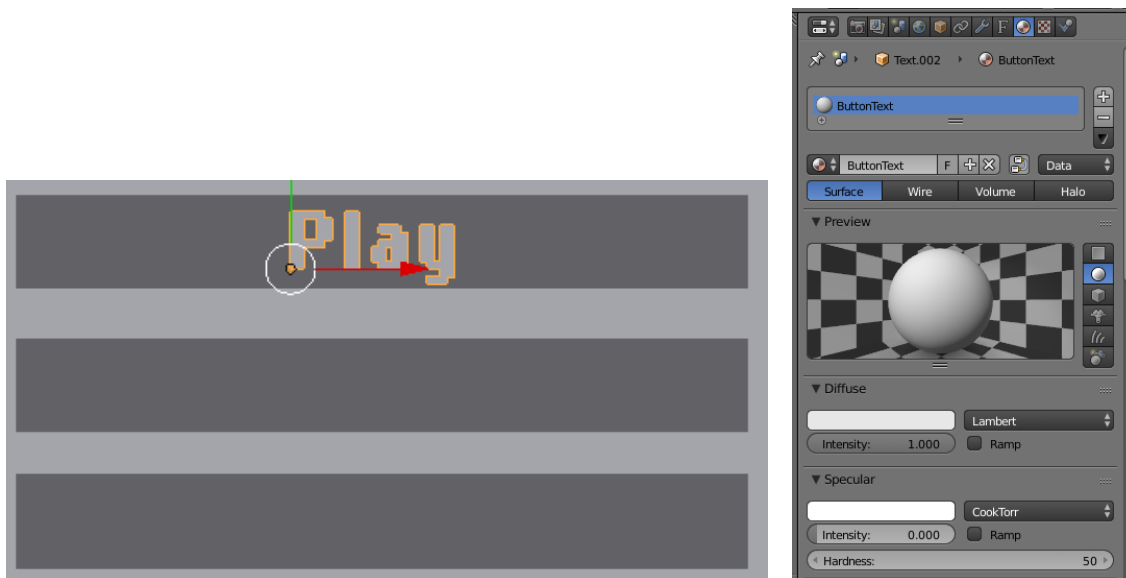
Camera Ortho

(1) Text.002

30) PRESS TAB TO GO INTO EDIT
MODE. DELETE THE LETTERS OF THE
TEXT (BACKSPACE).

31) TYPE IN THE WORD 'PLAY' (YOU
COULD ALSO TYPE 'START' OR
'BEGIN' INSTEAD). PRESS TAB TO
GO INTO OBJECT MODE. PRESS 'G'
TO MOVE THE TEXT TO THE CENTER
OF THE BOX.

32) GO INTO THE MATERIAL TAB FOR THE TEXT. REMOVE THE MATERIAL BY PRESSING THE SUBTRACT BUTTON.

33) ADD A NEW MATERIAL TO THE TEXT.

34) PRESS SHIFT+D TO DUPLICATE
THE TEXT. PRESS 'Y' TO MOVE THE
NEW TEXT TO THE SECOND BOX.

35) PRESS TAB TO GO INTO EDIT
MODE. DELETE THE LETTERS
(BACKSPACE) AND TYPE IN 'HOW TO
PLAY' (YOU CAN TYPE IN OTHER
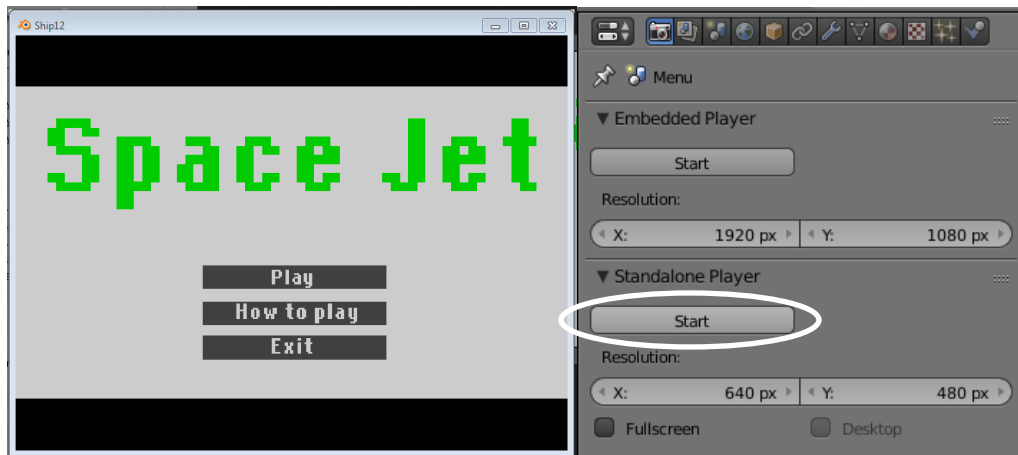THINGS, LIKE 'INSTRUCTIONS' OR
'CONTROLS'.)

36) USE SHIFT+D TO DUPLICATE THE TEXT; MOVE IT DOWN TO THE THIRD BOX.
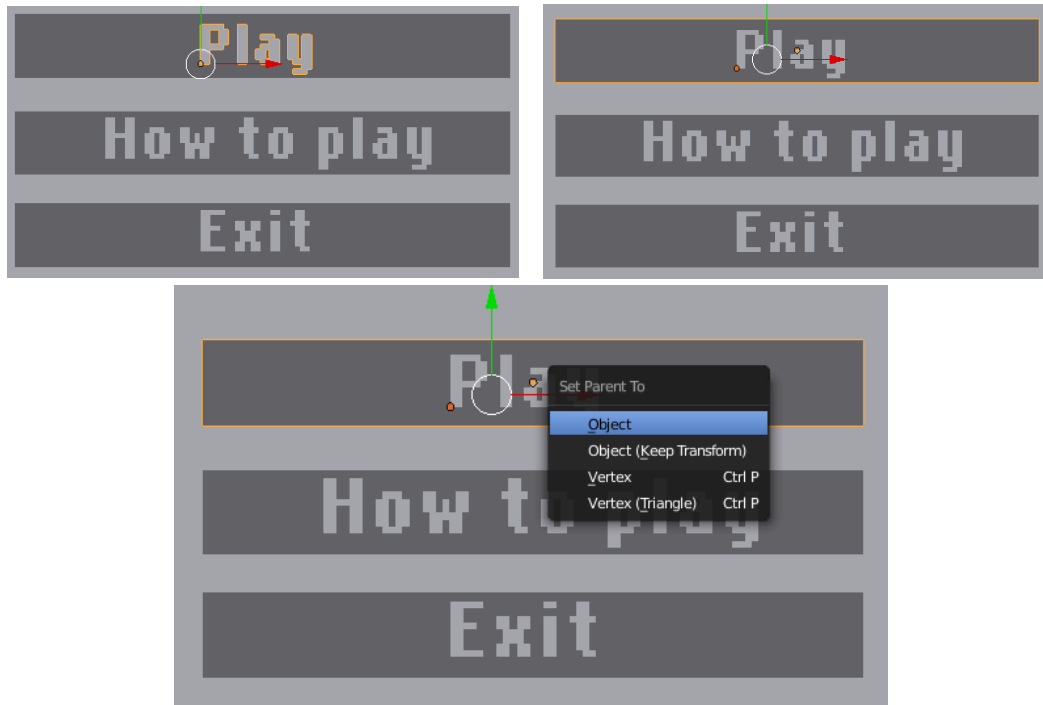

37) PRESS TAB TO ENTER EDIT MODE. DELETE THE LETTERS (BACKSPACE) AND TYPE IN 'EXIT' (YOU COULD ALSO TYPE IN 'QUIT' OR 'END').
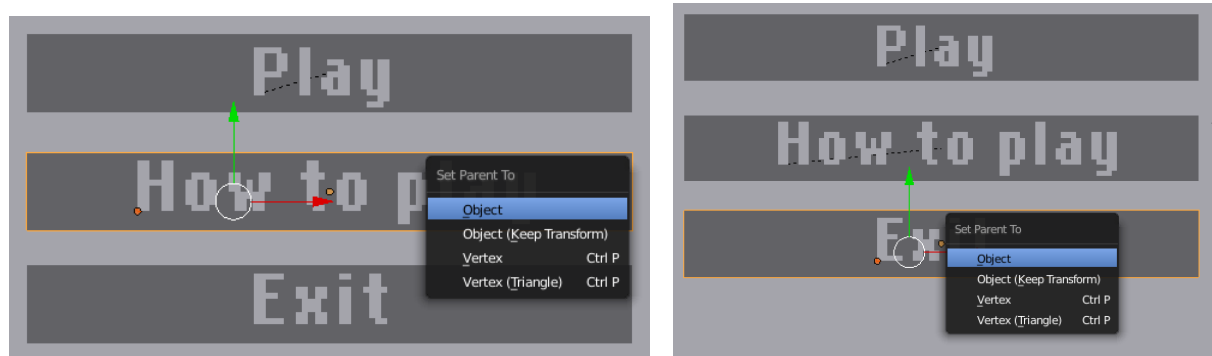
38) SELECT EACH TEXT OBJECT ONE
BY ONE AND PRESS 'ALT+C'.
SELECT 'MESH FROM
CURVE/META/SURF' FOR EACH ONE.

39) NOW IF YOU PLAY YOUR GAME BY
PRESSING START, YOU WILL SEE
WHAT YOUR MENU SCREEN LOOKS
LIKE.

40) NEXT, RIGHT CLICK THE TEXT
     'PLAY'. THEN, HOLD SHIFT AND
     RIGHT CLICK THE BLOCK_1. PRESS
   CTRL+P AND THEN SELECT OBJECT
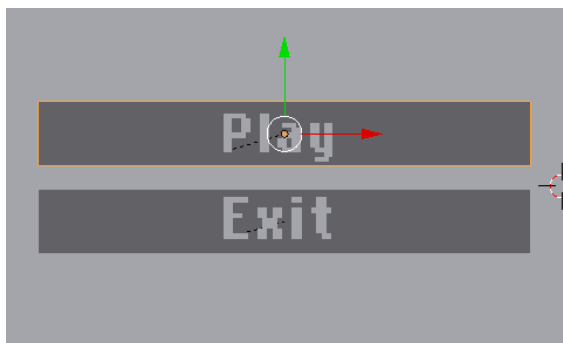   TO PARENT THE TEXT TO THE BOX.

41) REPEAT THESE STEPS WITH THE
    NEXT TWO BOXES: SELECT THE
    TEXT, HOLD SHIFT, SELECT THE
    BOX, AND PRESS CTRL+P TO
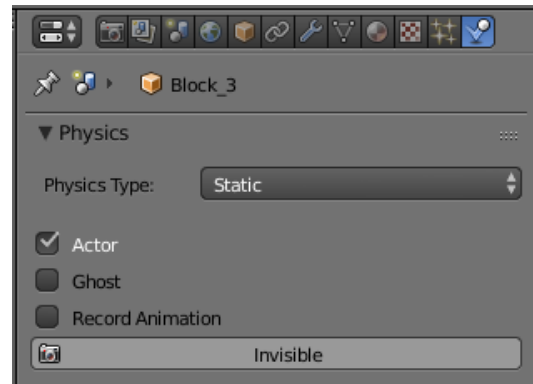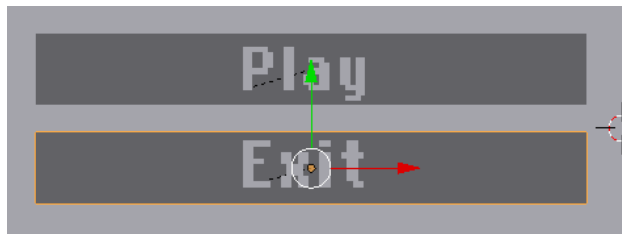   PARENT TO THE OBJECT.

42) BECAUSE THIS TUTORIAL IS
    GETTING A LITTLE LONG, GO AHEAD
    AND DELETE THE 'HOW TO PLAY'
    BUTTON. WE'LL SET UP JUST THE
    'PLAY' AND 'EXIT' BUTTONS FOR
    NOW. USE 'G' TO MOVE THE 'PLAY'
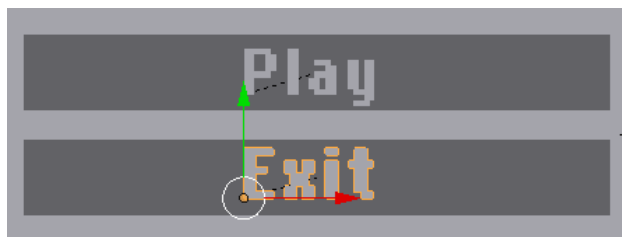   AND 'EXIT' BLOCKS CLOSER
    TOGETHER.
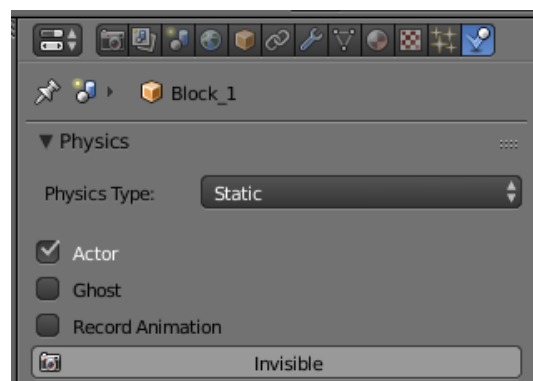
43) SELECT THE BOX BEHIND PLAY. IN
    THE PHYSICS TAB, SET ITS
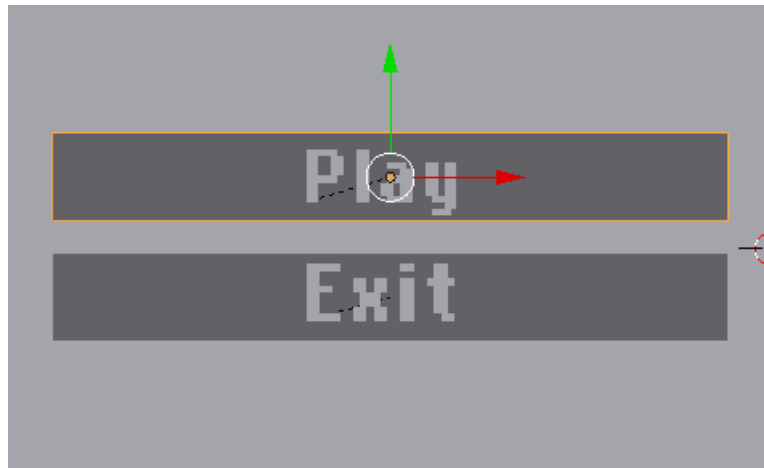   PHYSICS TYPE TO STATIC, AND
    CHECK 'ACTOR'.

44) DO THE SAME THING FOR THE EXIT BOX: SELECT THE BOX, AND SELECT 'STATIC' AS ITS PHYSICS TYPE. CHECK 'ACTOR'.
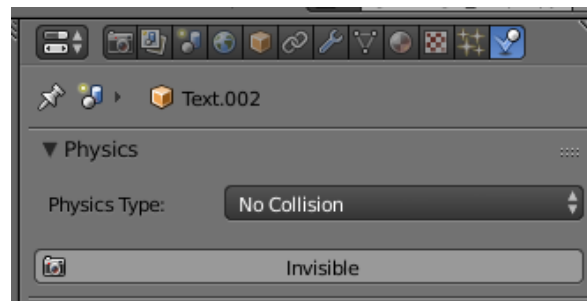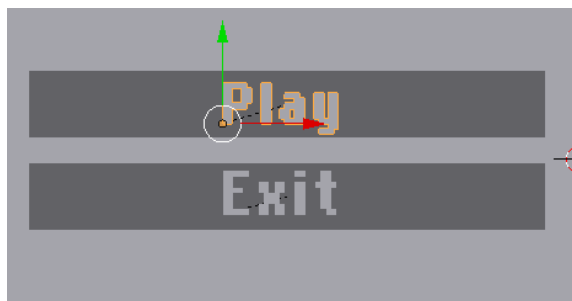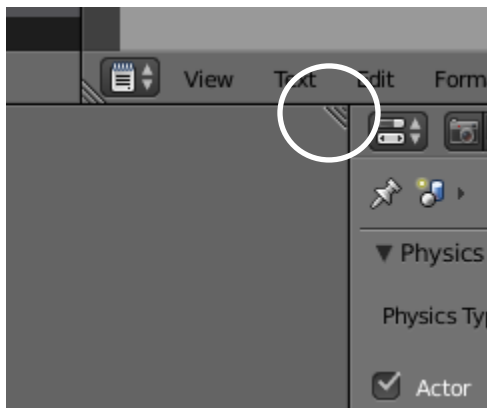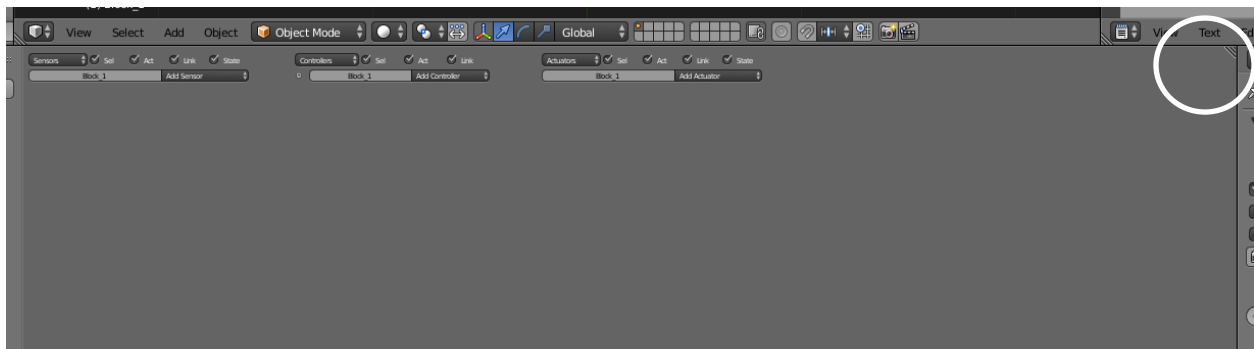

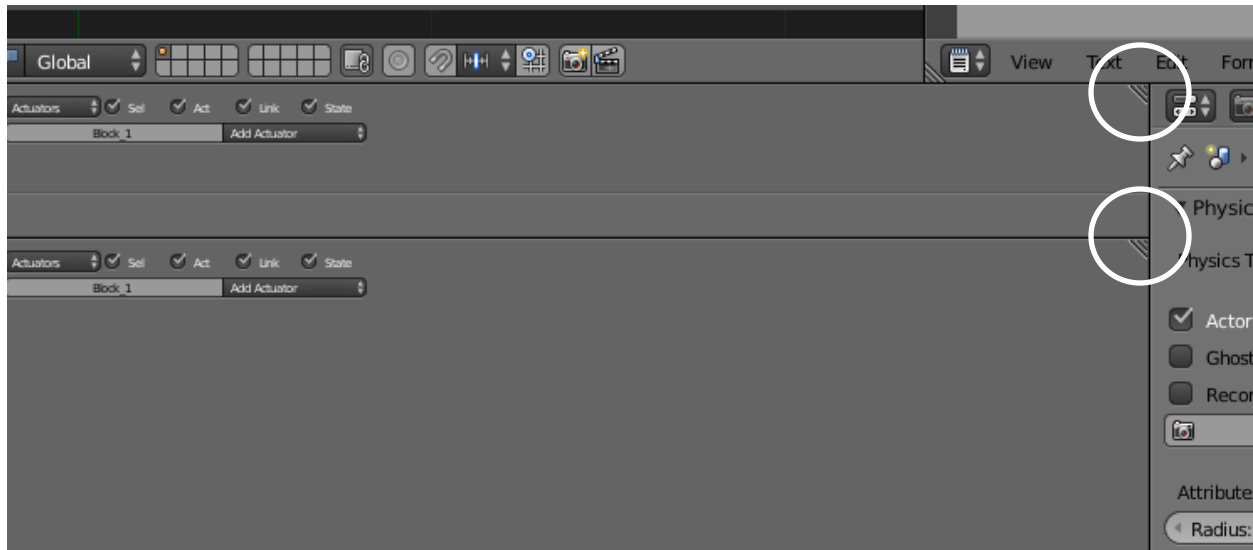**45) SELECT THE WORD 'PLAY'. SET ITS PHYSICS TYPE TO 'NO COLLISION'.**

46) DO THE SAME FOR THE WORD 'EXIT': SELECT IT, AND CHANGE ITS PHYSICS TO 'NO COLLISION'.
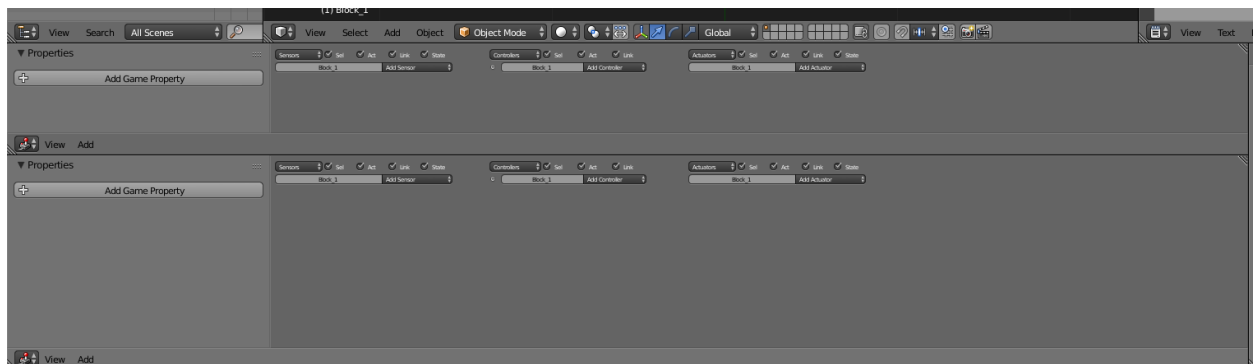
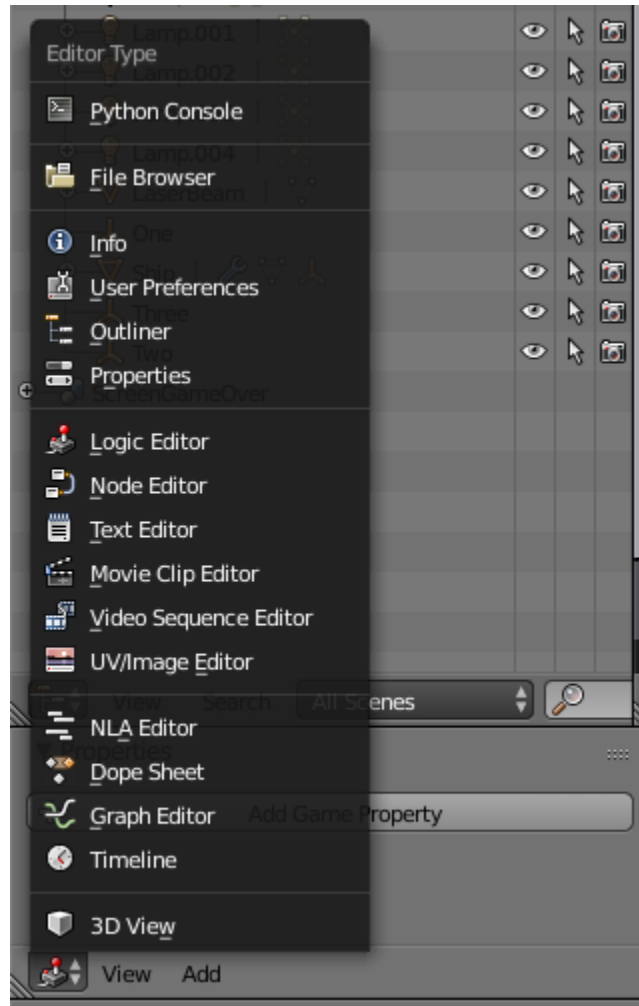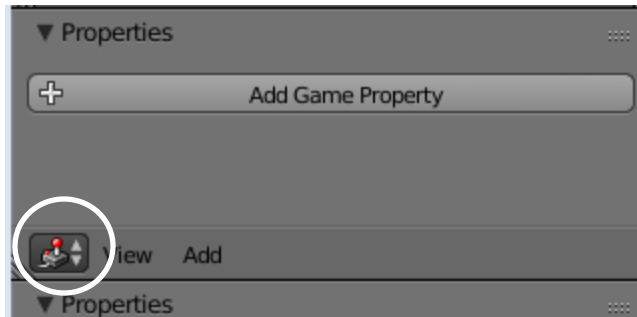**47) SELECT THE PLAY BOX AGAIN.**

48) THE NEXT STEP INVOLVES A HANDY BLENDER TRICK: FIND THE DASH MARK IN THE CORNER OF THE ACTUATOR BOX. IT IS CIRCLED IN THE PICTURE.
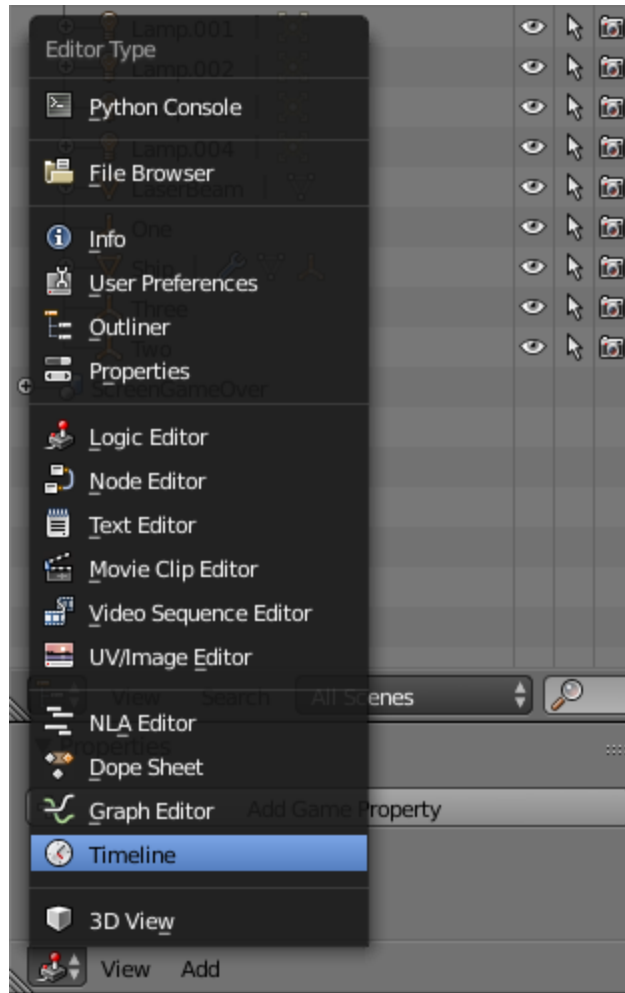
49) HOVER OVER THIS CORNER UNTIL YOU SEE A PLUS SIGN. CLICK AND DRAG; YOUR BLOCK SHOULD SPLIT IN TWO.
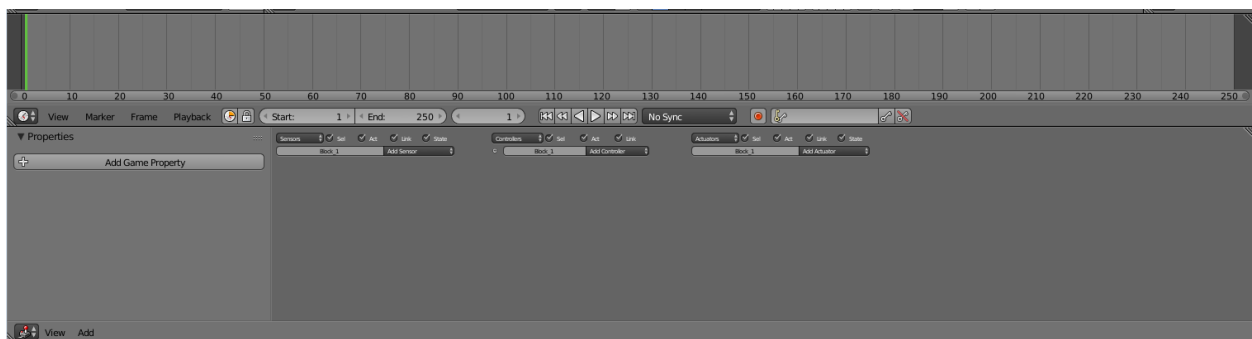

50) YOU SHOULD HAVE TWO NEW BLOCKS; IN THIS CASE, I HAVE TWO LOGIC EDITORS. I WILL NOW CHANGE ONE TO A TIMELINE.
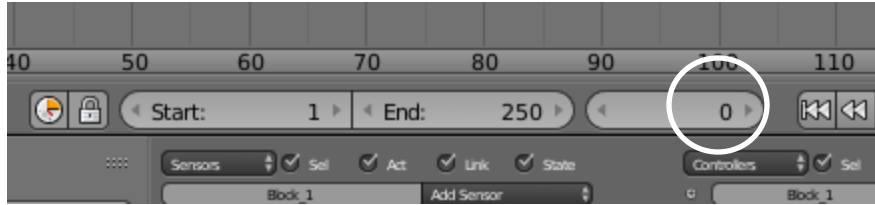
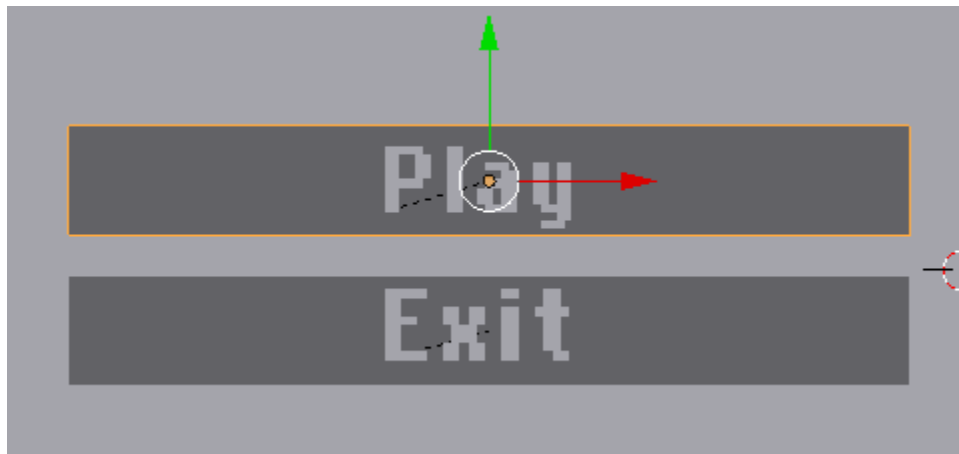**51)** FIND YOUR LOGIC EDITOR TAB (CIRCLED). CLICK ON IT.
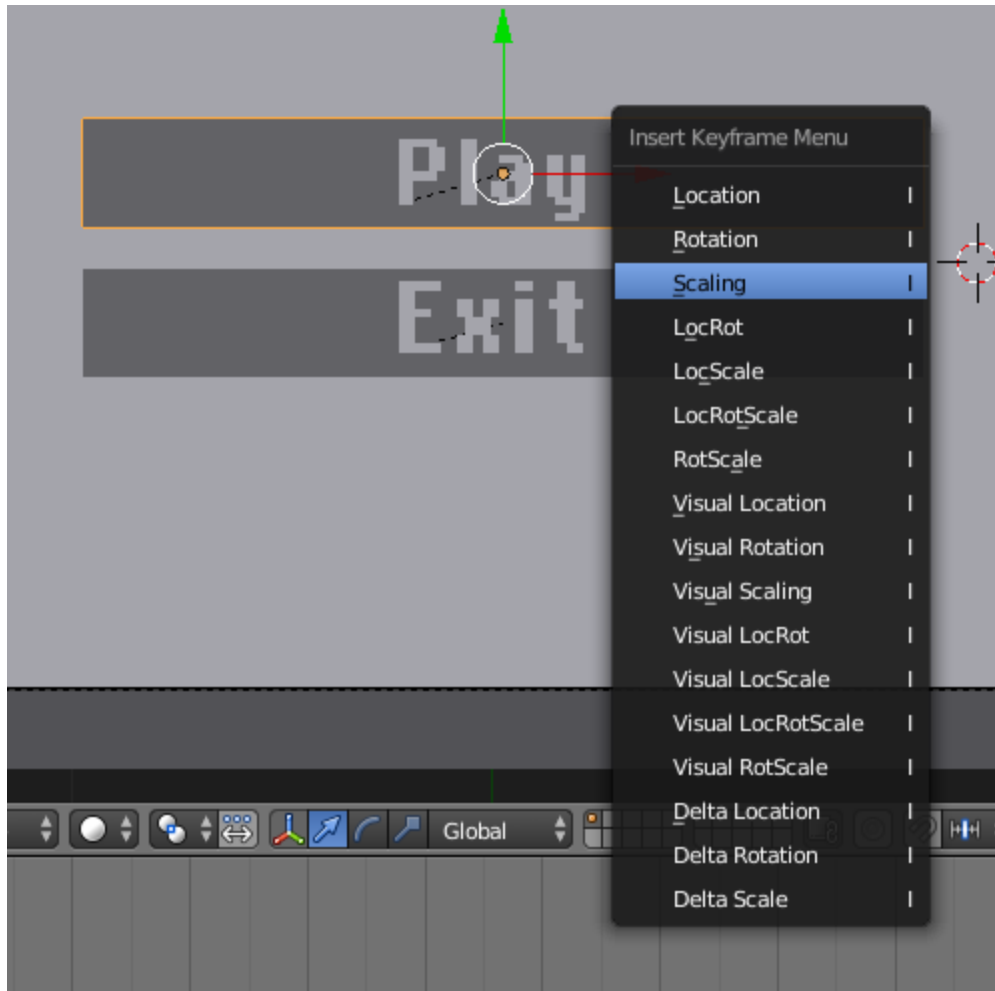
52) CLICK ON 'TIMELINE'.

53) YOU SHOULD NOW SEE A TIMELINE AND YOUR LOGIC EDITOR.
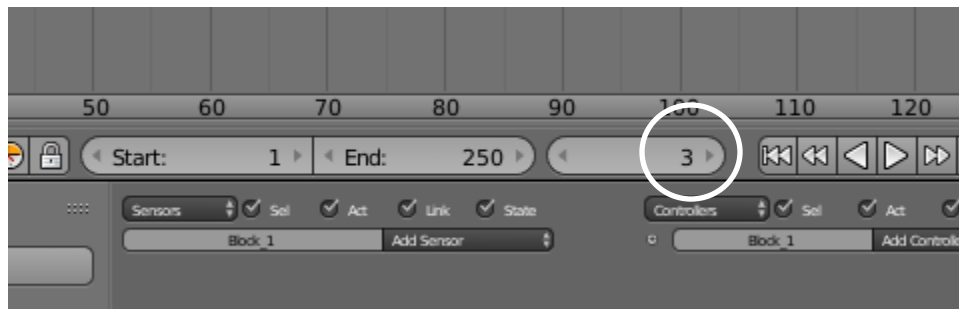
54) LET'S ADD AN ANIMATION THAT
     WILL PLAY WHEN WE CLICK ON THE
     'PLAY' BUTTON. CHANGE THE
     CURRENT FRAME TO 'ZERO'
     (CIRCLED).

55) MAKE SURE YOU HAVE THE BLOCK
     BEHIND 'PLAY' SELECTED.

56) WITH THE BLOCK SELECTED, PRESS 'I' TO ADD A KEYFRAME. SELECT 'SCALING' FROM THE LIST.
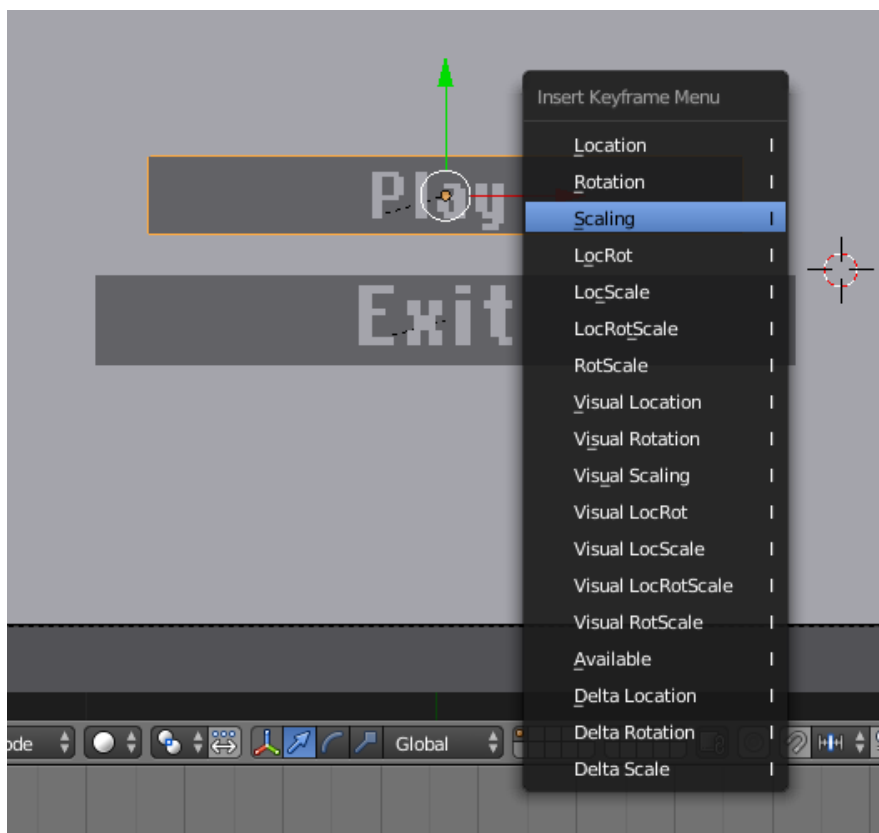
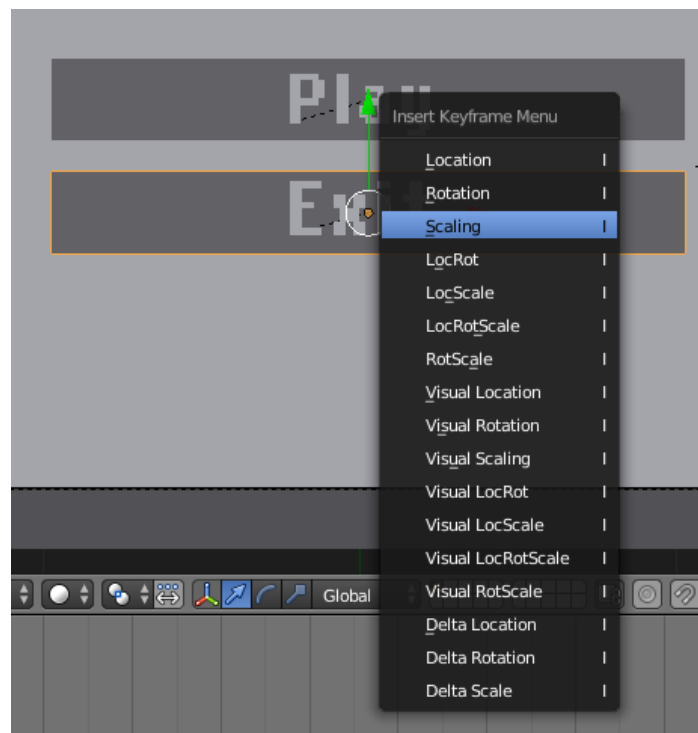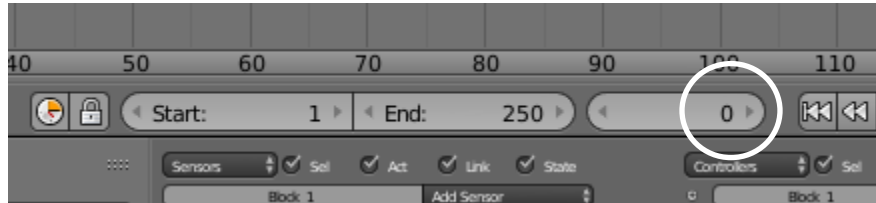

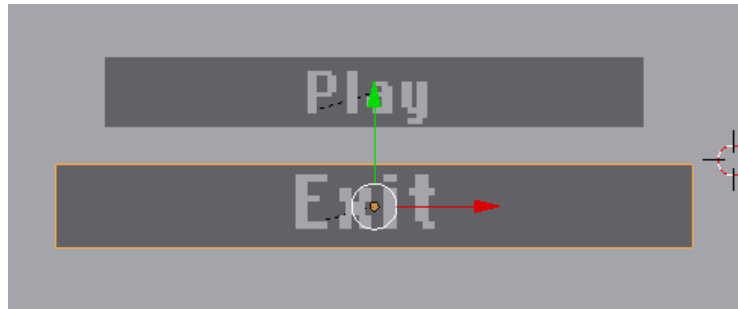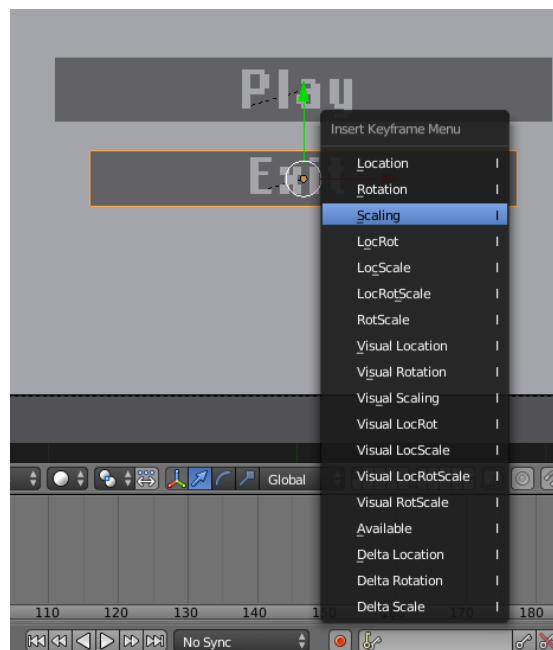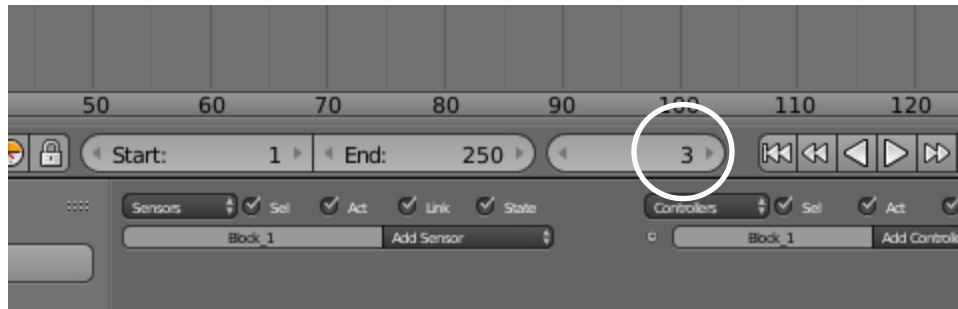**57)** NEXT, CHANGE YOUR CURRENT FRAME TO '3' (CIRCLED).

58) WITH THE BOX STILL SELECTED,
    PRESS 'S' AND SCALE IT DOWN
   SLIGHTLY.

59) PRESS 'I' AND THEN SELECT
   SCALING TO SET ANOTHER
    KEYFRAME.

60) REPEAT THIS PROCESS WITH THE EXIT BUTTON. SELECT THE BOX BEHIND 'EXIT'. MAKE SURE YOUR CURRENT FRAME IN THE TIMELINE IS SET TO '0'. PRESS 'I' AND THEN SELECT 'SCALING'.

Insert Keyframe Menu

Location
Rotation
Scaling
LocRot
LocScale
LocRotScale
RotScale
Visual Location
Visual Rotation
Visual Scaling
Visual LocRot
Visual LocScale
Visual LocRotScale
Visual RotScale
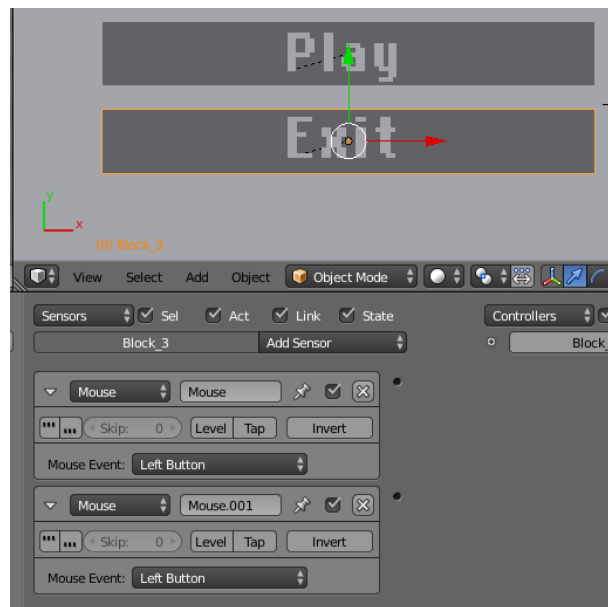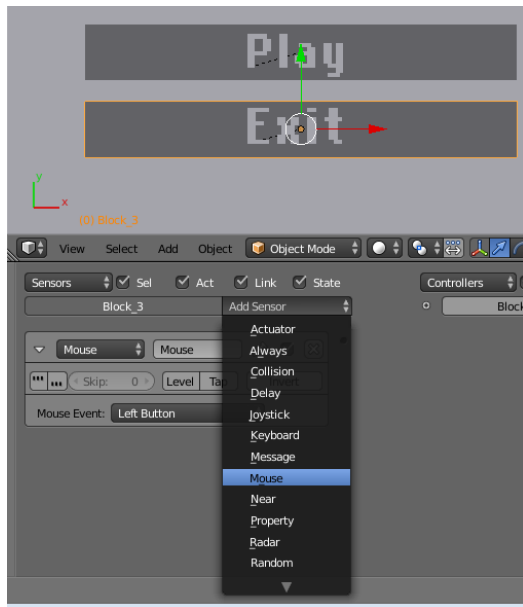Available
Delta Location
Delta Rotation
Delta Scale

61) CHANGE YOUR CURRENT FRAME TO '3'. WITH YOUR BLOCK STILL SELECTED, PRESS 'S' AND SCALE THE BLOCK DOWN SLIGHTLY. PRESS 'I' AND SELECT 'SCALING'.
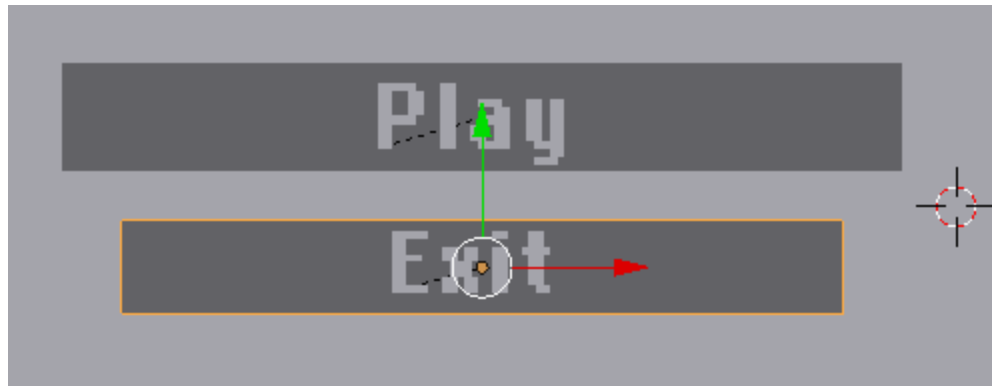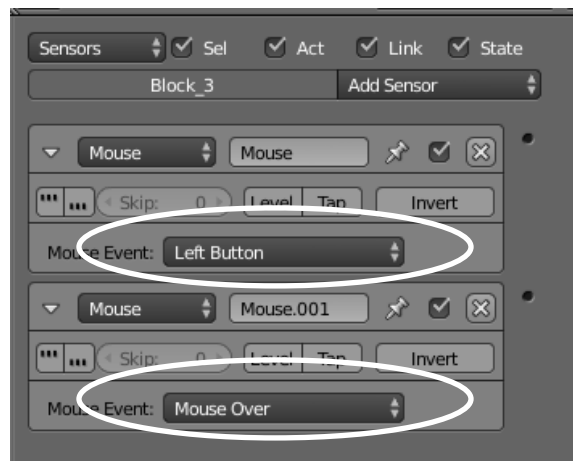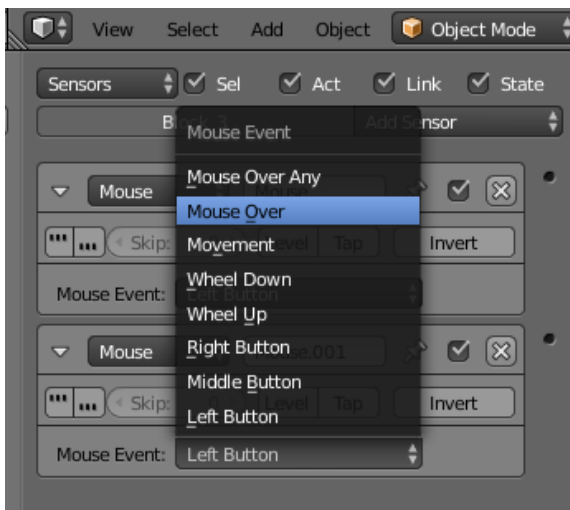
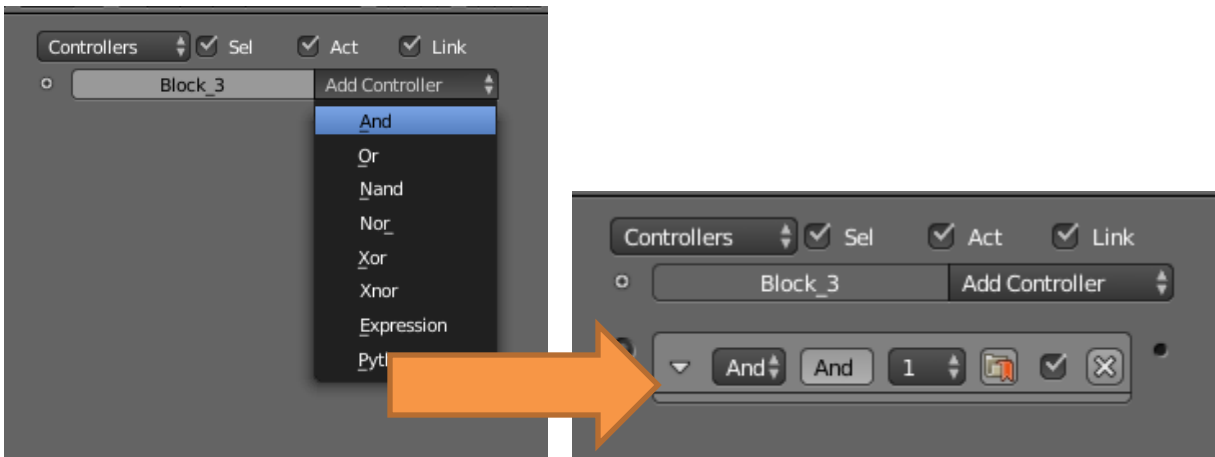**62) ALMOST DONE! LET'S ADD SOME FUNCTIONALITY TO OUR BUTTONS. KEEP THE 'EXIT' BLOCK SELECTED.**
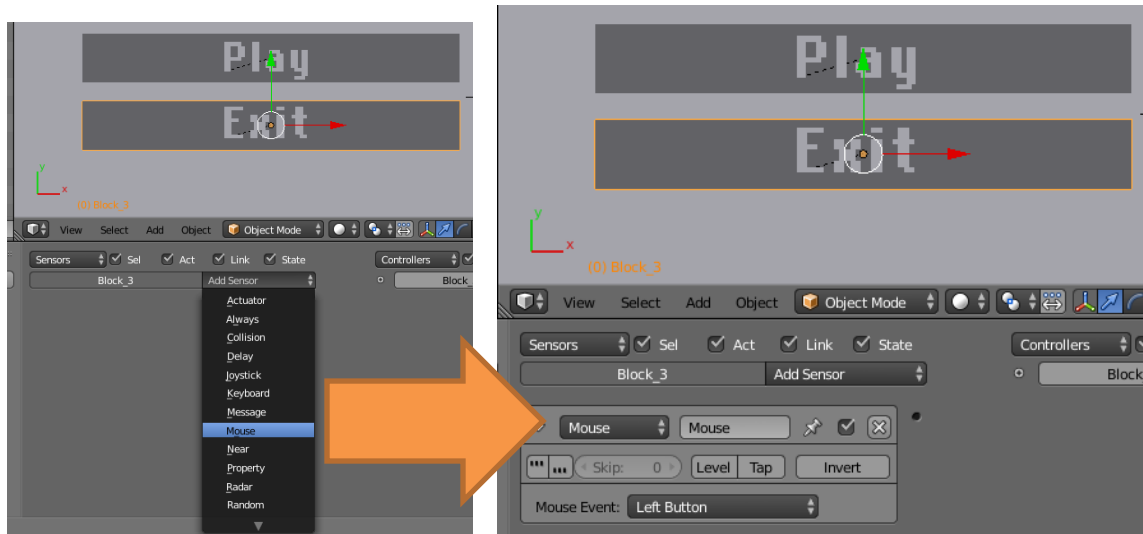
63) IN THE LOGIC EDITOR FOR THE EXIT BOX, ADD A 'MOUSE' SENSOR.
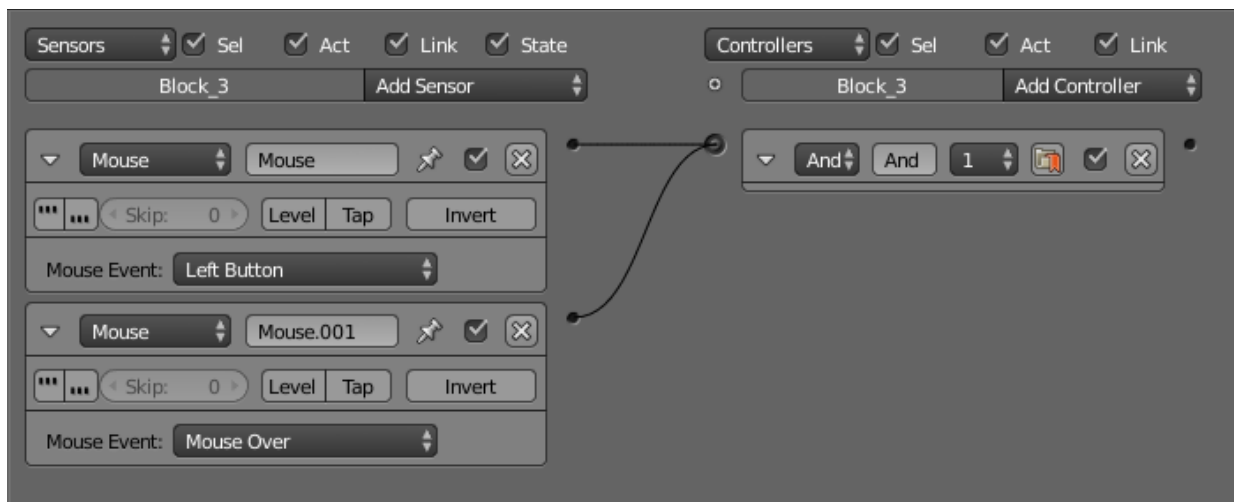
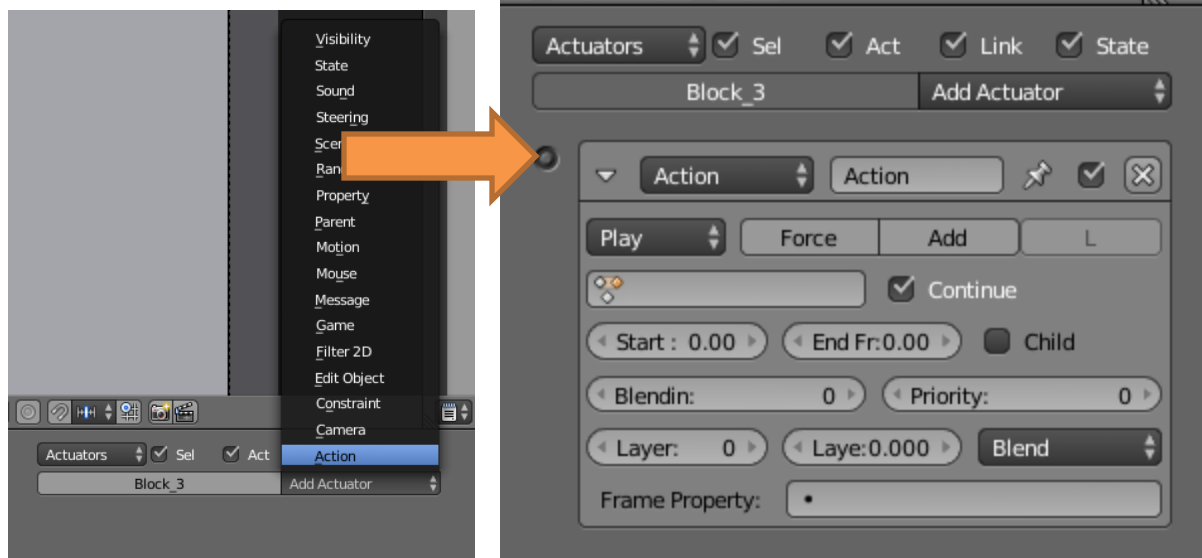# 64) Add another mouse sensor.

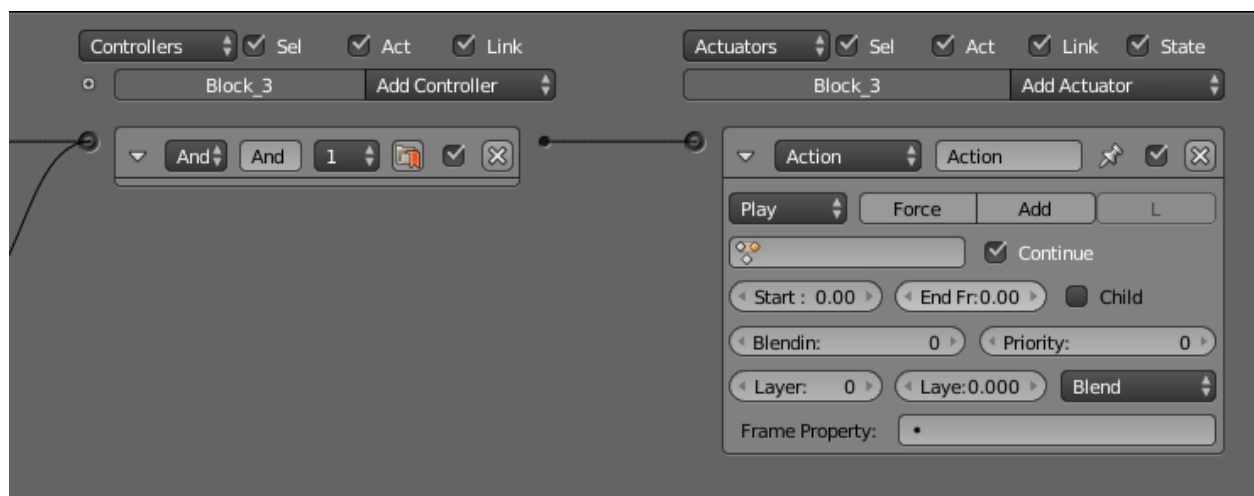# 65) Change the mouse event to 'Mouse Over'. You should now have two sensors that say 'Left Button' and 'Mouse Over'.
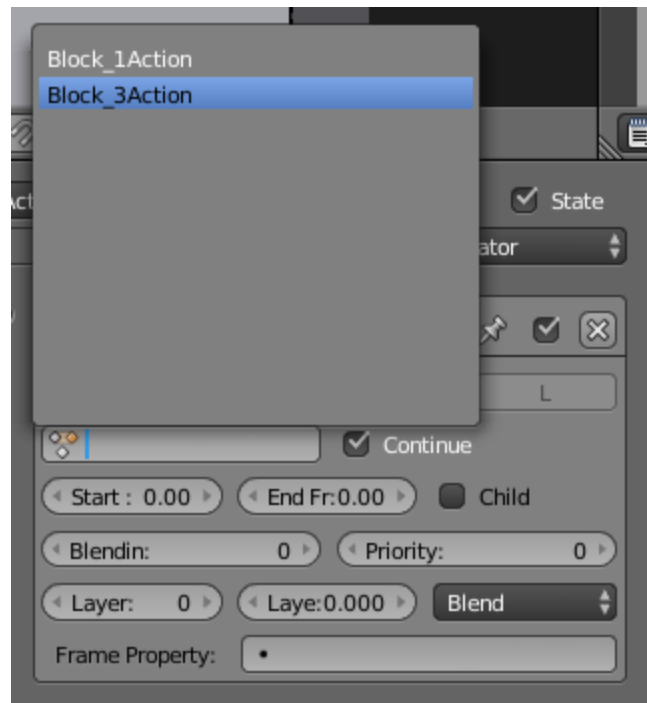
66) ADD AN 'AND' CONTROLLER.

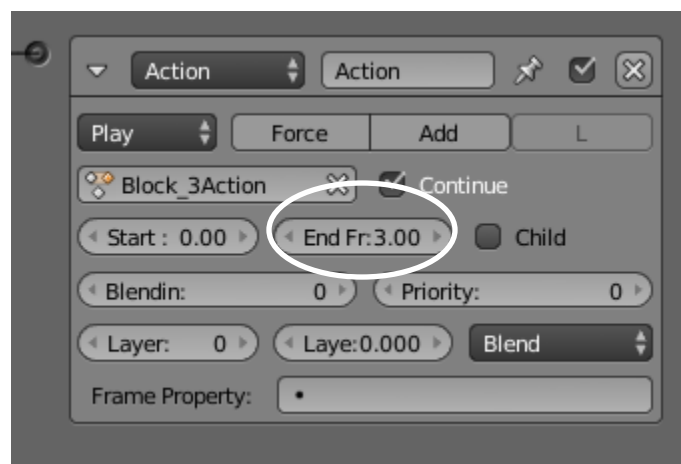**67) CONNECT BOTH MOUSE SENSORS TO THE 'AND' CONTROLLER.**

68) ADD AN 'ACTION' ACTUATOR.
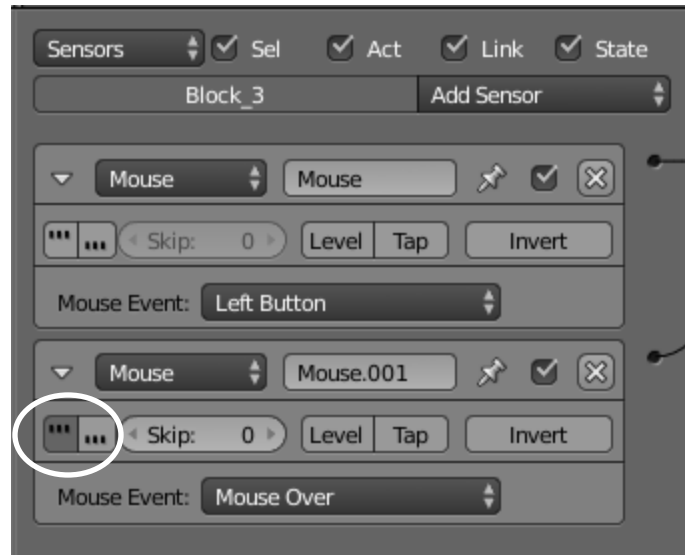

69) CONNECT THE 'AND' TO THE 'ACTION'.

70) IN THE BOX WITH THE THREE DOTS, SELECT THE 'BLOCK_3ACTION'. THIS IS THE 3-FRAME ANIMATION THAT WE SET UP EARLIER FOR THE EXIT BOX.

71) CHANGE THE END FRAME TO '3' (CIRCLED). THIS SPECIFIES THE LENGTH OF OUR ANIMATION.
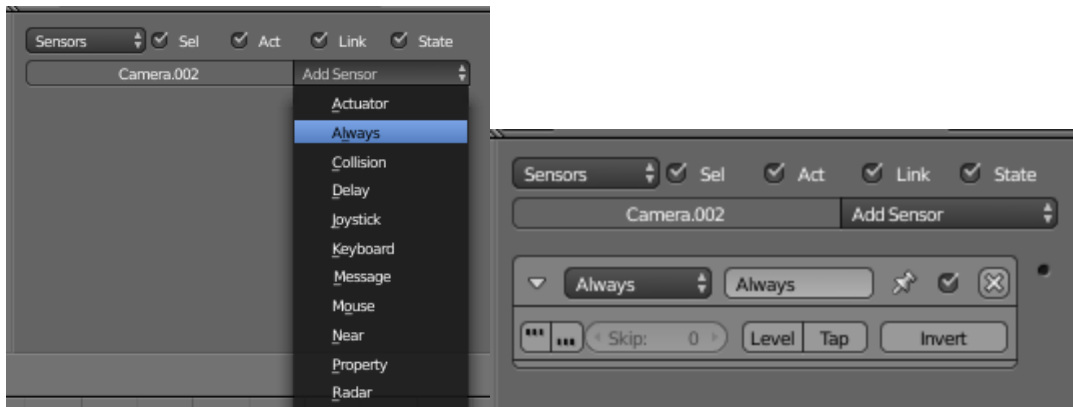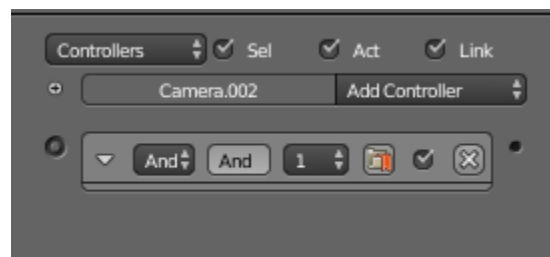
72) TO FINISH UP THIS BUTTON,
    SELECT 'TRUE' ON THE MOUSE OVER
    SENSOR.
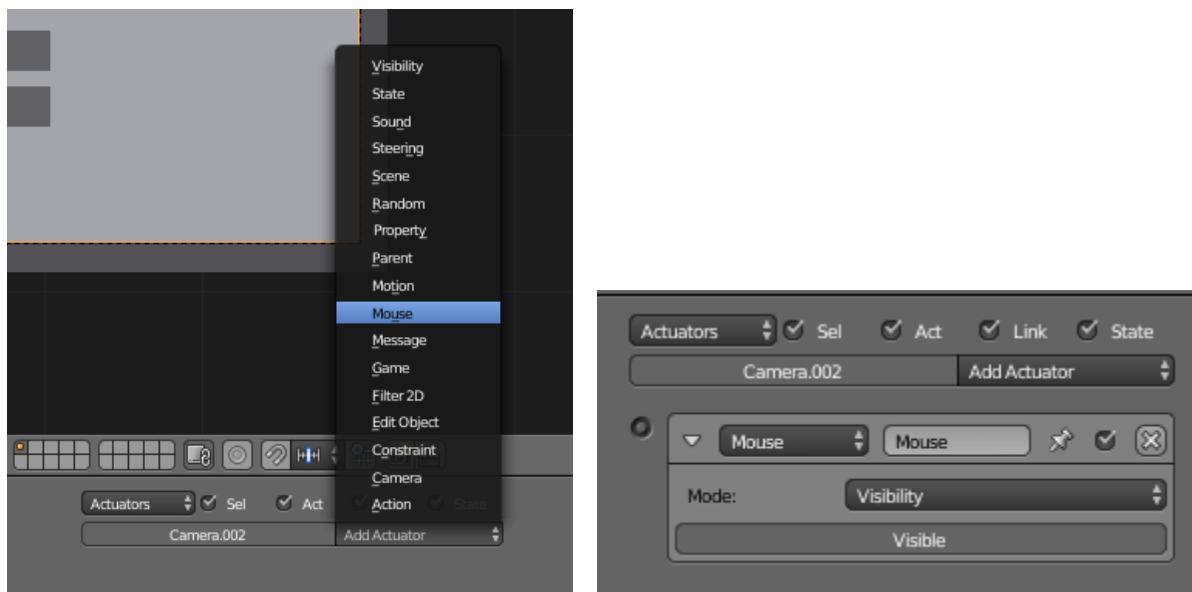

73) LET'S MAKE THE MOUSE VISIBLE
    ONLY WHEN OUR MENU IS UP.
    SELECT THE CAMERA IN YOUR MENU
    SCENE.

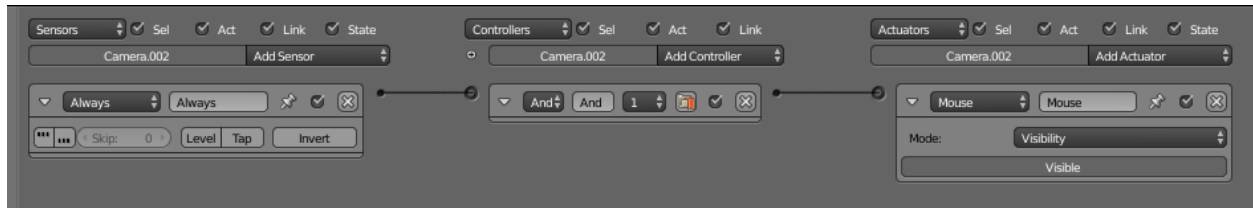**74) ADD AN 'ALWAYS' SENSOR.**
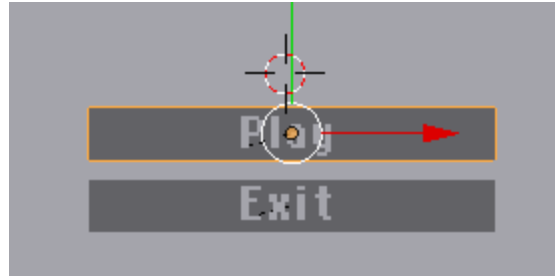

75) ADD AN 'AND' CONTROLLER.

**76) ADD A 'MOUSE' ACTUATOR. MAKE SURE 'VISIBLE' IS CLICKED.**

77) MAKE SURE ALL THREE ARE CONNECTED.

78) NOW, PRESS 'START' IN THE RENDER TAB OR 'P' TO PLAY YOUR GAME. YOU WILL SEE YOUR MOUSE CURSOR (NOT PICTURED). CLICK ON YOUR 'EXIT' BUTTON. THE BUTTON SHOULD SHRINK (PICTURED). THIS IS YOUR ANIMATION PLAYING.

79) EXIT YOUR GAME BY PRESSING 'ESC'. SELECT YOUR FIRST BLOCK (BEHIND THE 'PLAY' TEXT). LET'S ADD THE SAME FUNCTIONALITY THAT WE ADDED TO THE EXIT BOX.
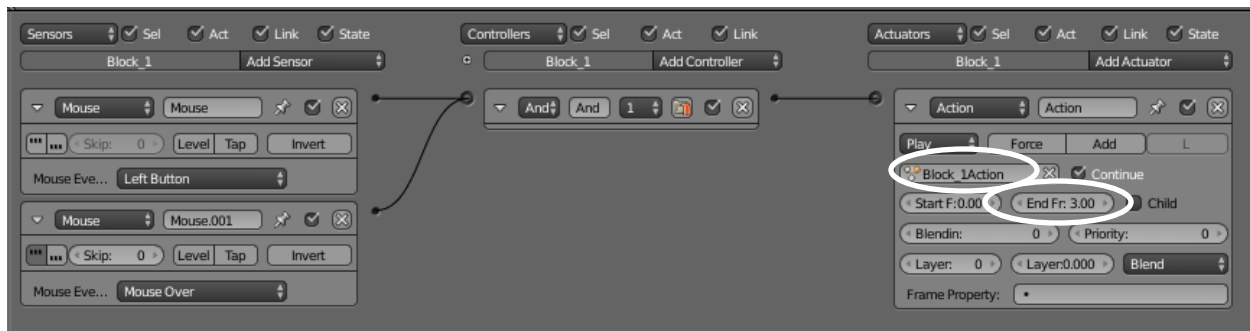

80) YOUR PLAY-BUTTON LOGIC BRICKS SHOULD LOOK LIKE THE PICTURE ABOVE. NOTE THAT YOU ARE USING 'BLOCK_1ACTION' AND AN END FRAME OF '3' IN YOUR ACTION ACTUATOR.

81) TEST OUT YOUR MENU AGAIN BY
PRESSING 'START' IN THE RENDER
TAB OR 'P'. YOU SHOULD BE ABLE
TO SEE THE MOUSE CURSOR, AND
WHEN YOU CLICK ON THE PLAY
BUTTON, IT SHOULD SHRINK
SLIGHTLY. PRESS 'ESC' TO EXIT
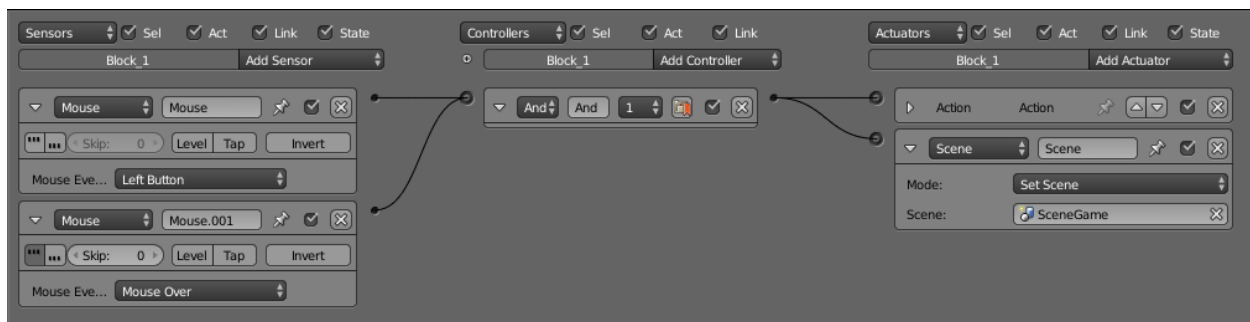YOUR GAME.
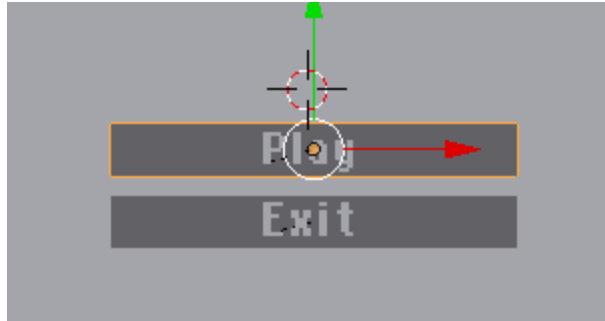
82) LET'S GET OUR 'PLAY' BUTTON WORKING. SELECT THE BOX BEHIND THE 'PLAY' TEXT.
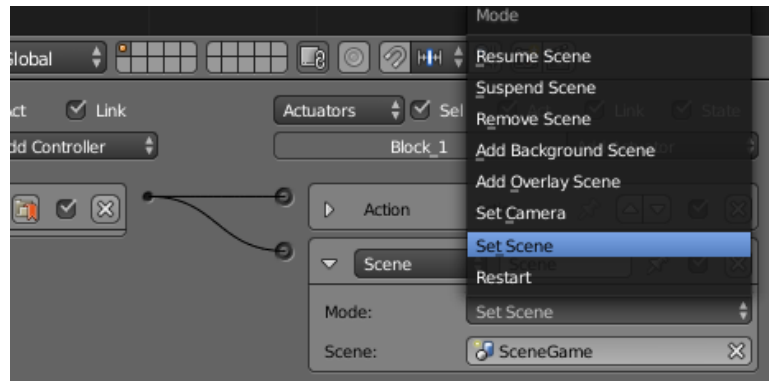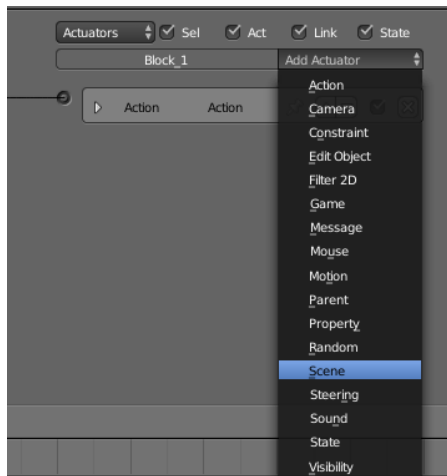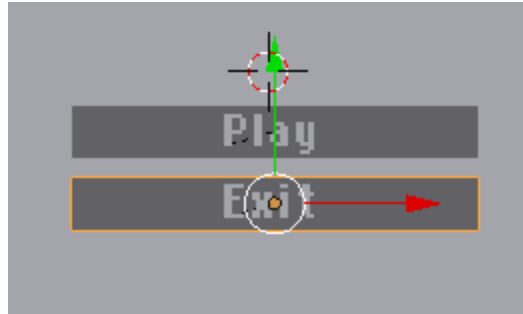

83) ADD A 'SCENE' ACTUATOR BENEATH YOUR ACTION ACTUATOR. NEXT TO MODE, SELECT 'SET SCENE'. CONNECT YOUR AND CONTROLLER TO THE SCENE ACTUATOR.
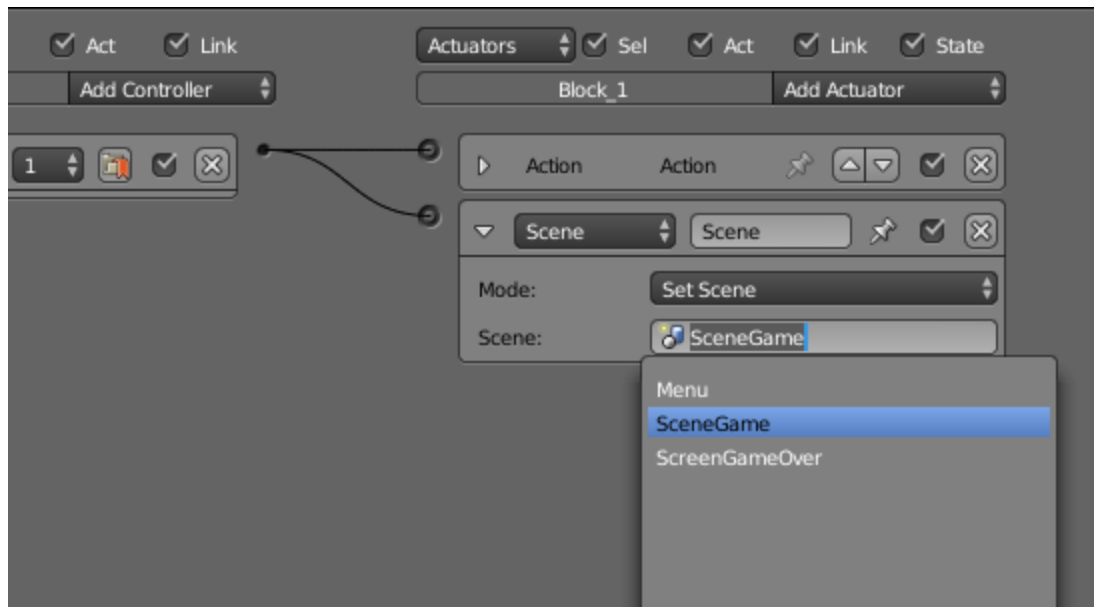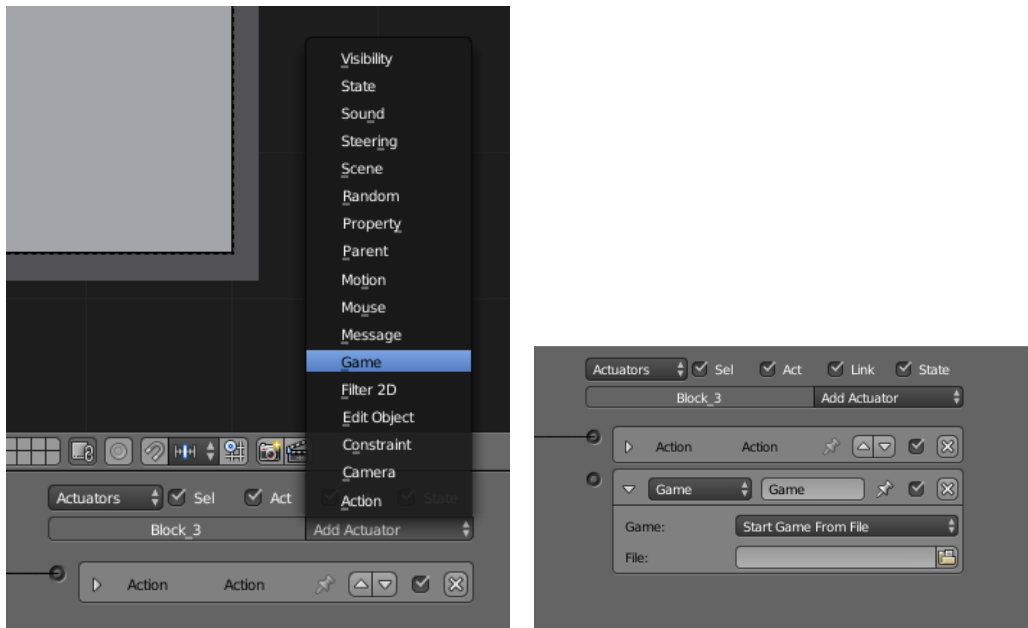
84) SET THE SCENE TO THE NAME OF YOUR MAIN 'GAME' SCENE (THIS WILL BE YOUR GAME THAT SHOWS UP WHEN THE PLAY BUTTON IS CLICKED).

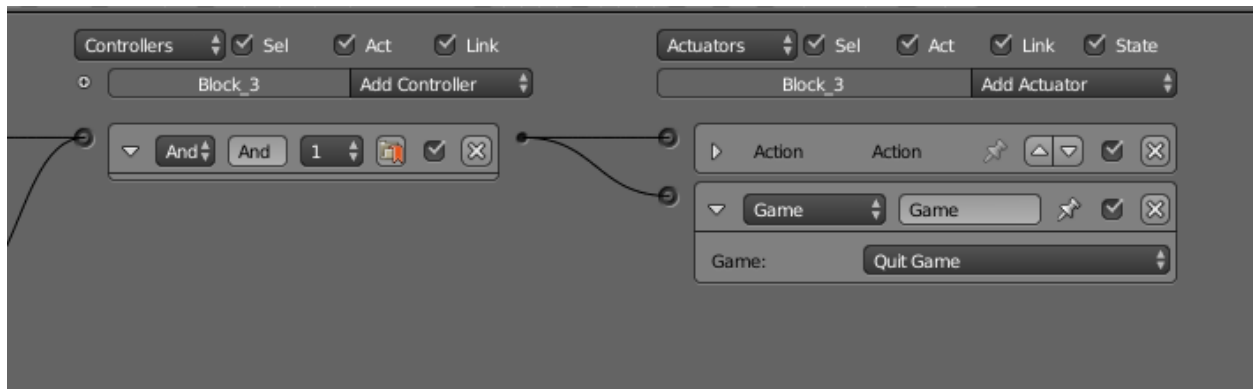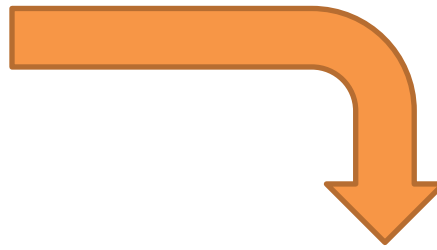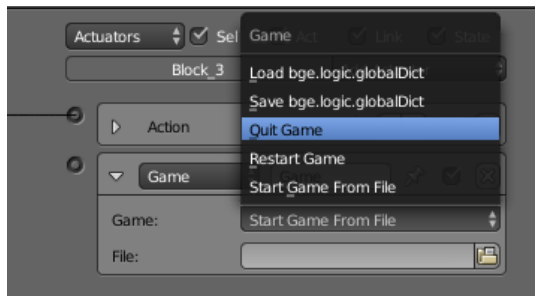**85)** YOUR FINAL PLAY BUTTON LOGIC SHOULD LOOK LIKE THE PICTURE ABOVE.

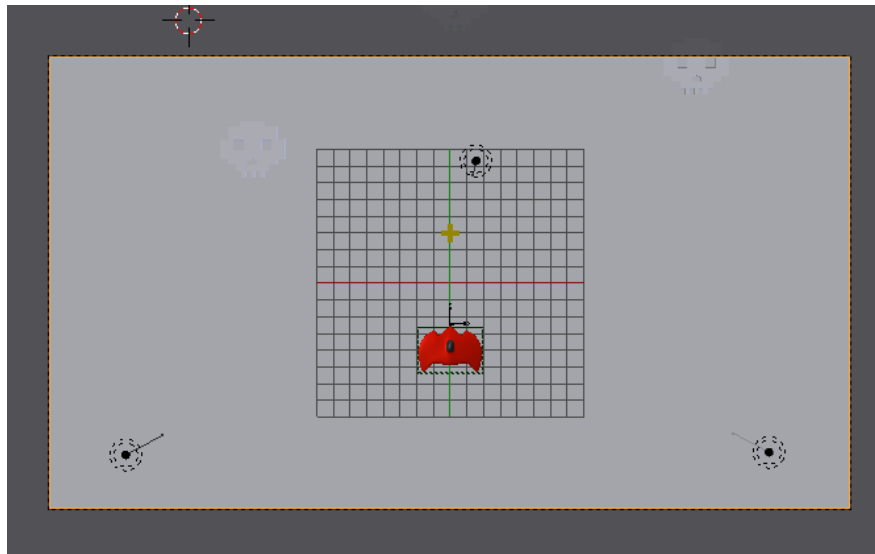**86) LET'S GET THE EXIT BUTTON COMPLETED. SELECT THE BLOCK BEHIND THE 'EXIT' TEXT.**

87) ADD A GAME ACTUATOR BENEATH YOUR ACTION ACTUATOR.

88) CHANGE THE GAME FROM 'START GAME FROM FILE' TO 'QUIT GAME'. CONNECT THE AND CONTROLLER TO THE GAME ACTUATOR.
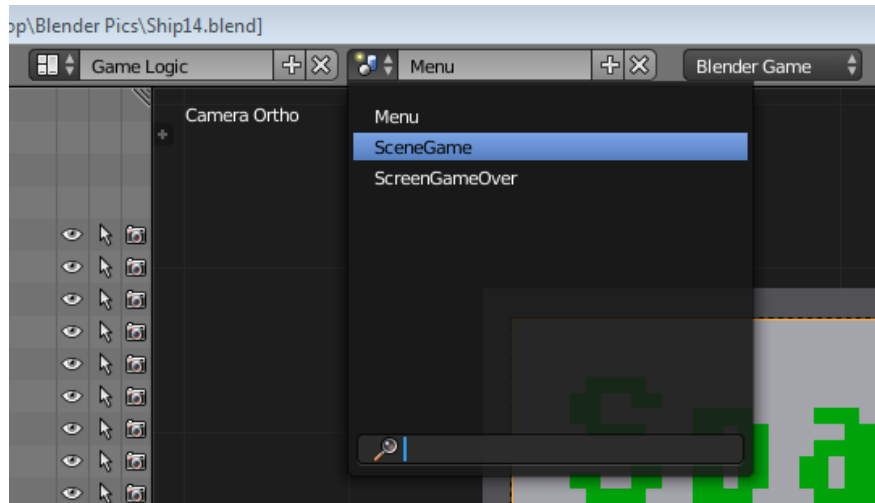
89) THE LAST THING WE'LL DO IN
     THIS TUTORIAL IS MAKE THE
     MOUSE CURSOR NOT VISIBLE WHILE
     PLAYING OUR GAME. THE 'VISIBLE'
     MOUSE ACTUATOR THAT WE ADDED
     MAKES OUR MOUSE VISIBLE
     THROUGHOUT THE ENTIRE GAME,
     WHICH WE DON'T WANT. SO: SELECT
     YOUR GAME SCENE FROM THE MENU,
     AND THEN SELECT THE CAMERA.
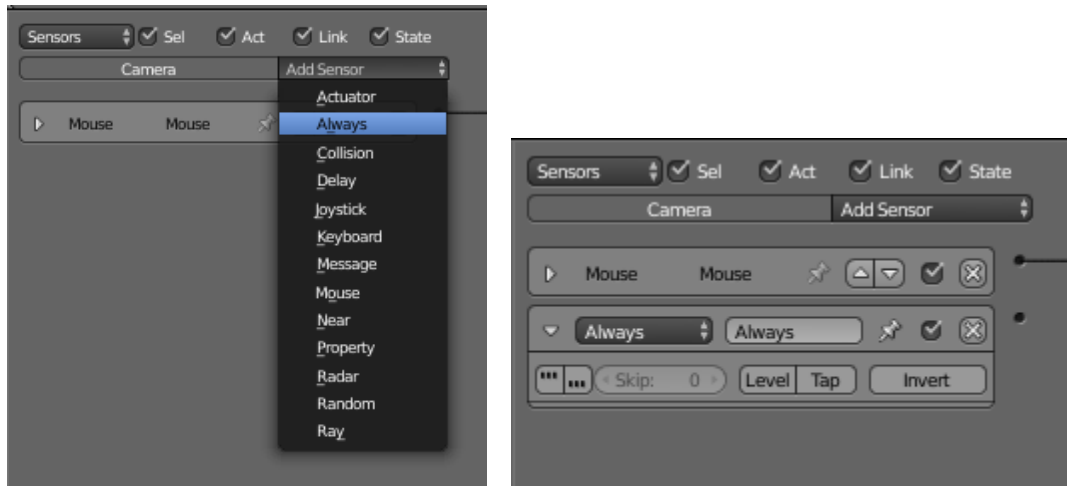
90) IN YOUR LOGIC BRICKS FOR THE CAMERA, ADD AN 'ALWAYS' SENSOR.
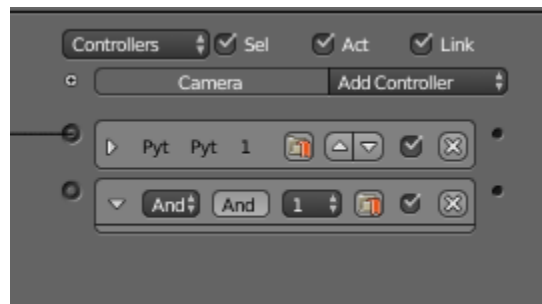
91) ADD AN 'AND' CONTROLLER.
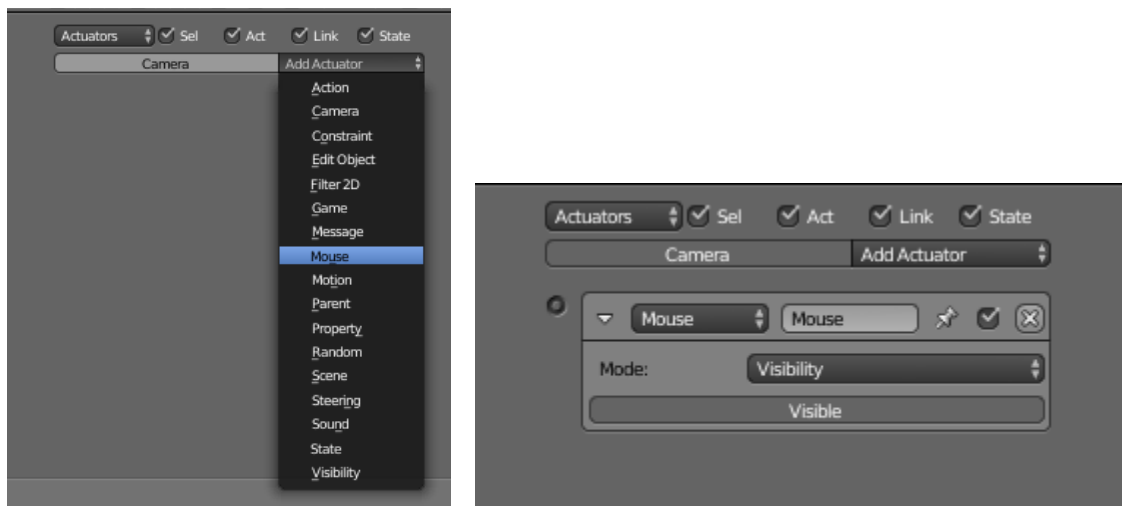
92) ADD A 'MOUSE' ACTUATOR.

93) MAKE SURE ALL THREE BLOCKS ARE CONNECTED. UNCHECK THE 'VISIBLE' OPTION IN THE MOUSE ACTUATOR.
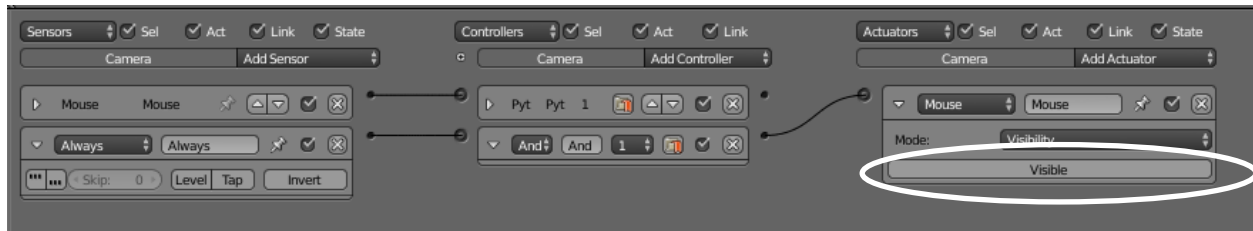

94) NOW, IF YOU PLAY YOUR GAME (START AT THE MENU SCREEN) YOU SHOULD HAVE A FUNCTIONING MENU, WITH A PLAY BUTTON AND AN EXIT BUTTON. YOU SHOULD BE ABLE TO SHOOT AT AND DESTROY ENEMIES, WHO WILL RESPAWN AT RANDOM POINTS ON THE MAP. YOUR CHARACTER CAN ALSO TAKE DAMAGE AND DIE, PROMPTING A 'GAME OVER' SCREEN.

95) ***BONUS ASSIGNMENT***

ADD FUNCTIONALITY TO YOUR 'GAME OVER' SCREEN; PERHAPS ADD THE OPTION TO EXIT THE GAME, OR RETRY THE LEVEL. IF YOU FOLLOW THE SAME STEPS IN THIS TUTORIAL IT SHOULDN'T TAKE TOO LONG.

NOTES

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