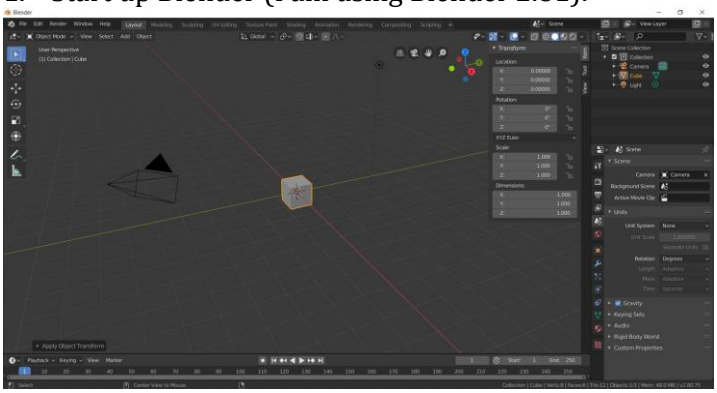
Flor Loomis Robot Key Dimensions

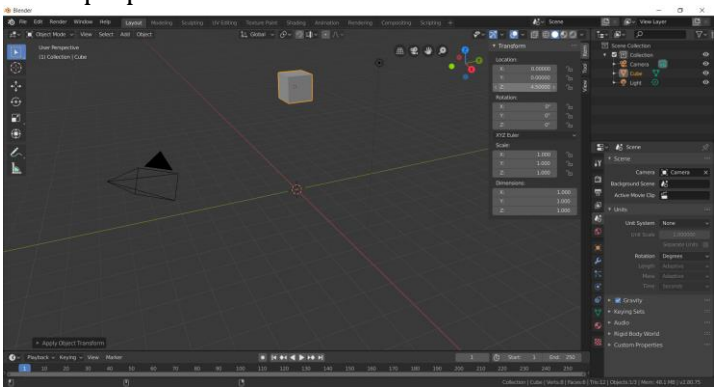
Nick V. Flor

1. Start up Blender (I am using Blender 2.81).



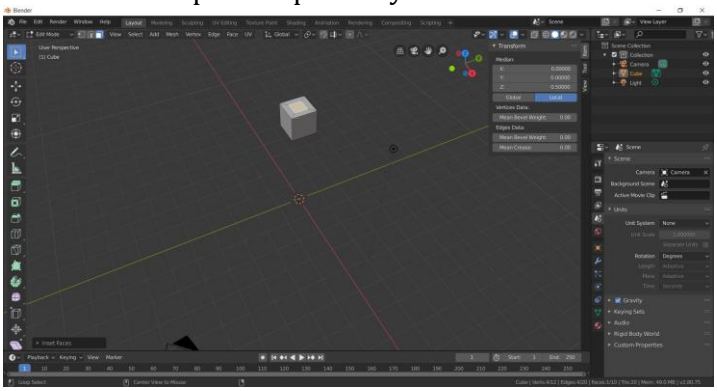
We will extrude the entire robot from this box.

2. Pop-up the box so that the box bottom is at **4** units.



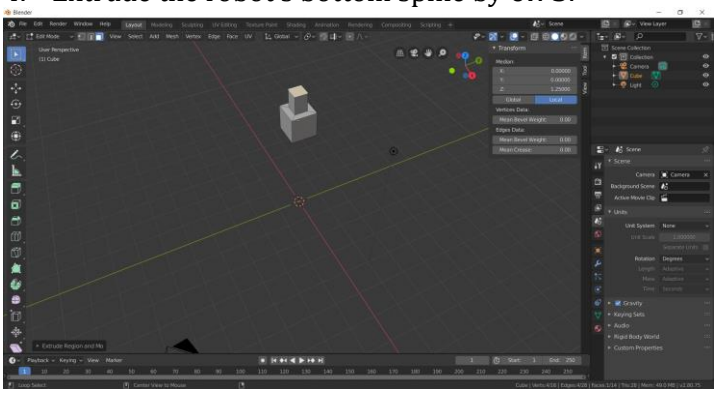
This box will represent the robot's **pelvis**.

3. Inset the top of the pelvis by **0.25**.



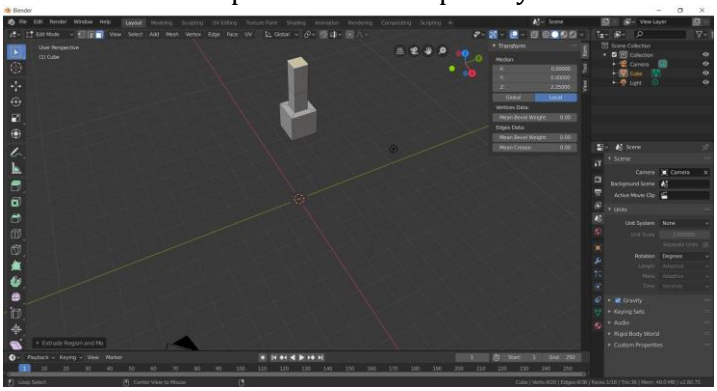
This is the robot's **bottom spine**.

4. Extrude the robot's bottom spine by **0.75**.



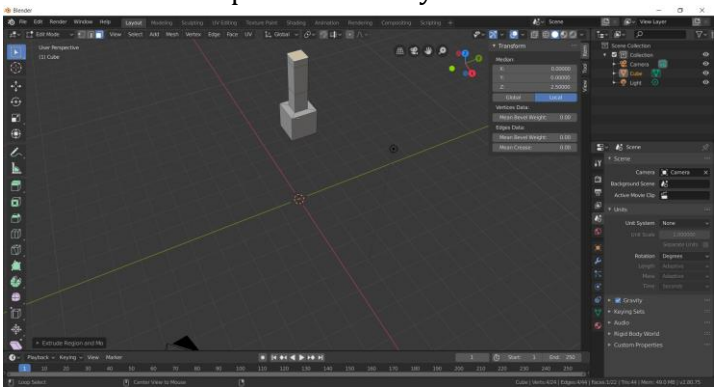
This is the robot's **spine**.

5. Extrude the top of the robot's spine by **1**.



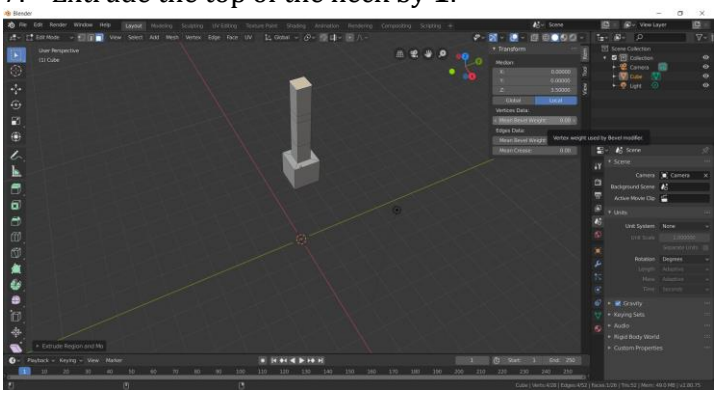
This will eventually become the robot's **chest**.

6. Extrude the top of the chest by **0.25**.



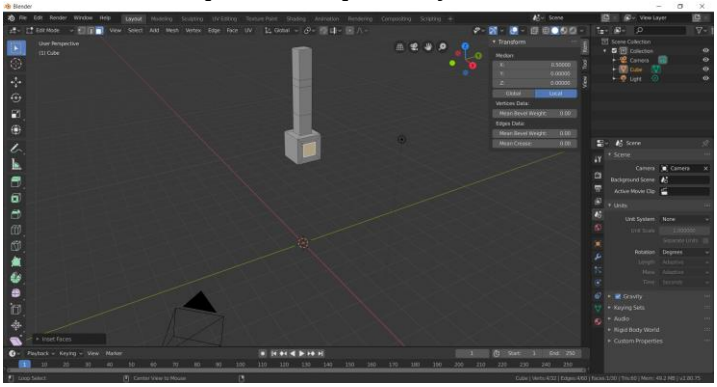
This is the robot's **neck**.

7. Extrude the top of the neck by **1**.



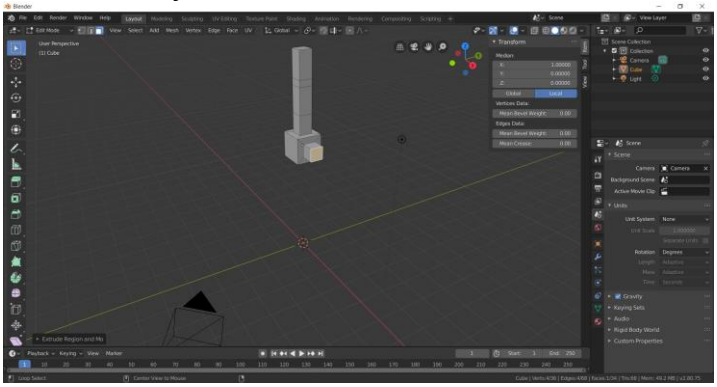
This is the robot's **head**.

8. Inset the +x part of the pelvis by **0.25**.



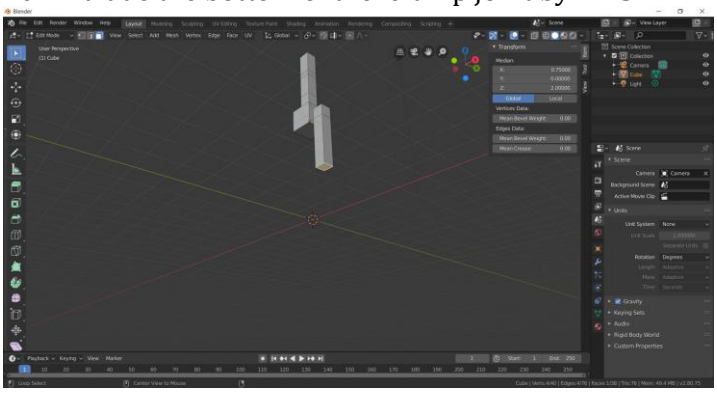
This is the start of the **left hip joint**.

9. Extrude by **0.5**.



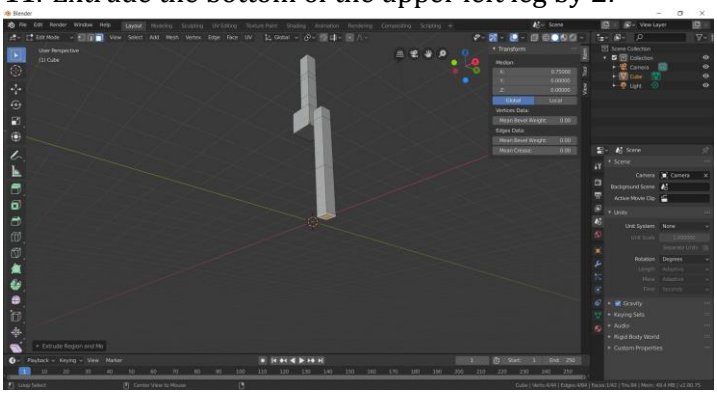
This is the **left hip joint**.

10. Extrude the bottom of the left hip joint by **2.25**.



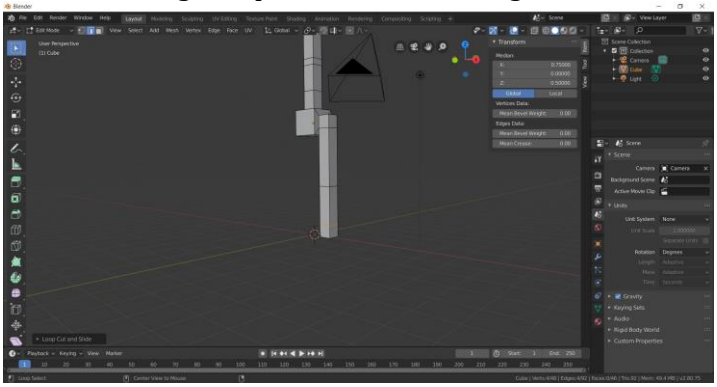
This is the **upper-left leg**.

11. Extrude the bottom of the upper left leg by **2**.



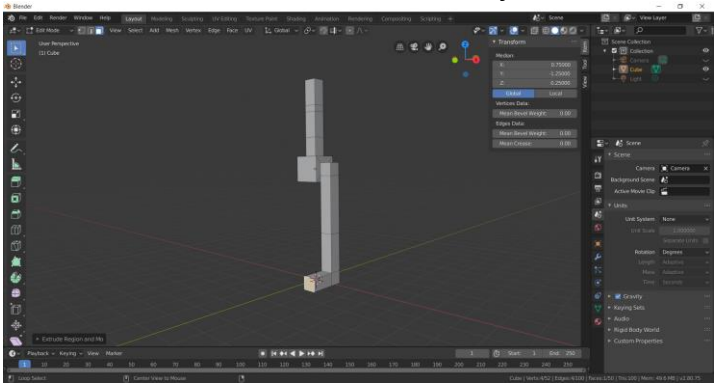
This is the **lower-left leg**.

12. Add an edge-loop to the lower-left leg at z:**0.50**.



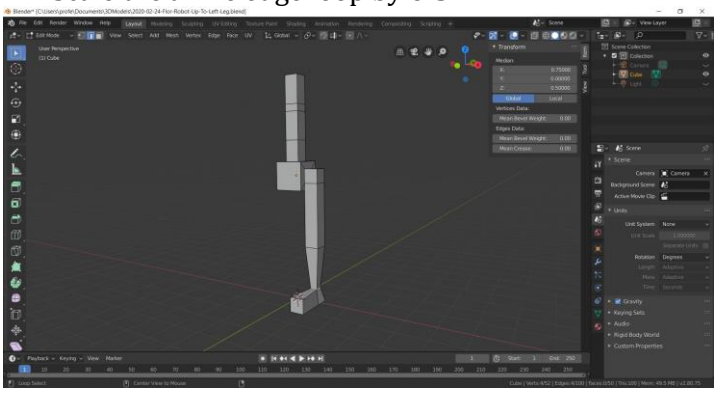
This is the **ankle**.

13. Extrude the front face of the ankle by **1**.



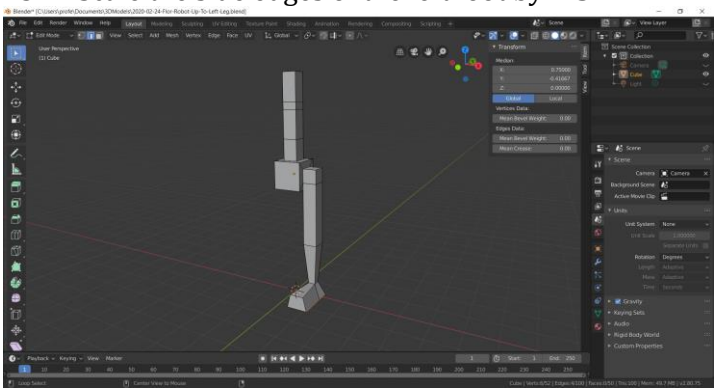
This is the **left foot**.

14. Scale the ankle edge loop by **0.5**.



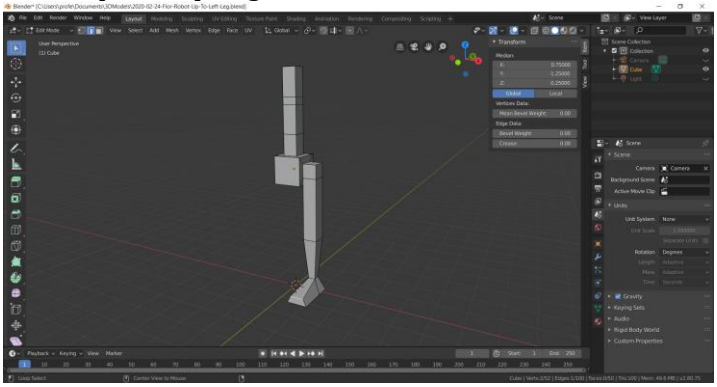
This is the finished ankle.

15. X-Scale the side edges of the left foot by **1.5**.



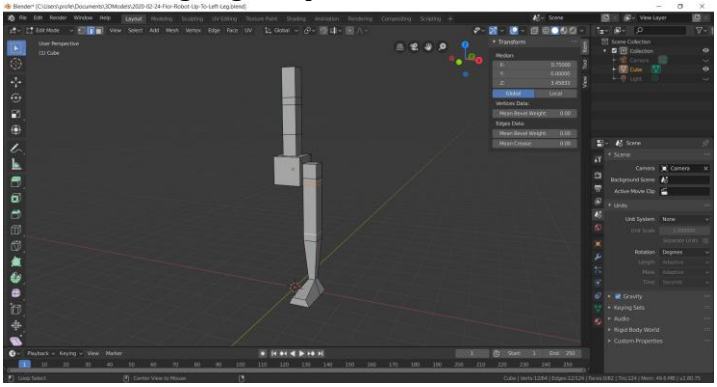
This is the finished foot bottom.

16. Drop the top edge of the foot to z:**0.25**.



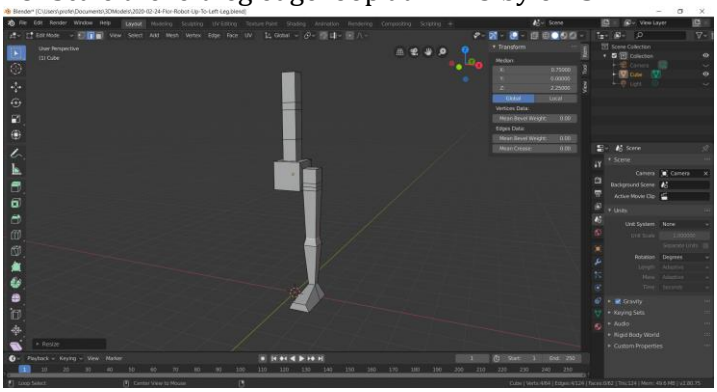
The left foot is finished!

17. Add left leg edge loops at z:**2.25**, **4.00**, and **4.125**



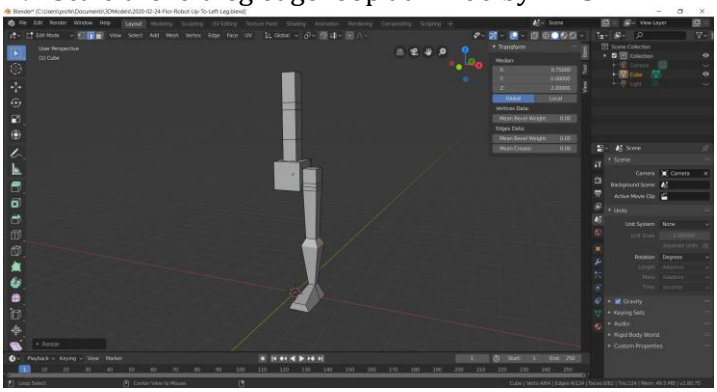
This prepares us for tapering parts of the leg.

18. Scale the left leg edge loop at z:2.25 by **0.75**.



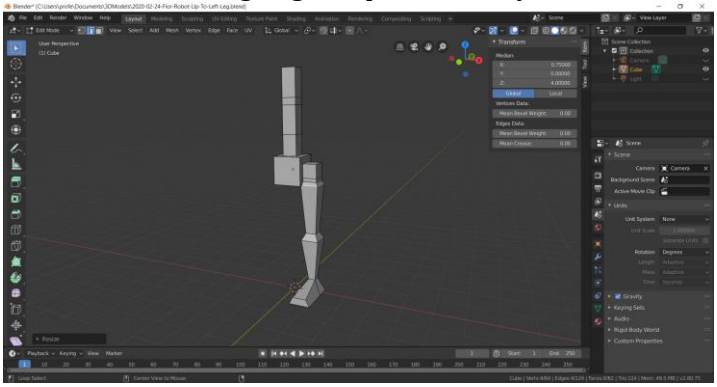
I guess you can call this the top of the left boot.

19. Scale the left leg edge loop at z:2.00 by **1.25**.



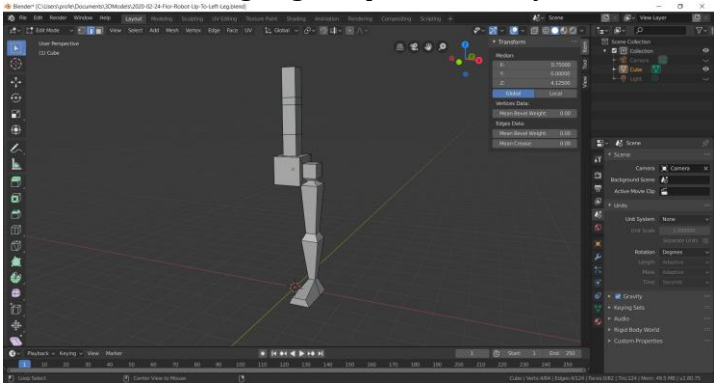
This completes the lower left leg.

20. Scale the left leg edge loop at z:4.00 by **1.25**.



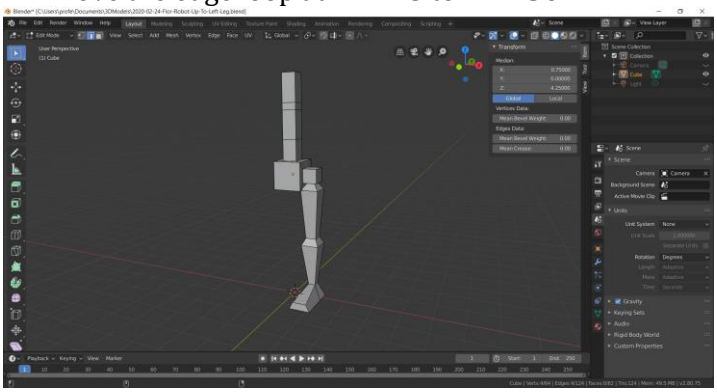
The upper left leg is almost finished.

21. Scale the left leg edge loop at z:4.125 by **0.5**.



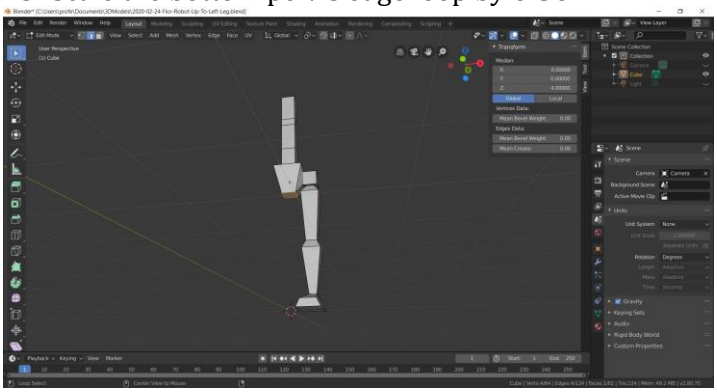
Almost done. Move that edge loop into the left hip joint.

22. Move the edge loop at z:4.125 to z:**4.250**.



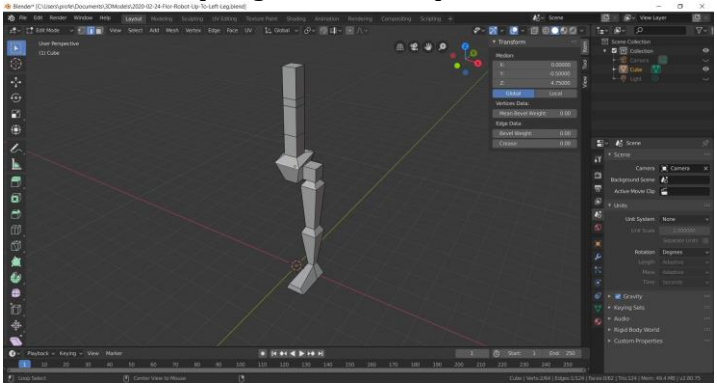
This completes the left leg.

23. Scale the bottom pelvis edge loop by **0.50**.



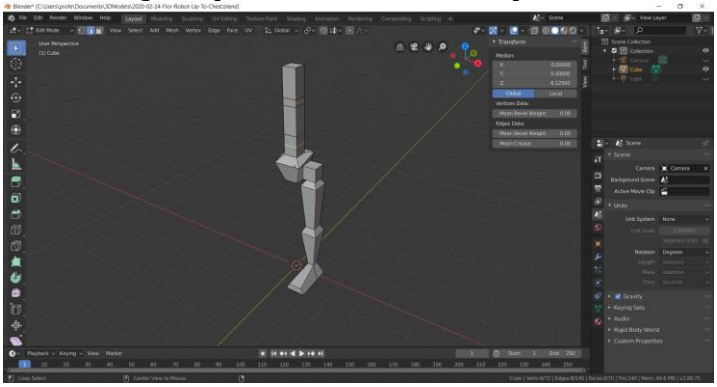
This creates spaces between the pelvis and leg.

24. Move the top edge of the front pelvis to z:**4.75**.



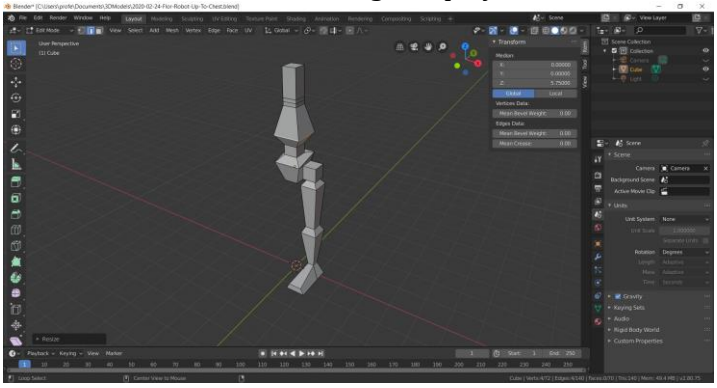
This creates a more realistic looking slanted pelvis.

25. Add edge loops to the middle of the spine and neck.



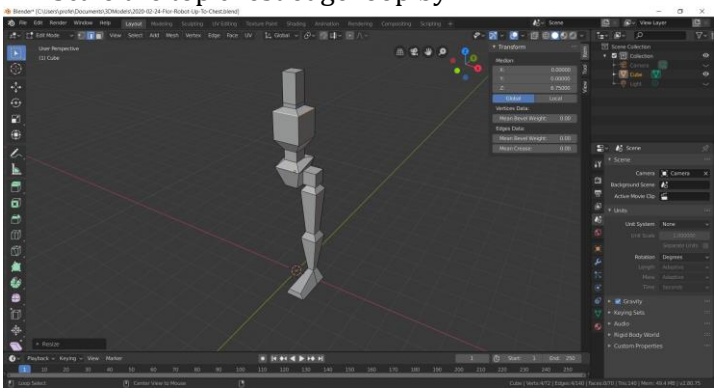
These edge loops are at z:5.375 & z:6.875

26. Scale the bottom chest edge loop by **2**.



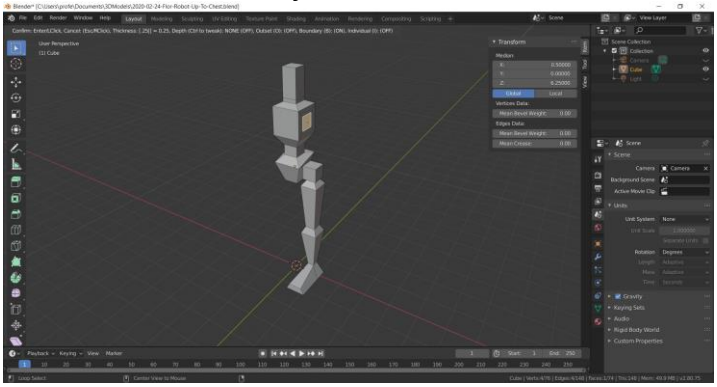
Chest is almost done.

27. Scale the top chest edge loop by **2**.



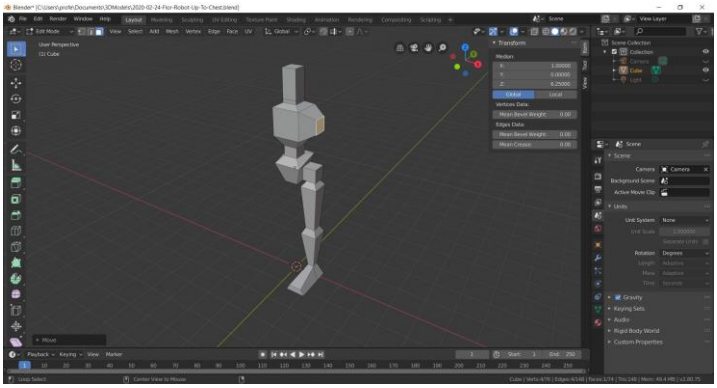
Now, it looks more like a chest!

28. Inset the +x chest by **0.25**.



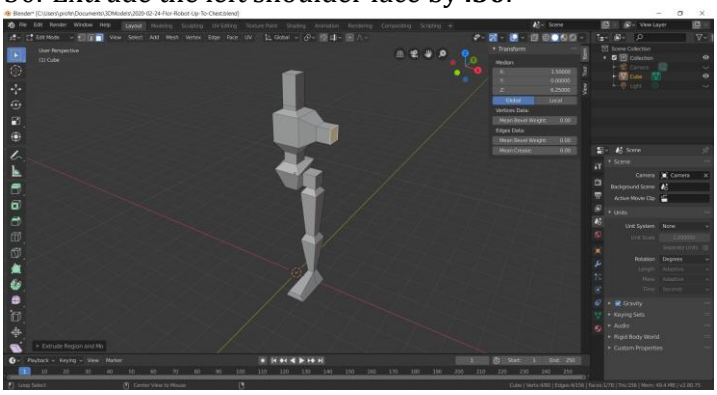
This is the start of the left shoulder.

29. Move this inset to z:**1.0**.



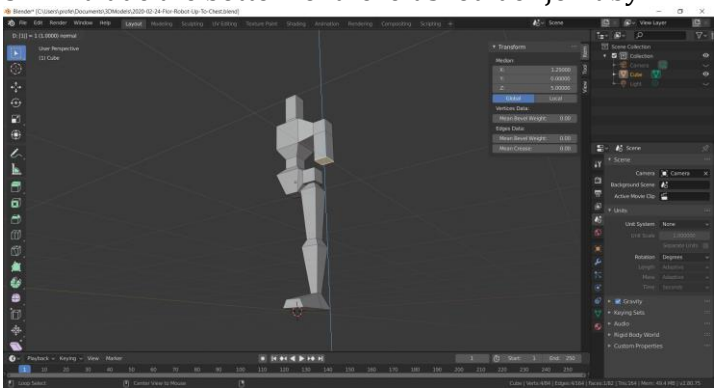
This is the shoulder without the shoulder joint.

30. Extrude the left shoulder face by **.50**.



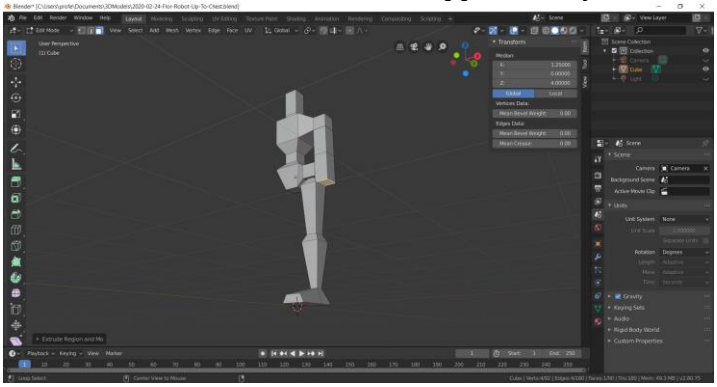
This is the **left shoulder joint**.

31. Extrude the bottom of the left shoulder joint by **1**.



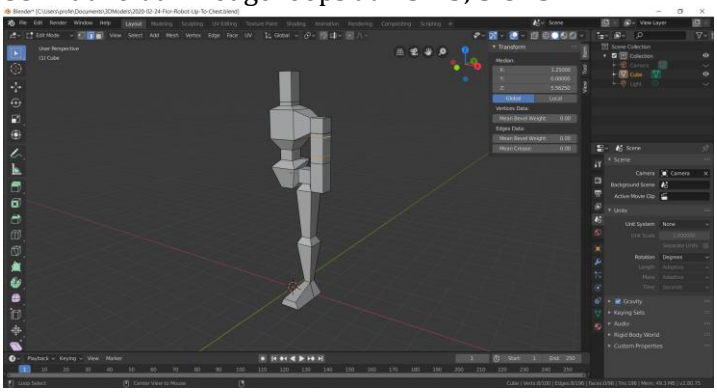
This is the **left upper arm**.

32. Extrude the bottom of the left upper arm by **1**.



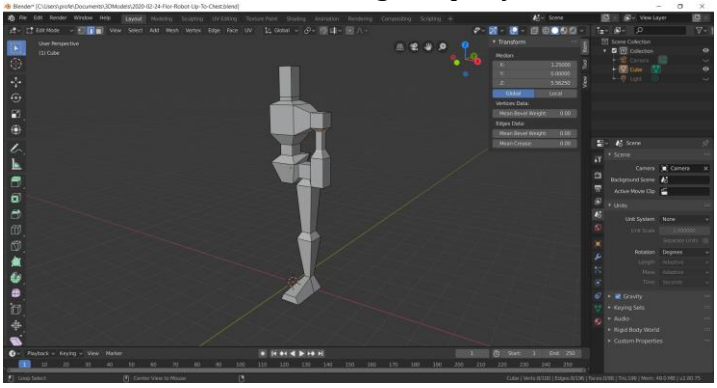
This is the **left lower arm**.

33. Add left arm edge loops at z:**5.25**, **5.875**.



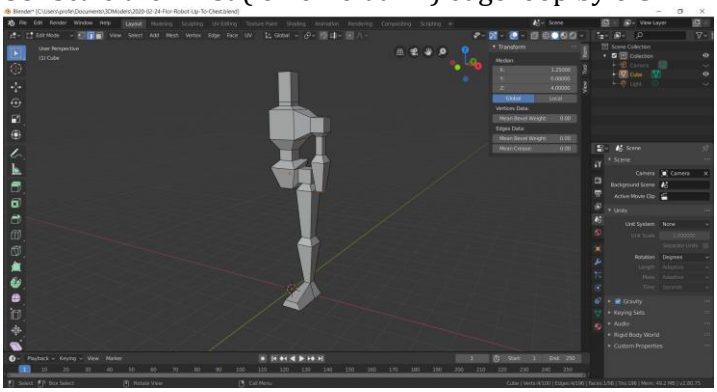
We'll use these edge loops to taper the arm.

34. Scale both of the above edge loops by **0.50**.



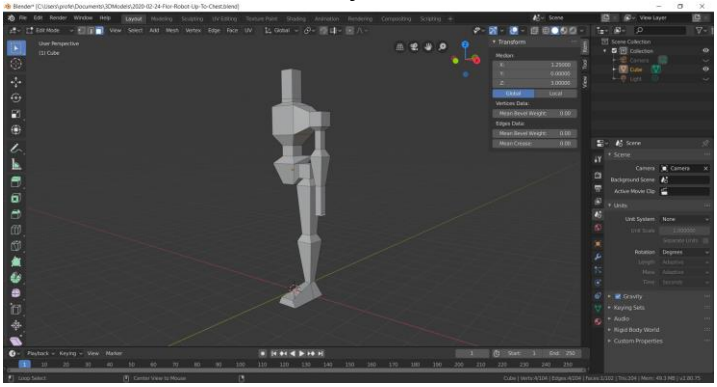
This completes the left arm except for the hand.

35. Scale the wrist (lower left arm) edge loop by **0.5**.



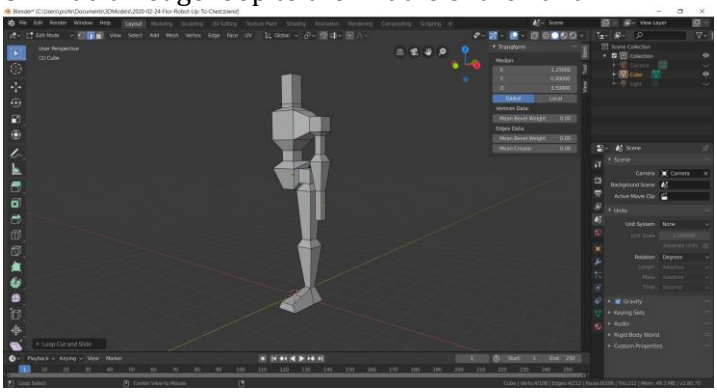
This prepares the creation of the hand.

36. Extrude the wrist face by **1**.



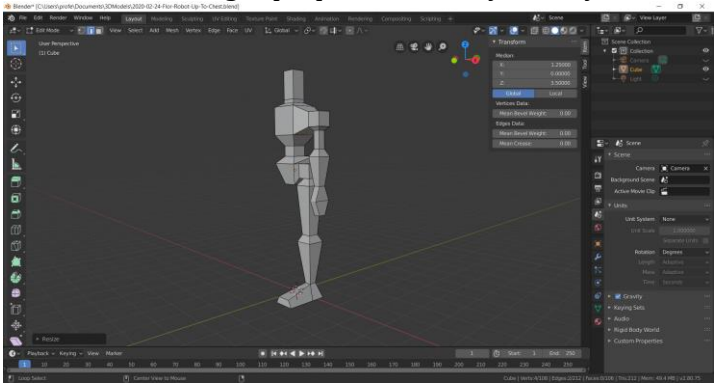
This is the start of the **hand**.

37. Add an edge loop to the middle of the hand.



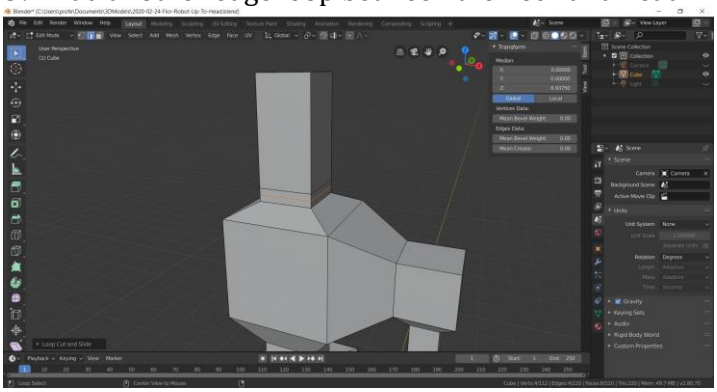
This edge loop will allow us to expand a simple hand.

38. Y-scale the edges perpendicular to y-axis by **2.5**.



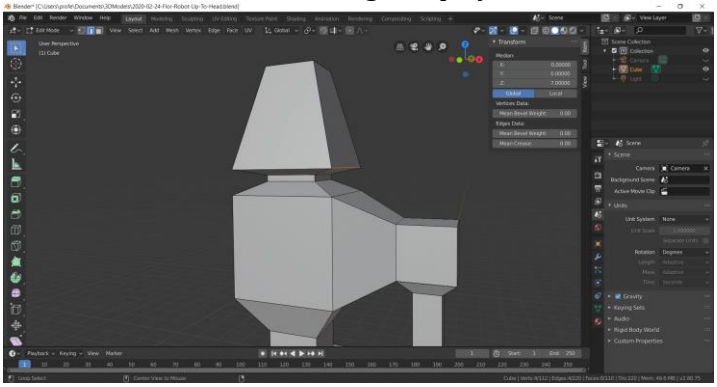
You are done with the hand!

39. Add another edge loop between the neck and head.



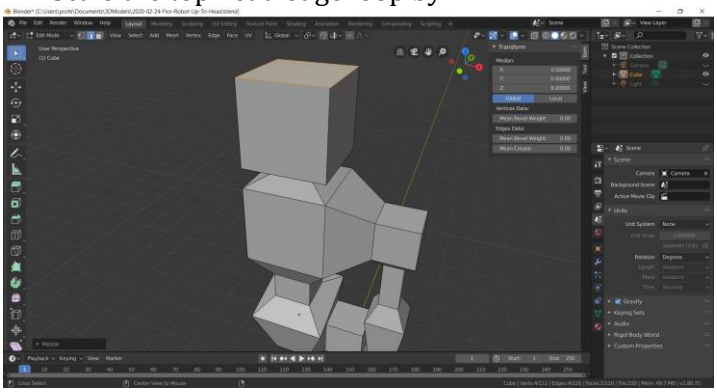
The loop keeps the neck thin when we stretch the head.

40. Scale the bottom head edge loop by **2**.



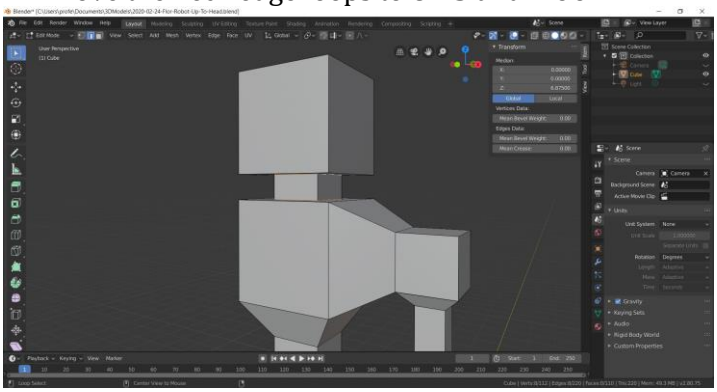
(This could be a cool enemy robot actually)

41. Scale the top head edge loop by **2**.



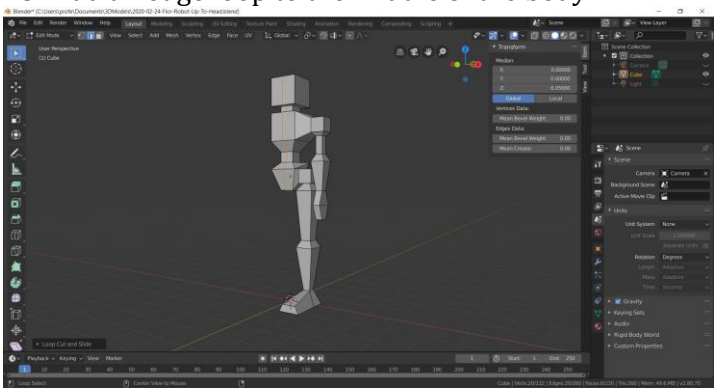
This is a block head, which we'll shape to look better.

42. Move the neck edge loops to **6.75** and **7.00**.



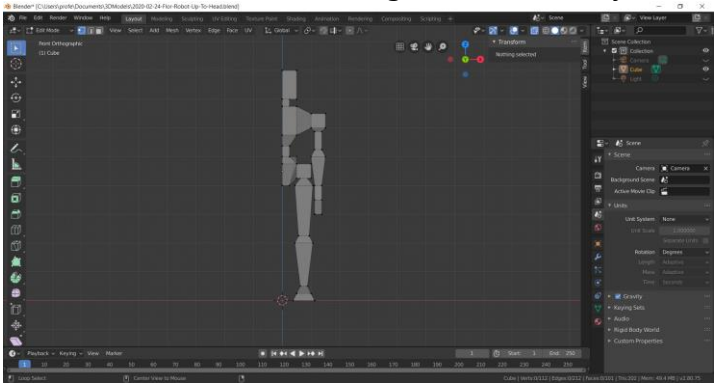
This completes the neck. Could make it skinnier.

43. Add an edge loop to the middle of the body.



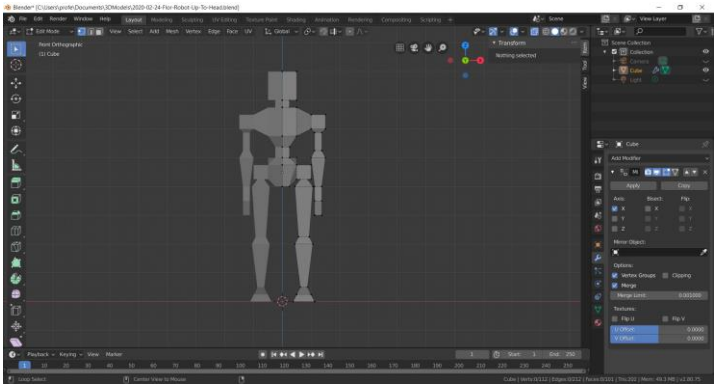
We'll use a mirror modifier to complete the body.

44. Delete all vertices on the right half of the body.



We can add a mirror modifier to complete the robot.

45. Add a mirror modifier.

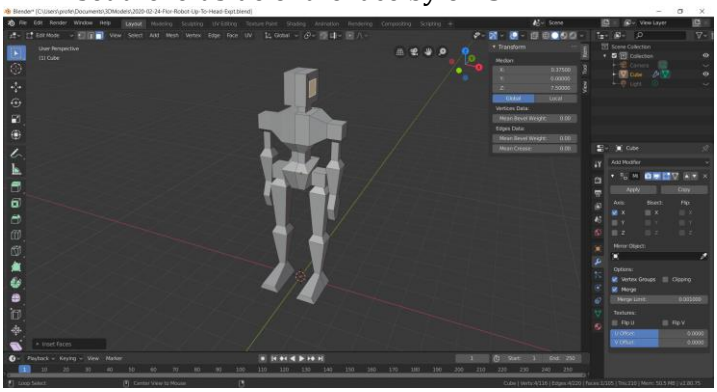


The last thing to do is to fix the head.

46. Move the left side of the face to x:**0.3750**.

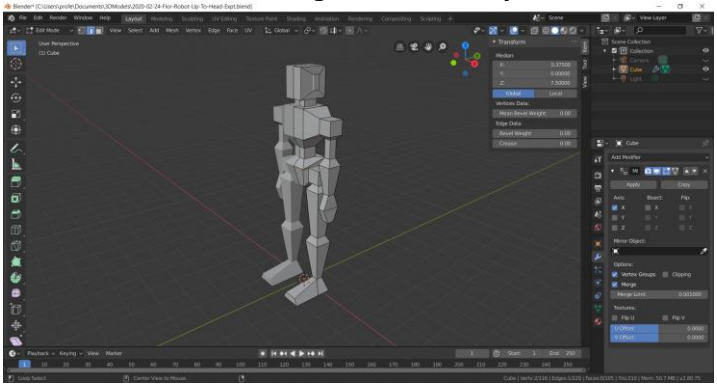
Now the head is not as blocky.

47. Inset the left side of the face by **0.25**.



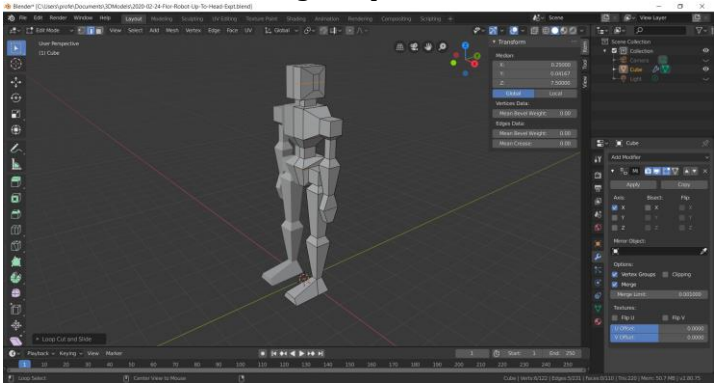
This represents the robot's **ear**.

48. Move the forward edge of the ear to y:**0**.



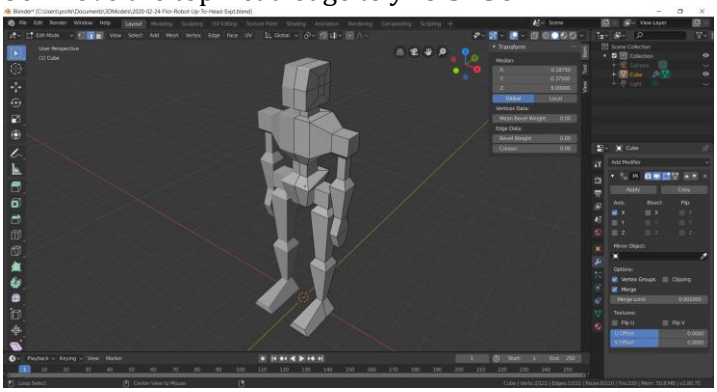
That completes the ear.

49. Add a horizontal edge loop to the head.



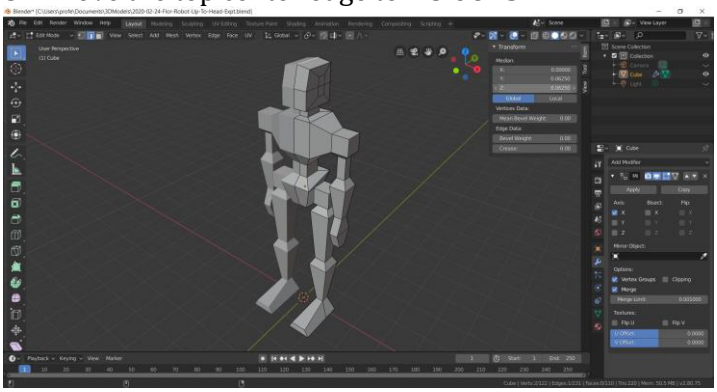
The horizontal edge loop lets us shape the head better.

50. Move the top-head edge to y:-**0.3750**.



This adds a kind of **forehead** to the head.

51. Move the top center edge to z:**8.0625**.

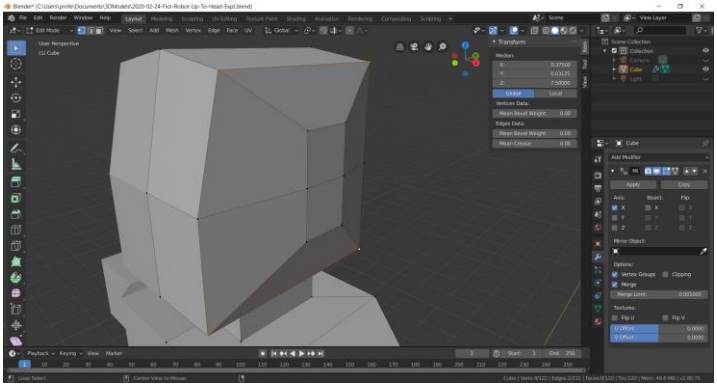


Now the head is not as flat.

52. Move the ears to x:**0.4375**.

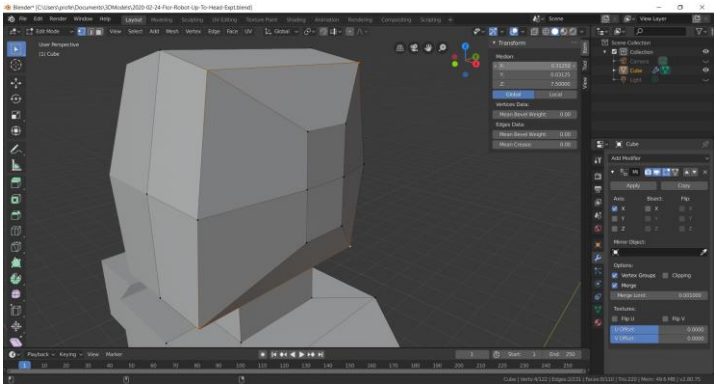
The head is still a little too boxy.

53. Select the four corner vertices on the left side head.



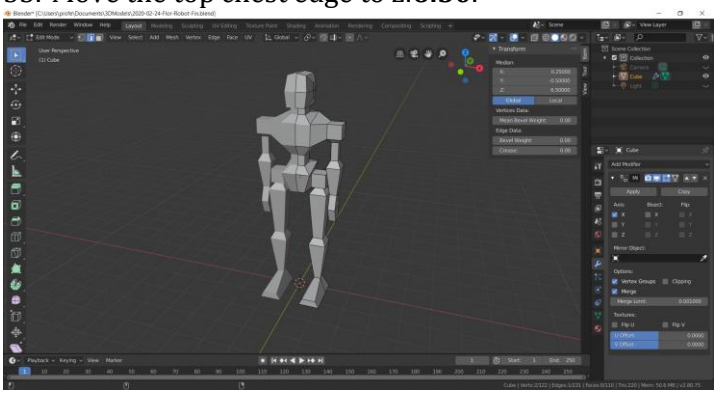
Next, we'll move them in a bit.

54. Move these vertices to x:**0.3125**.



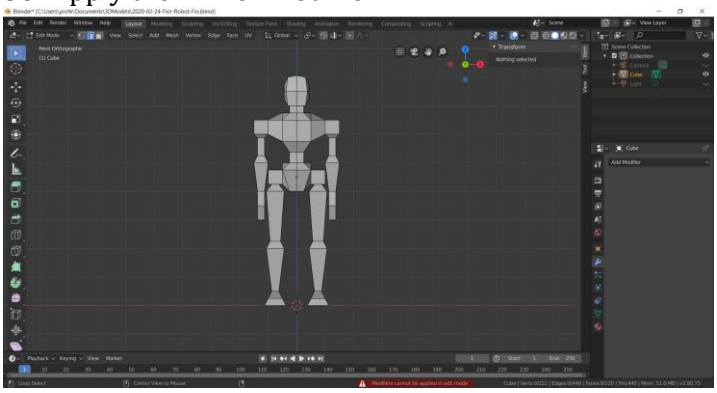
The head looks less flat now.

55. Move the top chest edge to z:**6.50**.



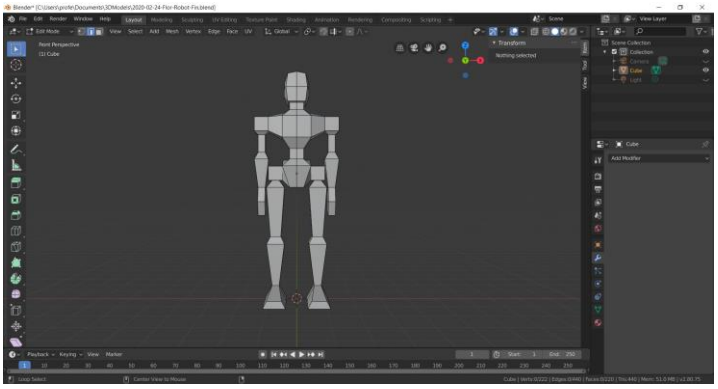
I forgot this step. Should have been done earlier!

56. Apply the mirror modifier.



You are done. Your robot should look as follows:

FRONT PERSPECTIVE



3/4 PERSPECTIVE