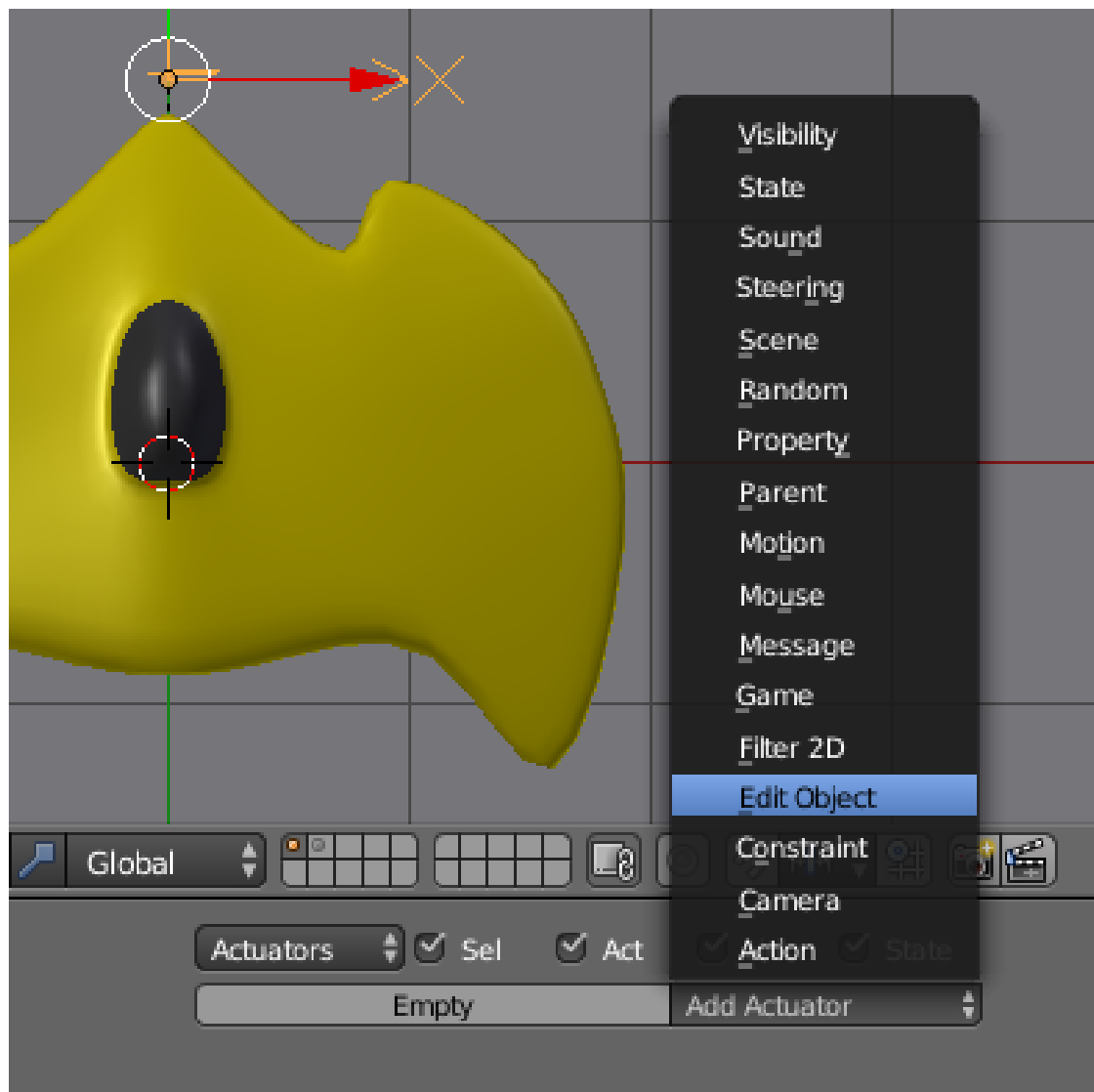


CHAPTER 3:

FIRING PROJECTILES



CHAPTER 3 IS ALL ABOUT FIRING PROJECTILES. BY THE END OF THIS CHAPTER WE'LL HAVE A CONTROLLABLE SPACESHIP THAT CAN FIRE WHENEVER OUR TRIGGER IS PRESSED. THIS CHAPTER IS ON THE SHORTER SIDE, SO THAT SHOULD GIVE YOU MORE TIME TO EXPERIMENT WITH THE PROJECTILE SETTINGS AND CREATE SOMETHING FITTING TO YOUR GAME.

WE'RE ONLY GOING TO MAKE ONE PROJECTILE IN THIS CHAPTER, BUT DON'T LET THAT LIMIT YOUR GAME. IF YOU WANT TO MAKE A PROJECTILE THAT LOOKS LIKE A ROCKET, DO IT. IF YOU WANT TO MAKE A LASER THAT FLIES SUPER-SLOW, DO IT. EXPERIMENT, EXPERIMENT, EXPERIMENT. THE UNDO KEY IS 'CTRL-Z', SO YOU CAN ALWAYS GO BACK IF YOU MESS UP.

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

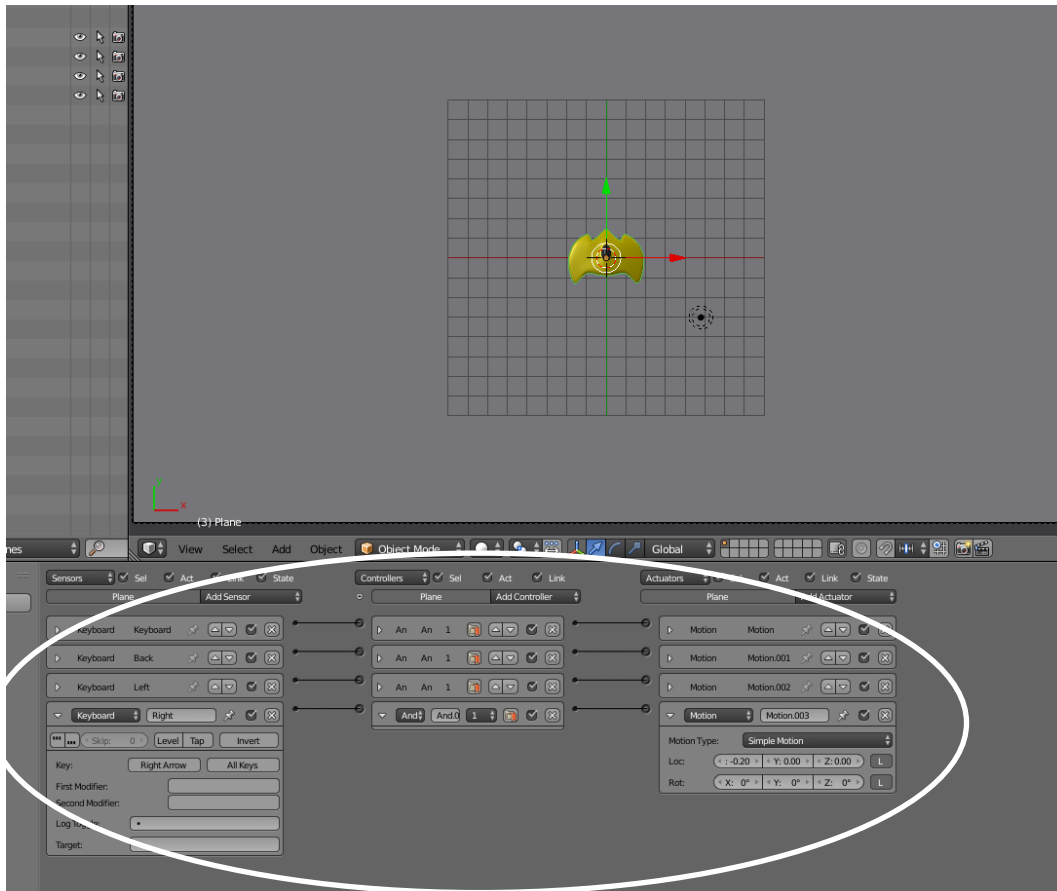
SHIFT+SPACEBAR: MAXIMIZE VIEWPORT

SHIFT+S: SET CURSOR

CTRL+J: JOIN MESHES

Z: TOGGLE WIREFRAME MODE

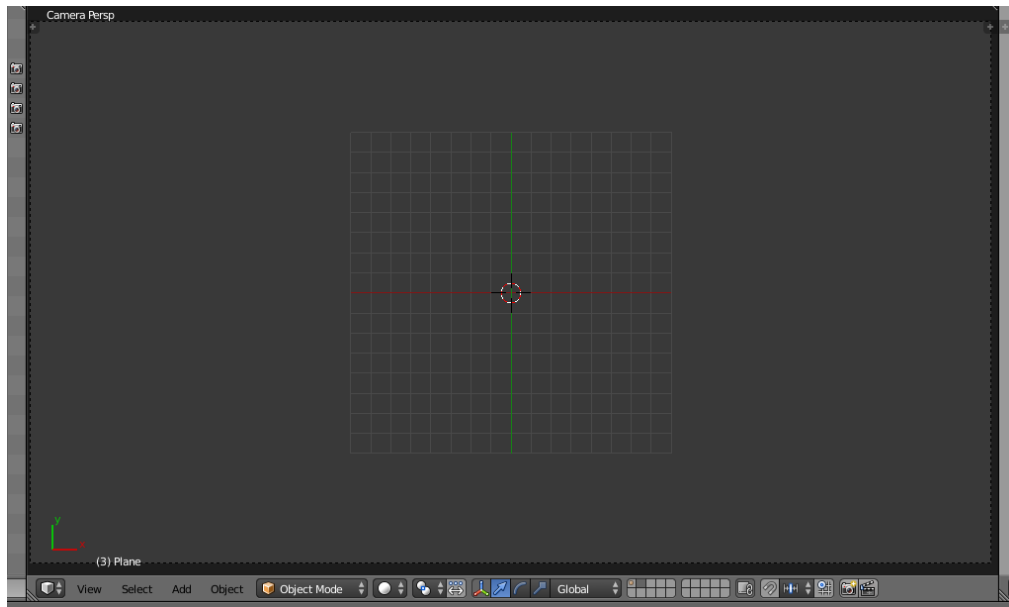
SHIFT+D: DUPLICATE



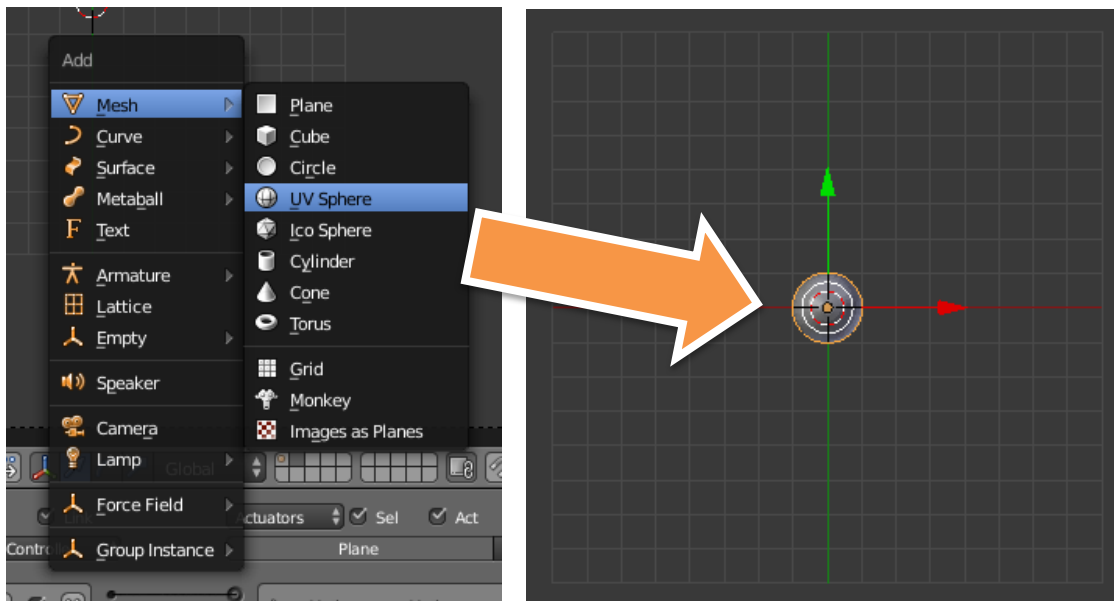
- 1) MAKE SURE THAT YOU HAVE ALL OF YOUR DIRECTIONAL KEYS FROM THE LAST CHAPTER SET UP.



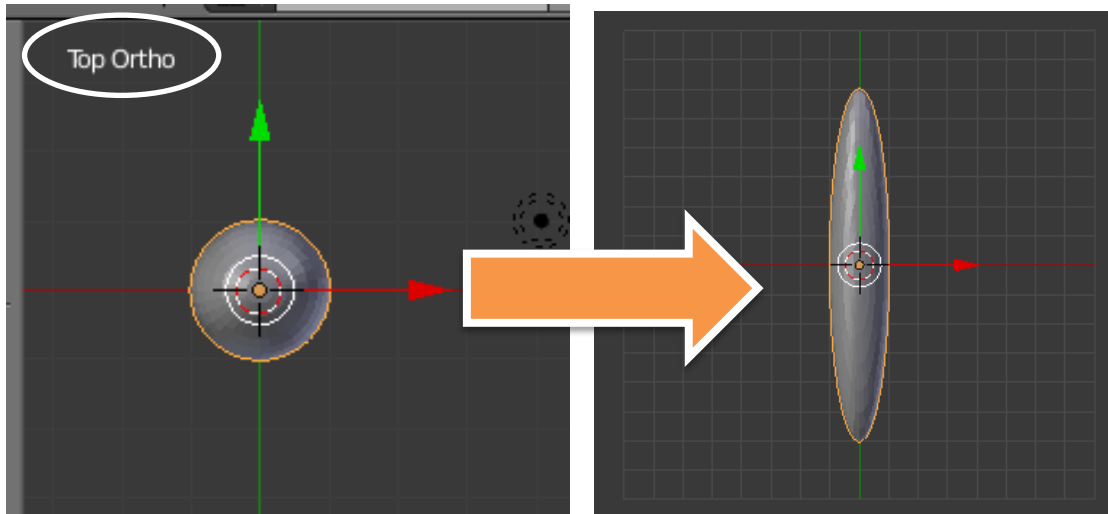
- 2) LOCATE THE LAYER SELECT BOXES. SELECT AN EMPTY LAYER.



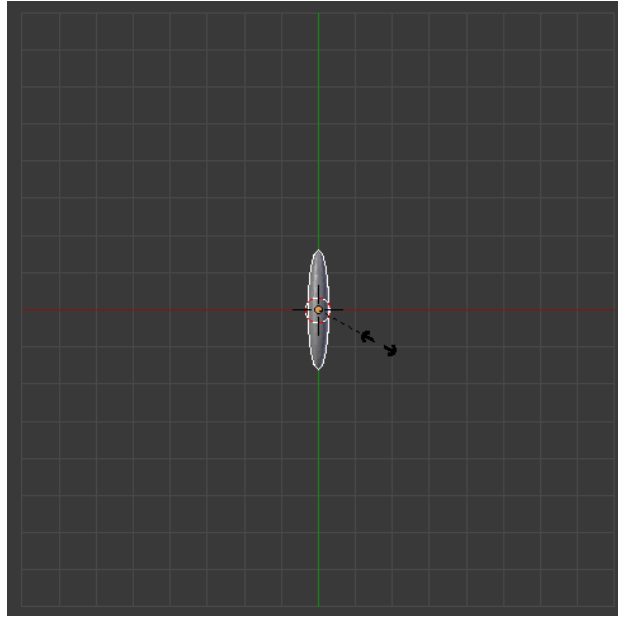
3) YOU SHOULD BE IN AN EMPTY LAYER. SWITCH THE VIEW TO LOOK DOWN AT THE GROUND BY PRESSING '7' (NUM. PAD).



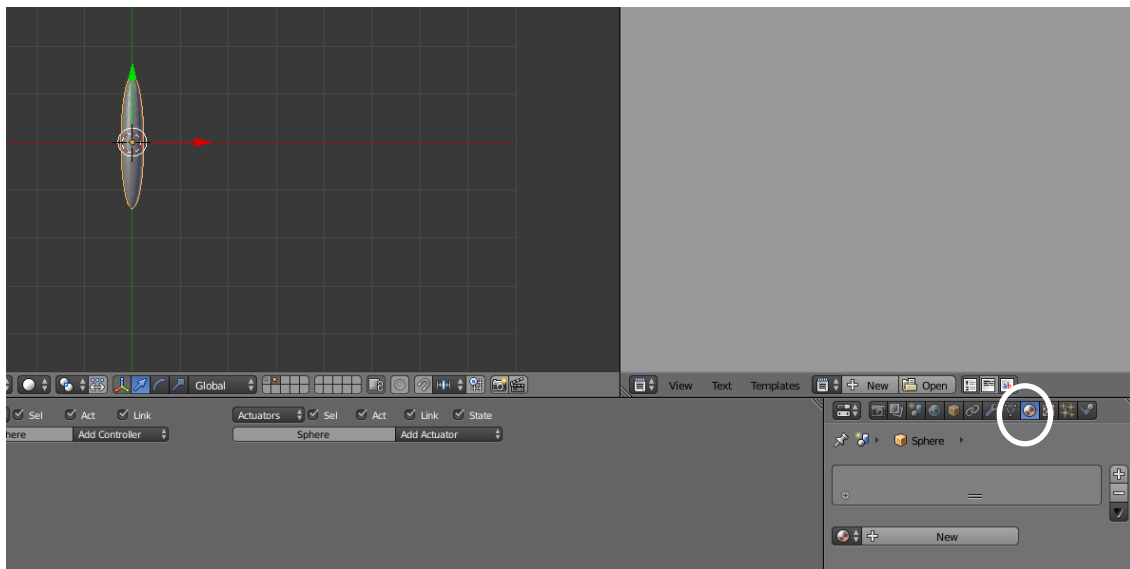
4) PRESS 'SHIFT+A'. SELECT 'MESH' AND THEN 'UV SPHERE'.



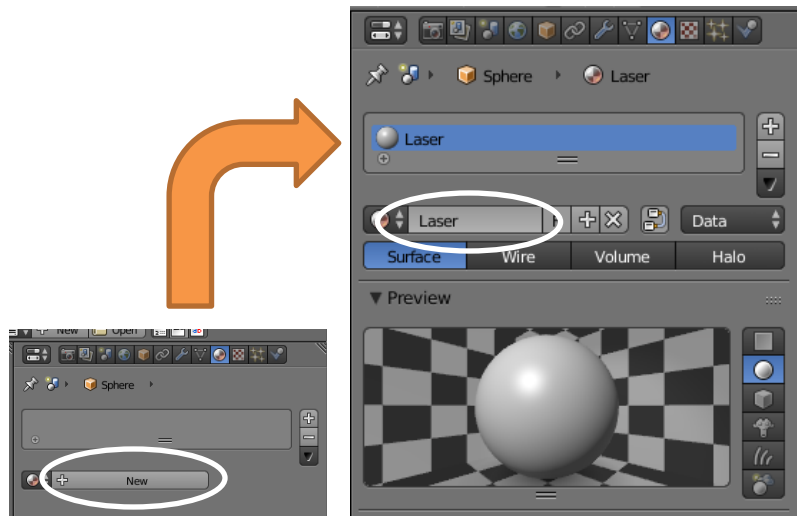
5) IF YOU PREFER, SWITCH TO 'ORTHO' MODE (PRESS '5' ON THE NUMBER PAD). MAKE SURE THAT YOUR SPHERE IS SELECTED. THIS SPHERE WILL BE YOUR PROJECTILE. PRESS 'S' AND THEN 'Y' TO SCALE YOUR SPHERE ALONG THE Y-AXIS. LEFT-CLICK TO SET THE SIZE.



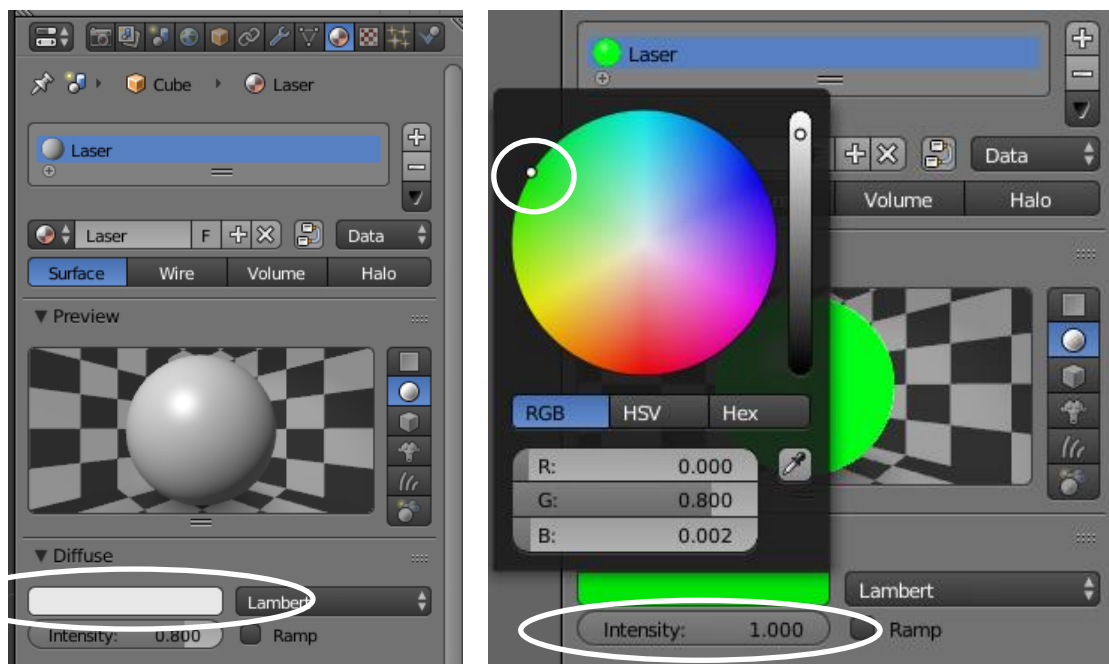
6) MAKE THE PROJECTILE SMALLER BY PRESSING 'S' AND MOVING THE MOUSE. WE WILL BE ADJUSTING THE SIZE LATER ON SO DON'T WORRY ABOUT BEING PRECISE.



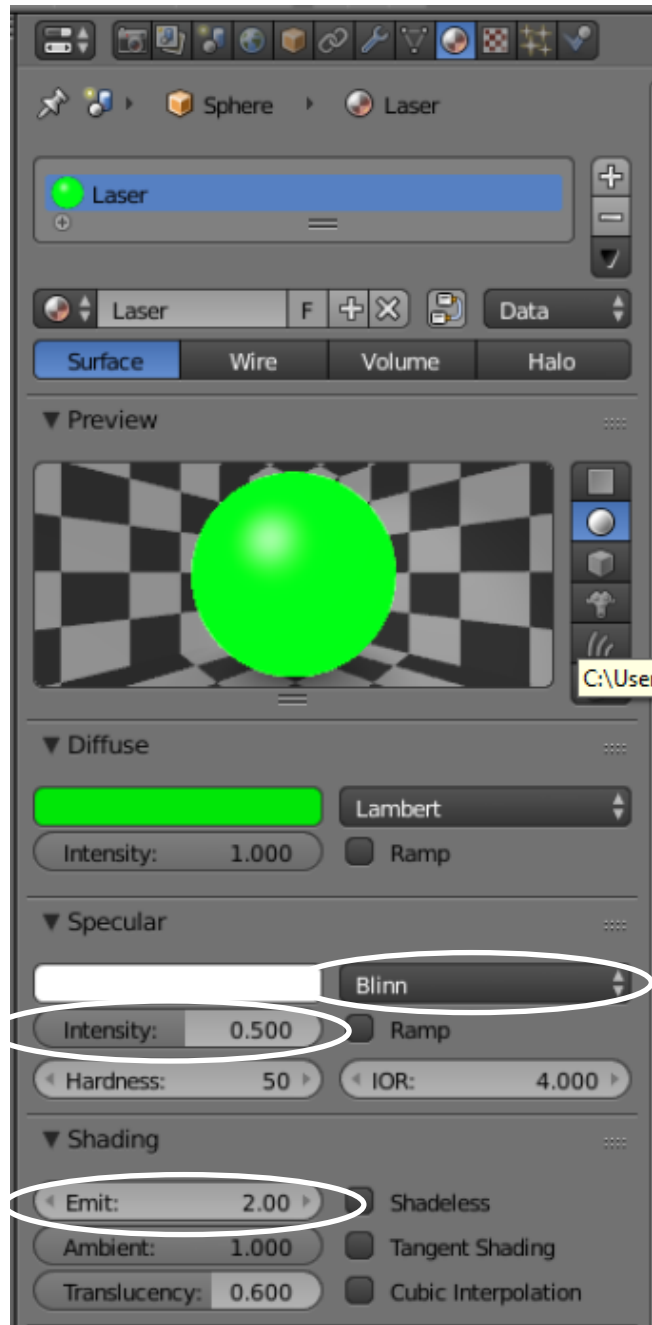
7) LOCATE THE MATERIALS TAB IN THE PROPERTIES PANEL.



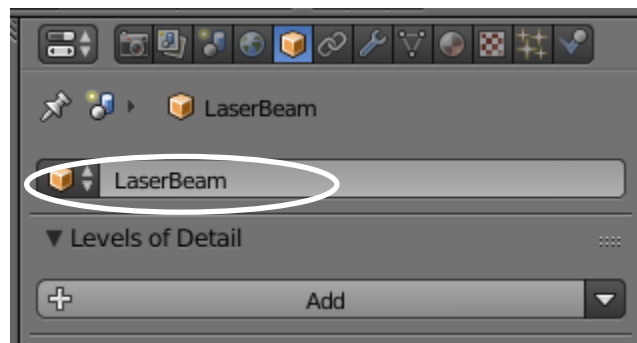
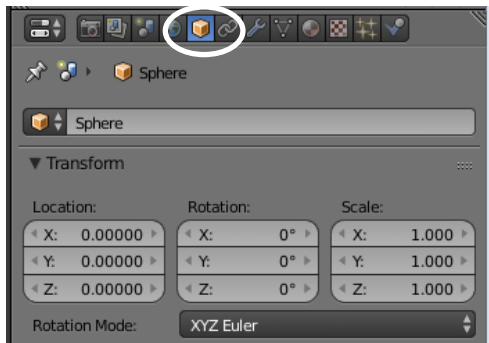
8) CLICK 'NEW' TO ADD A NEW MATERIAL. NAME THIS MATERIAL 'LASER'.



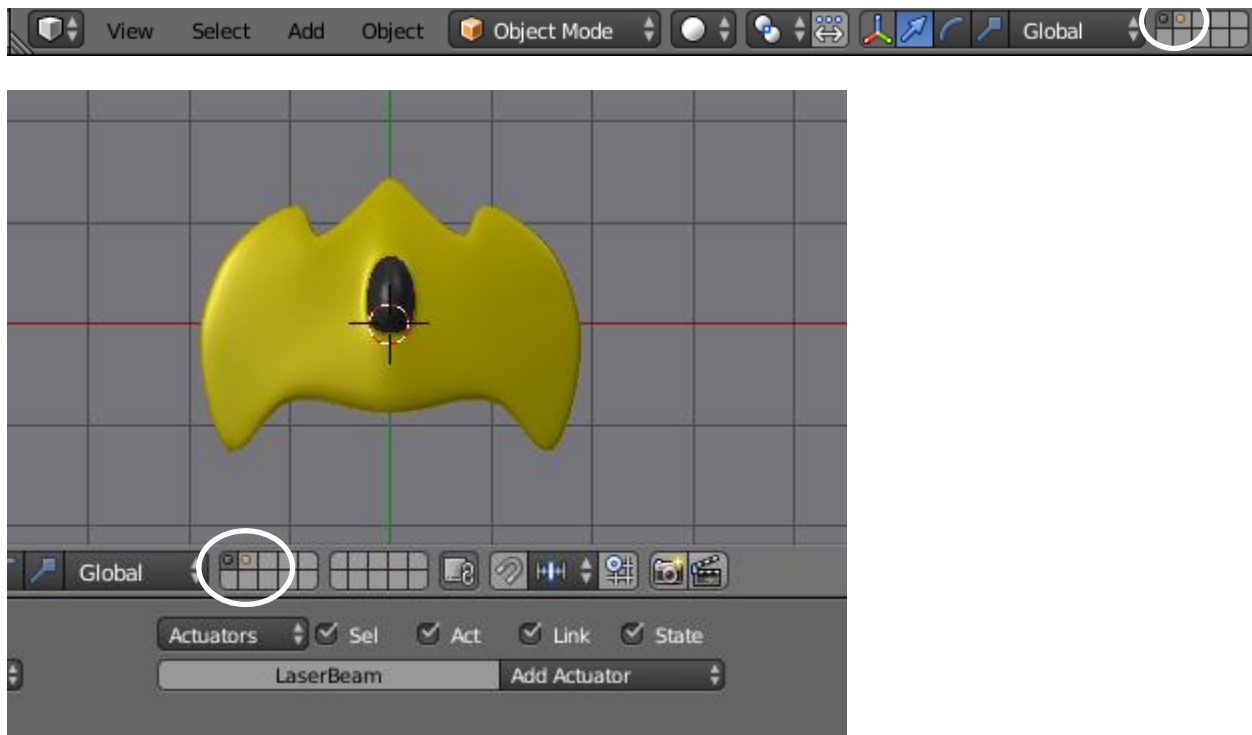
9) FIND THE DIFFUSE BOX. CLICK ON THE WHITE RECTANGLE TO ACCESS THE COLOR WHEEL. SELECT A COLOR. CHANGE THE INTENSITY TO '1.000'.



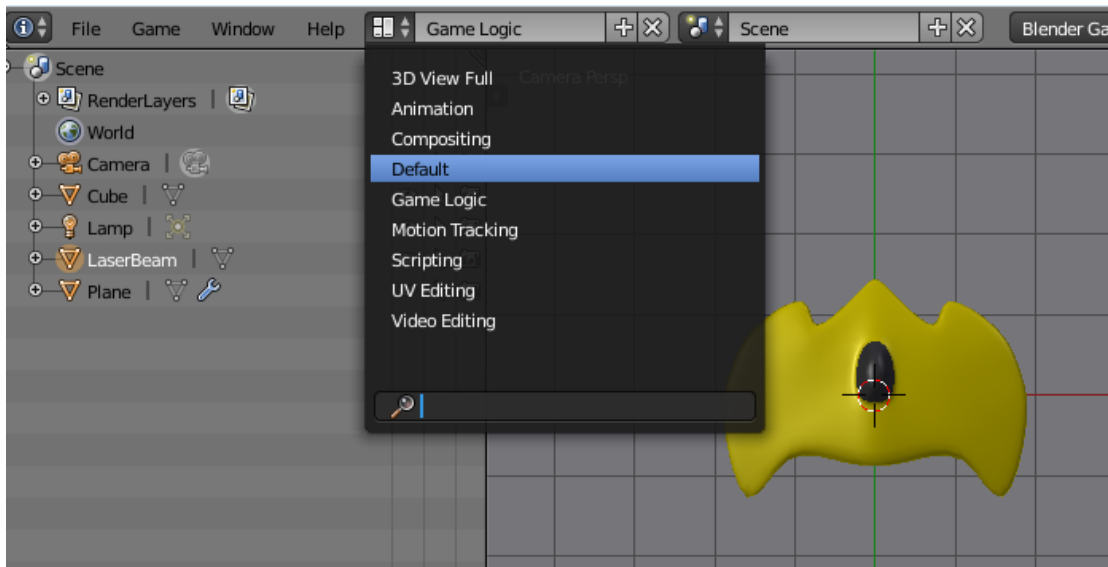
10) YOU CAN USE THE SETTINGS THAT I'VE USED, OR YOU CAN EXPERIMENT BY USING YOUR OWN SETTINGS. YOU CAN ALWAYS ADJUST THESE SETTINGS IF YOU DON'T LIKE THEM.



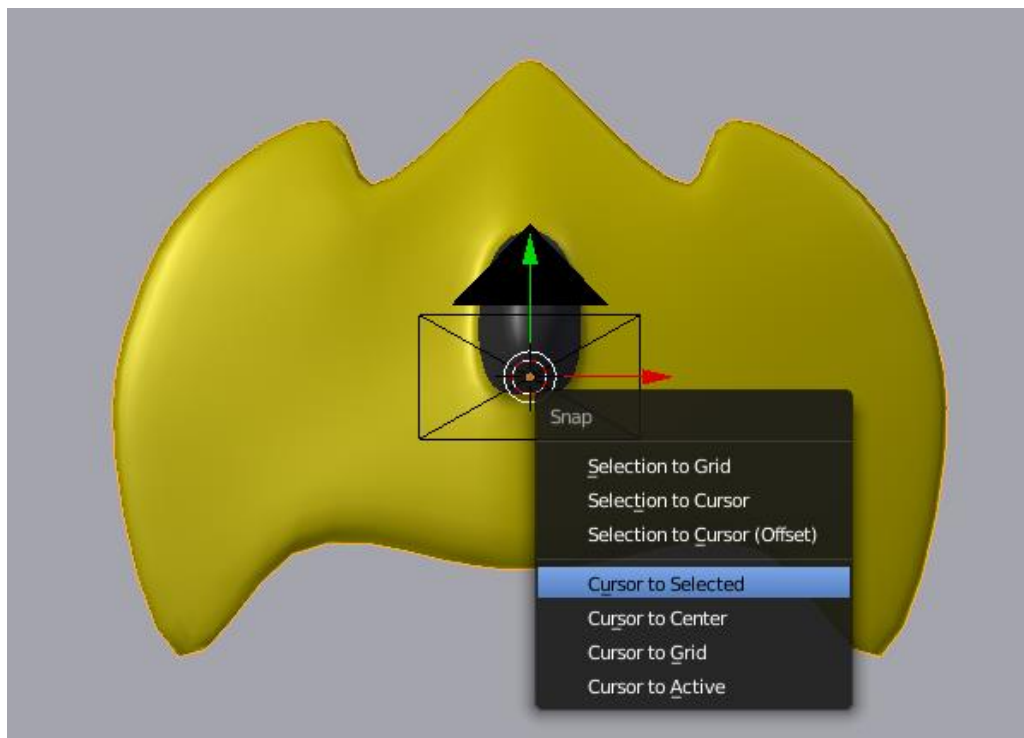
11) WITH YOUR SPHERE STILL SELECTED, FIND THE OBJECT TAB IN THE PROPERTIES PANEL. RENAME THE SPHERE OBJECT 'LASERBEAM'.



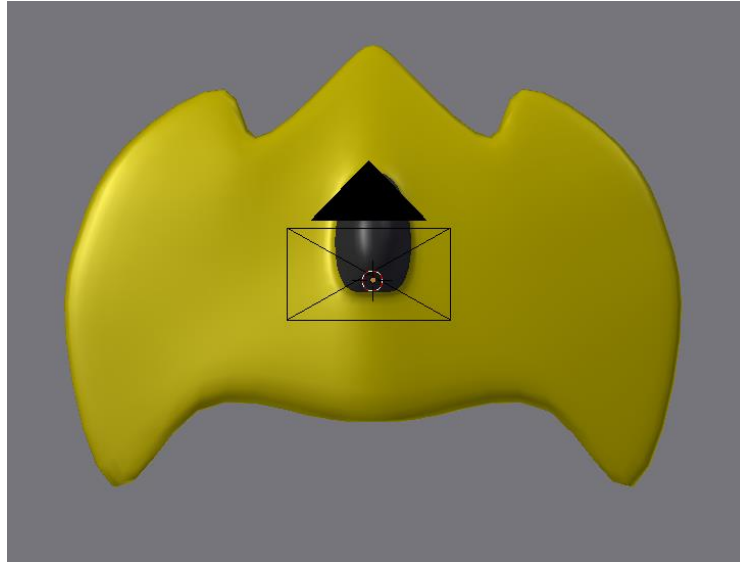
12) CLICK ON THE LAYER 1 BUTTON. IF YOU CAN SEE YOUR SHIP YOU ARE ON LAYER 1.



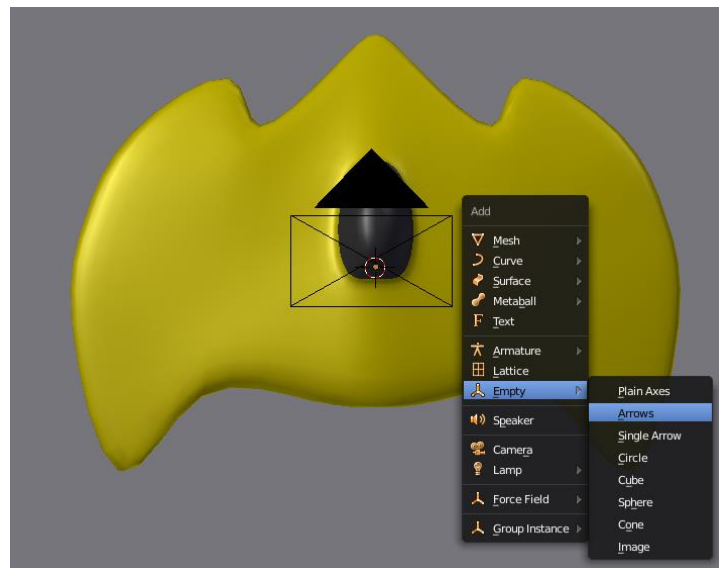
13) SELECT 'DEFAULT' FROM THE SCREEN LAYOUT DROPDOWN.



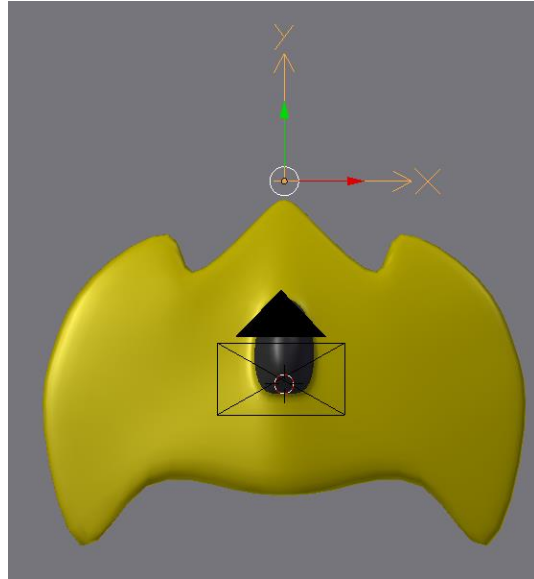
14) SELECT YOUR SHIP BY RIGHT-CLICKING. PRESS 'SHIFT+S' AND SELECT 'CURSOR TO SELECTED'.



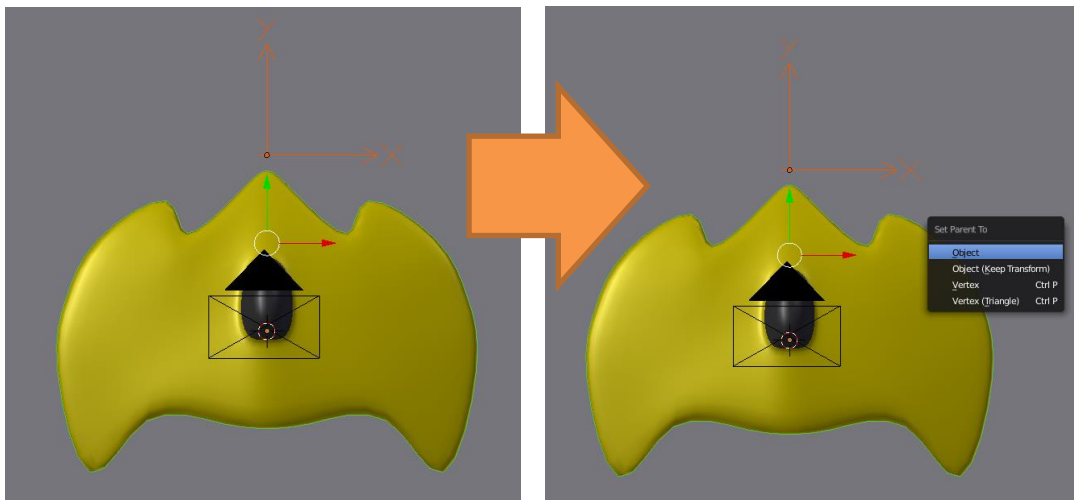
15) YOUR CURSOR SHOULD NOW BE AT THE CENTER OF THE SHIP. PRESS 'A' TO DESELECT EVERYTHING.



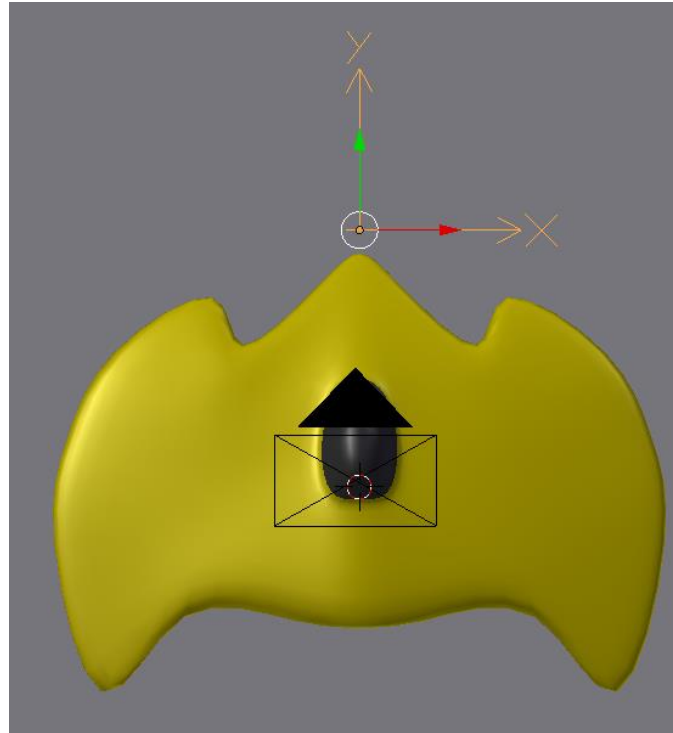
16) PRESS 'SHIFT+A' AND SELECT 'EMPTY' AND THEN 'ARROWS'.



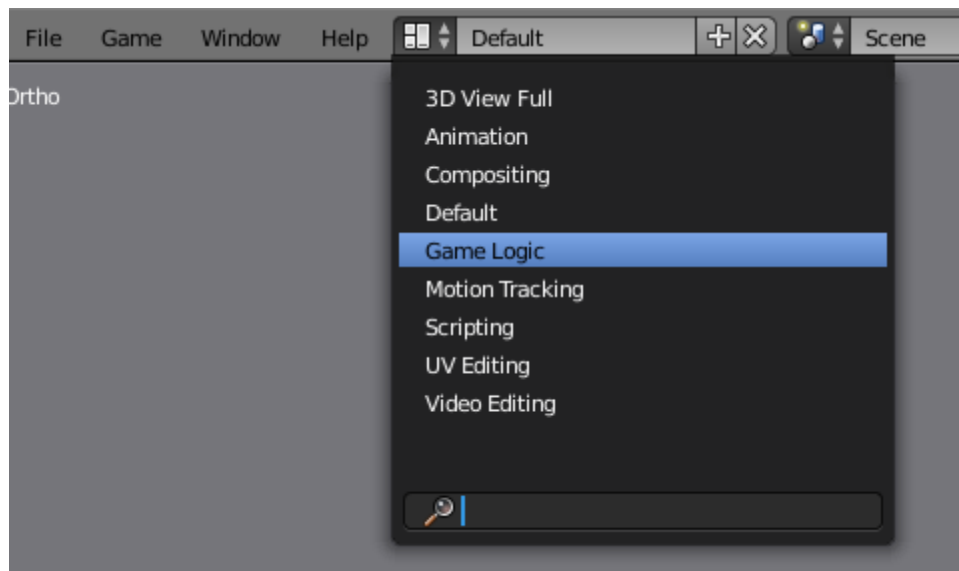
17) USE THE GREEN ARROW TO MOVE THE EMPTY TO THE FRONT OF THE SHIP.



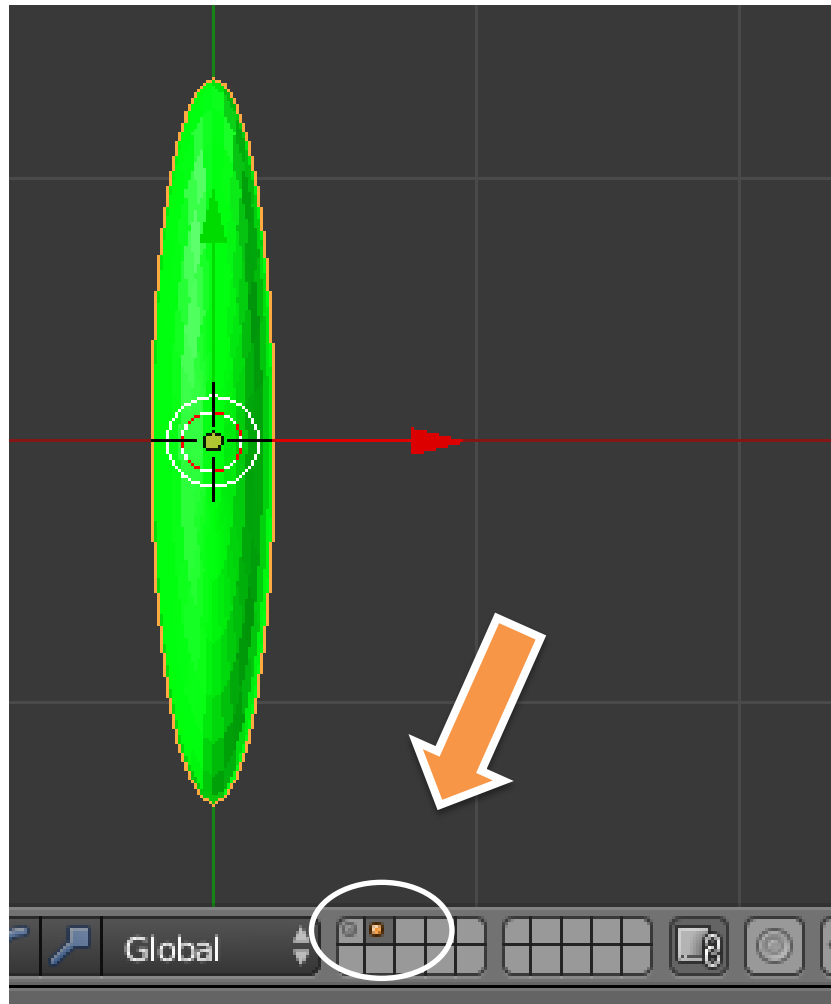
18) WITH THE EMPTY STILL SELECTED (IT WILL BE ORANGE) HOLD 'SHIFT' AND THEN RIGHT-CLICK TO SELECT THE SHIP (THE EMPTY SHOULD TURN DARK ORANGE AND THE SHIP SHOULD TURN GREEN). PRESS 'CTRL+P' AND SELECT 'OBJECT'.



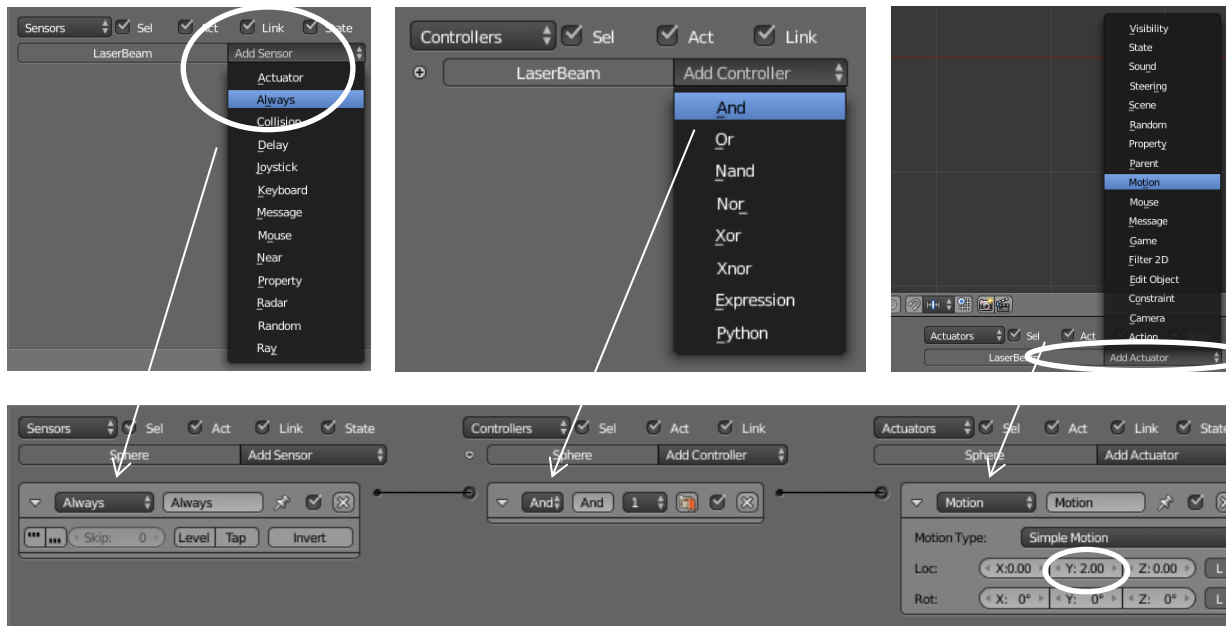
19) RIGHT-CLICK TO SELECT ONLY THE EMPTY.



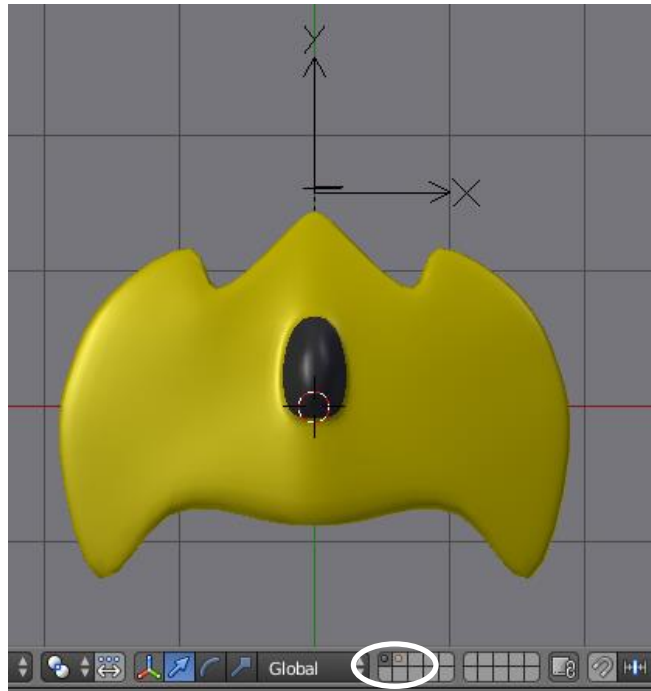
20) SELECT 'GAME LOGIC' FROM YOUR SCREEN LAYOUT DROPDOWN.



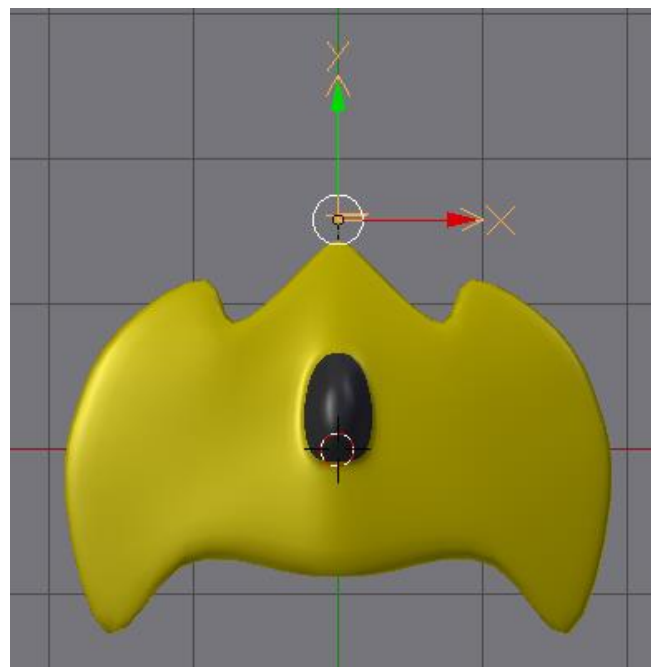
21) SELECT LAYER 2 FROM OUR LAYER BLOCKS. RIGHT-CLICK ON THE LASER PROJECTILE TO SELECT IT.



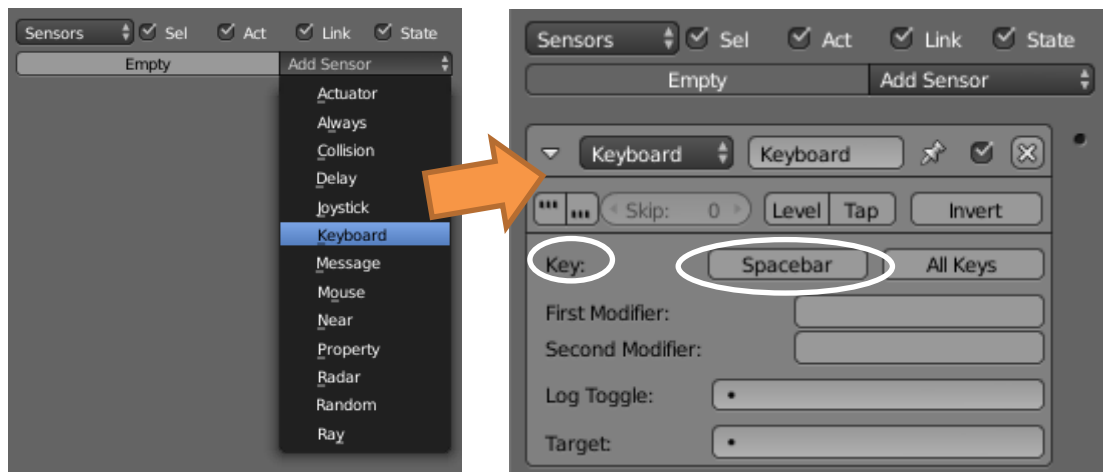
22) IN THE LOGIC BRICK AREA, CLICK ON 'ADD SENSOR' AND SELECT 'ALWAYS'. CLICK ON 'ADD CONTROLLER' AND SELECT 'AND'. CLICK ON 'ADD ACTUATOR' AND SELECT 'MOTION'. IN THIS ACTUATOR, CHANGE THE 'Y-LOC' TO '2.00'. LINK ALL OF THE BLOCKS TOGETHER.



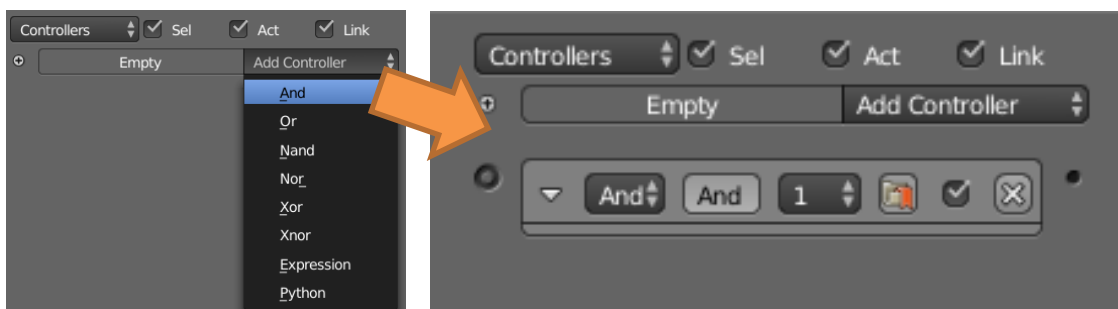
23) GO BACK IN TO LAYER 1 (USE THE LAYER SELECTION BOXES, CIRCLED).



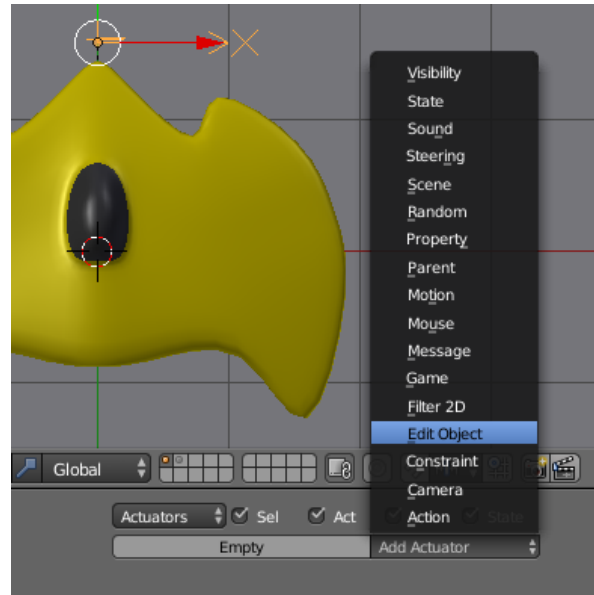
24) RIGHT-CLICK TO SELECT THE EMPTY ARROWS.



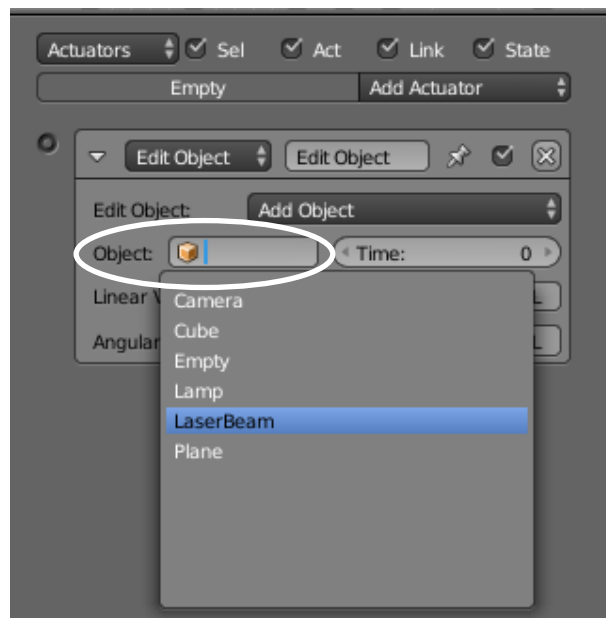
25) IN THE GAME LOGIC PANEL, ADD A 'KEYBOARD SENSOR'. NEXT TO THE WORD 'KEY', CLICK ON THE GRAY BOX AND TAP THE SPACEBAR. YOU SHOULD SEE THE WORD 'SPACEBAR' APPEAR IN THE GRAY BOX.



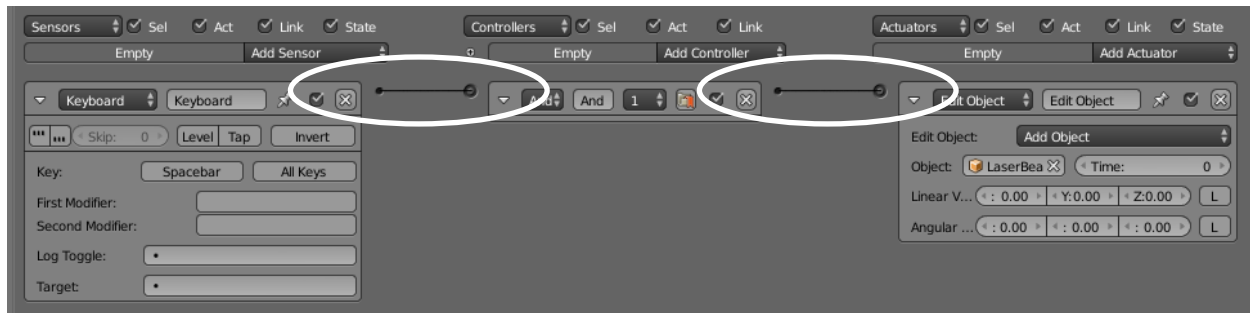
26) CLICK 'ADD CONTROLLER' AND SELECT 'AND'.



27) CLICK ON 'ADD ACTUATOR' AND SELECT 'EDIT OBJECT'.



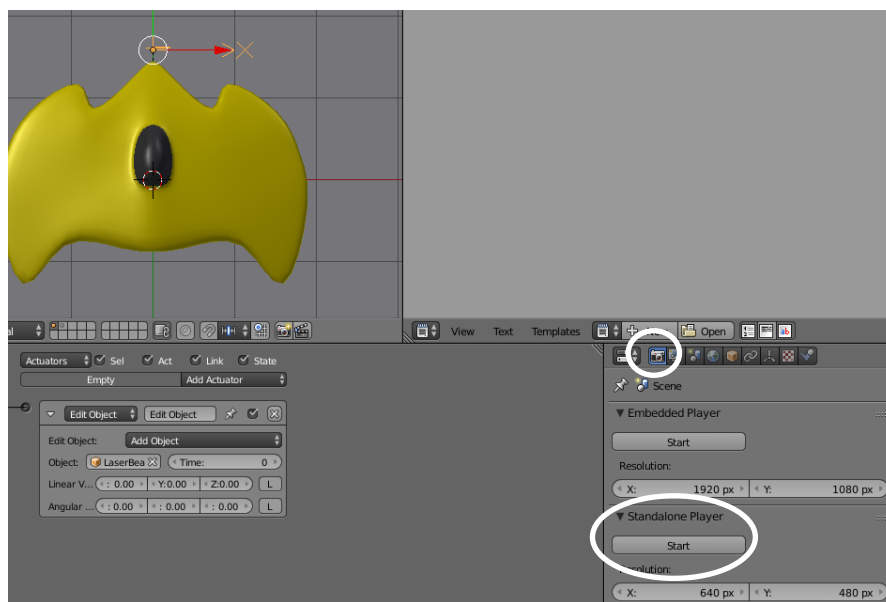
28) FIND THE OBJECT BOX IN YOUR ACTUATOR. CLICK ON THE ORANGE CUBE AND SELECT THE NAME OF YOUR LASER (IN THIS CASE IT IS CALLED 'LASERBEAM').



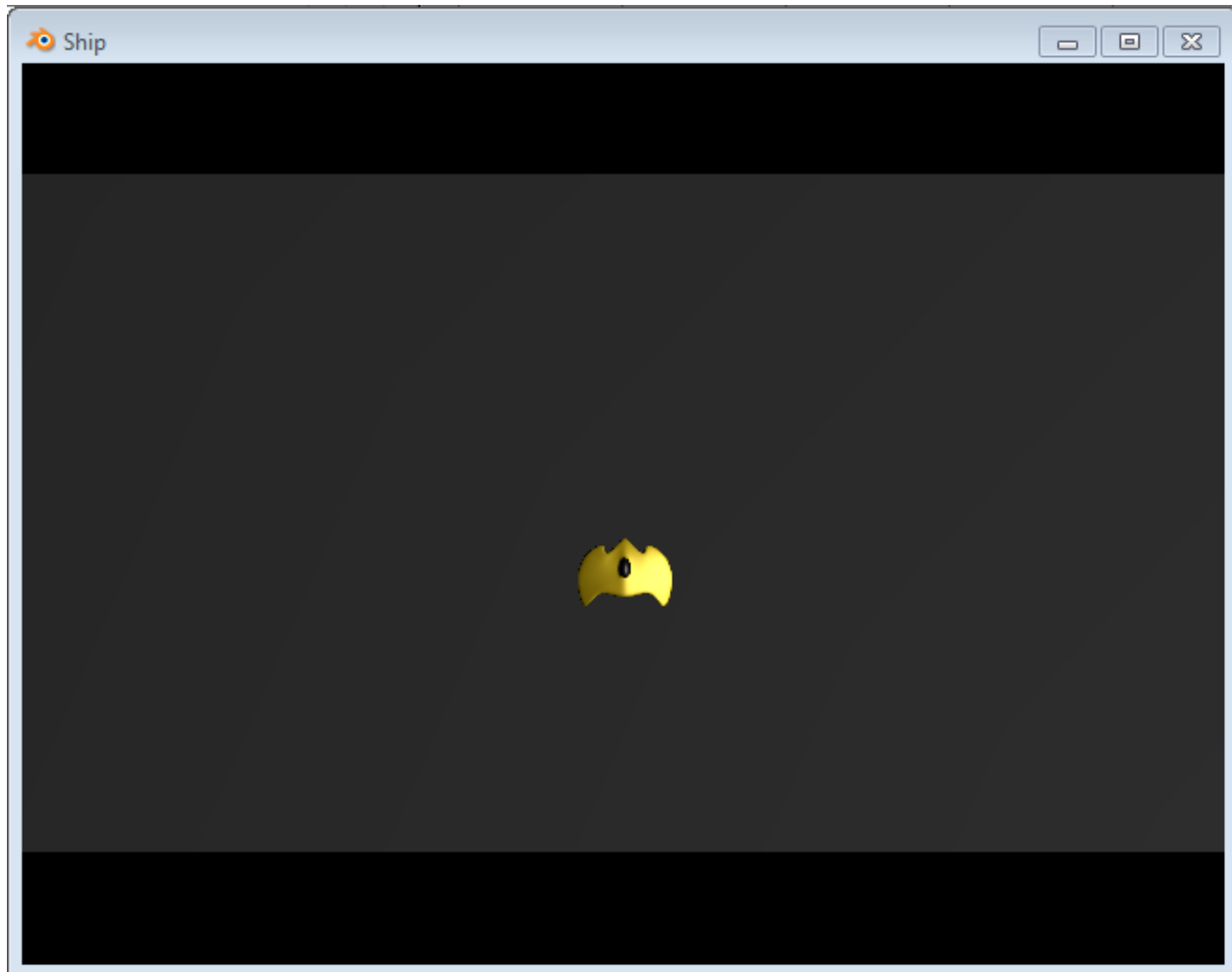
29) HOOK YOUR THREE LOGIC BRICKS TOGETHER.



30) MAKE SURE YOU HAVE THE 'BLENDER GAME' RENDERER SELECTED (AT THE TOP OF THE SCREEN).



31) FIND THE RENDER TAB (IT IS A PICTURE OF A CAMERA IN THE PROPERTIES PANEL). FIND THE SECTION CALLED 'STANDALONE PLAYER'. PRESS THE 'START BUTTON'.



32) YOUR GAME SHOULD START AND YOU SHOULD BE ABLE TO FIRE A LASER BY PRESSING THE SPACE BAR.

33) IF IT WORKED, CONGRATULATIONS!! IF IT DID NOT, MAKE SURE TO GO BACK AND CHECK EACH STEP CAREFULLY.

[illegible]