

Policeman low poly character creation – notes: -

1] Edit >> Preferences >> Enable “Automirror”

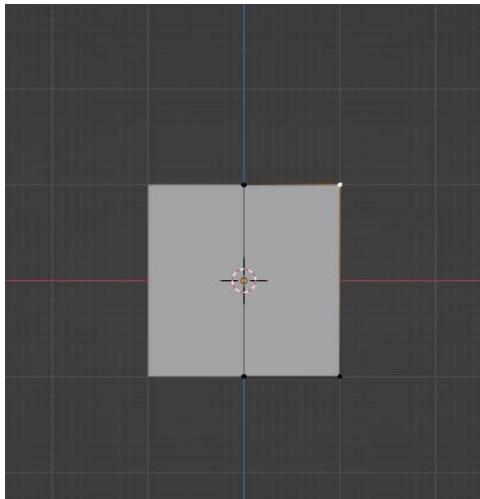
Create a mirror around the green Y axis.

Press N for the tray slide out & go to the “Edit” tab

Open Automirror, make sure X axis is selected and hit the “automirror” button.

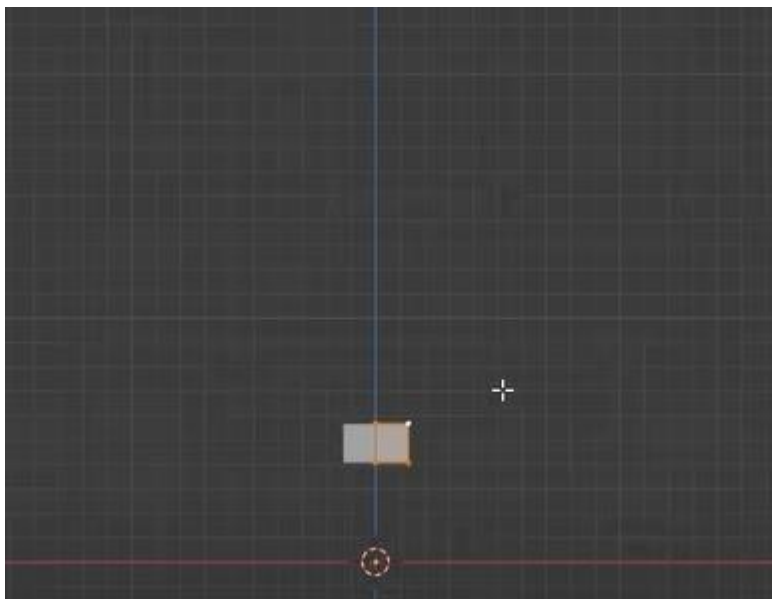
Now in Edit mode alter cube to show mirroring on and undo.

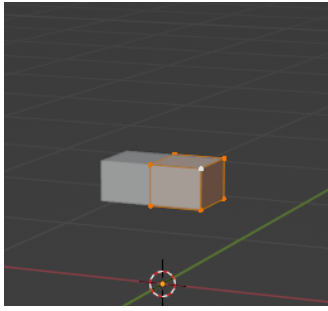
Press Numpad “1” for front view.



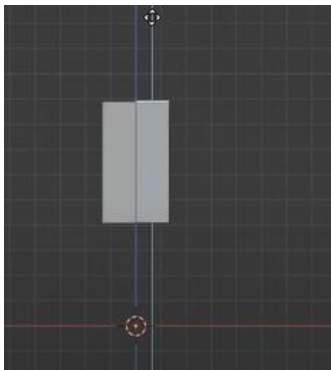
This first part is the “pelvis” area of the character, go into edit mode and use G and S scaling to position it about here (use the grid to judge).

Each big square is 1m squared in blender.





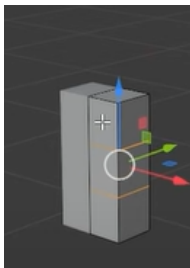
In Edit mode, go to Face Select - press shift + space and G to add a move to tool and pull this pelvis up into a full torso now like this : - [you can also just select the tool in edit tools on right]



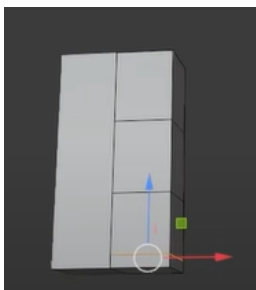
[About 1 small box away from first 1m box end]

We need to divide this torso into 3 equal parts – use loop tool CTRL + R and mouse wheel to do this:

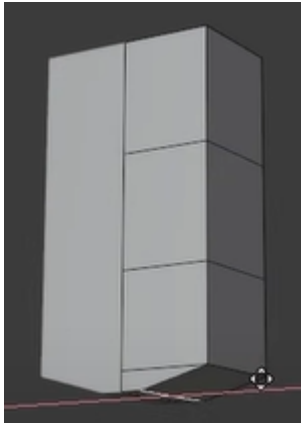
-



Need one more loop cut in the bottom third and moved down to near bottom to make a narrow cut:-

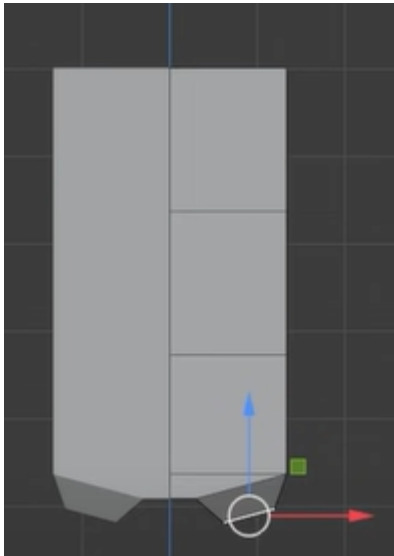


Switch to Edge select select the bottom edge and move it inwards to make the area for legs to grow out of: -

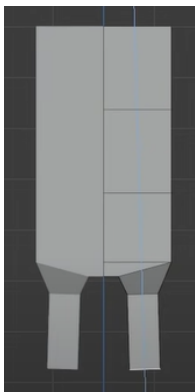


LEGS: -

Go to face select, select the bottom face, E to Extrude and scale down at the end to get this, including switching to front view: -



Use R to rotate the face flat in this view and G to move it more under the body: -

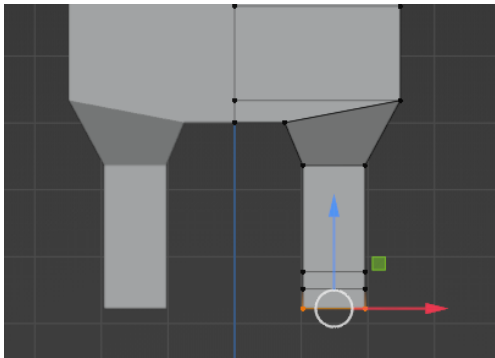


Also using E to extrude down the leg to the knee

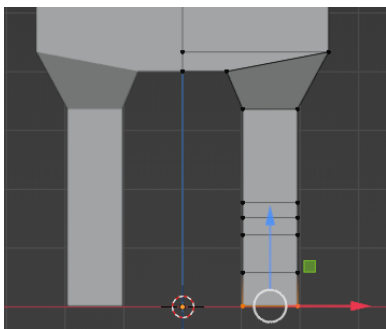
A Pro-Tip to make sure the end of the leg so far is exactly flat: -

S + Z + 0 = Scale, Z-axis only, 0

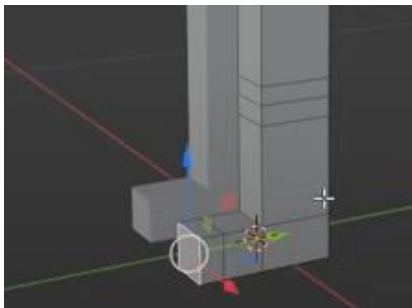
In front view “1” - 2 small extrudes to make the knee – doing it this way makes it easier when rigging for blender to bend the limb: -



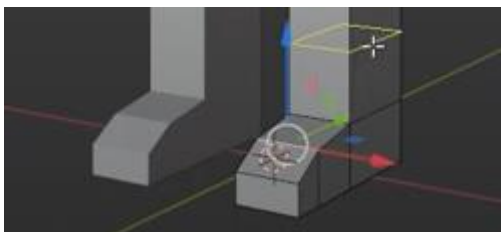
Extrude again down to the angle and then extrude to the floor.



Select the front face and extrude out the foot in two blocks: -

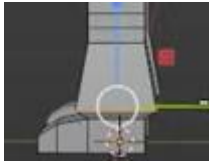


Use edge select and drop the top 2 edges to approximate a foot shape.



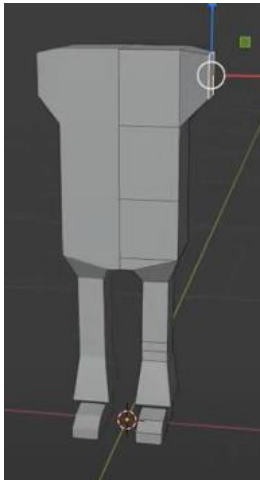
A Flare at the end of the legs to suggest pants: -

Place another loop cut above the ankle (Ctrl + R) and move it down to just above angle then use S to scale it out : -



ARMS:

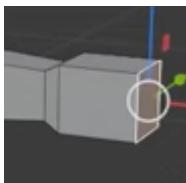
Extrude out the top face, scale it down and move it up with move tool to a shape like this, this is the shoulder done: -



Go to front view & Use extrude and scale to make the arm, don't scale the elbow joint: just top arm and forearm: -

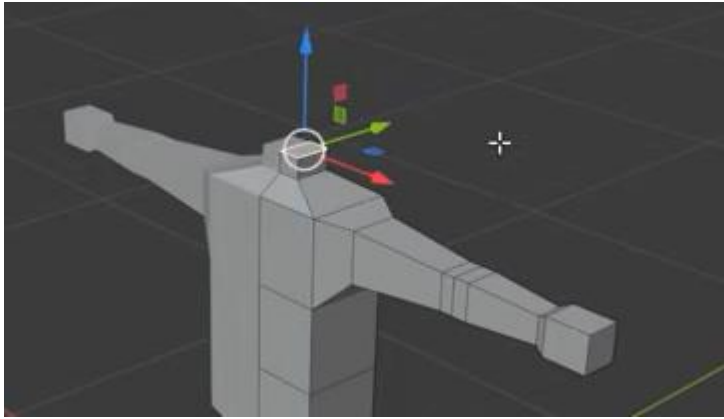


Simple low poly "block" hands: -



Extrude, Scale up, Extrude

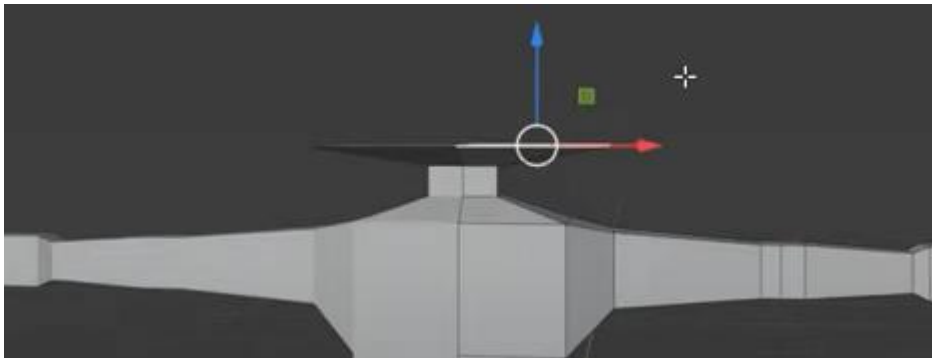
Collar and neck – Extrude, Scale in and push the right handside in to make narrow using move tool:-



Extrude up again a small bit then scale out to start the head,

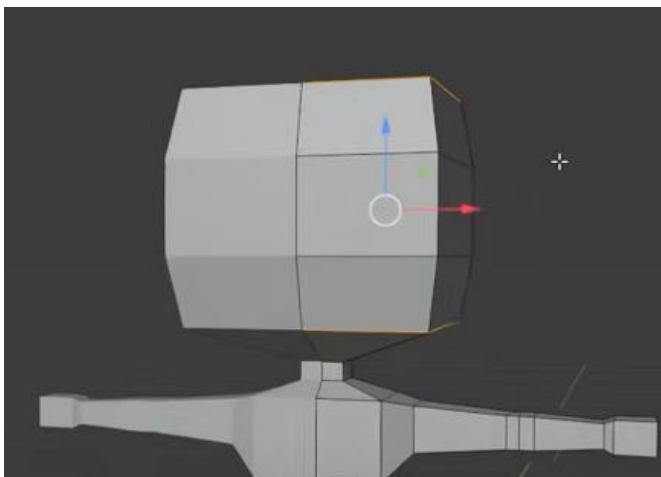
After the initial scale use the move tool to widen left and right, because of mirror this will work

But must make sure in the mirror modifier “Clipping” is ticked

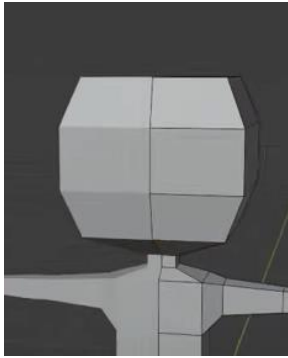


Extrude up to make a large cartoonish head – make it big as we will be dividing in 3 and scaling in top and bottom third in next step – loop cut to divide in 3 -

Select the bottom 3 edges and the top 3 edges and scale in to make a head like this: -

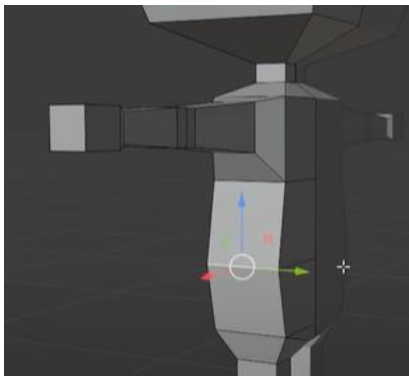


Can also push in a little bit right to left with the red arrow tool-

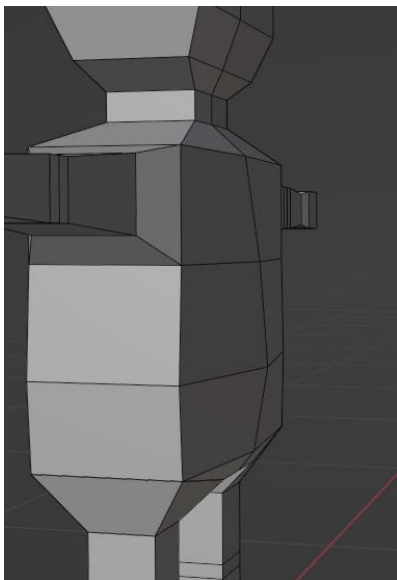


Select the middle belly line and pull it out and push back top and bottom a little to suggest a belly

Pull out the side lines a little too: -



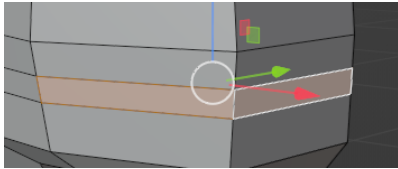
Use similar to make an arched back: -



BELT:

Put in two neighbouring loop cuts in the bottom 3rd

To select whole belt at once, use ALT + click on the corner edge WHILST IN FACE MODE.



To get belt to come out naturally do special extrude not just normal “E”

Hit ALT+E and select “Extrude along normals”



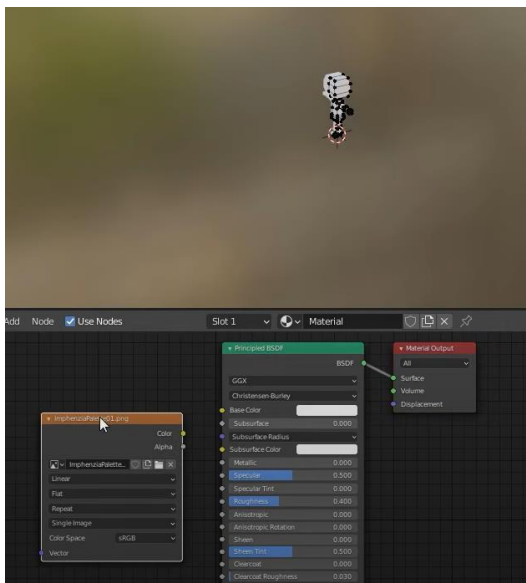
[EDIT – parking this and using materials instead - Colouring using Palette Png colour palette: -

Using the ImphenziaPalette01.png file ..

[in 2022 / blender dir]

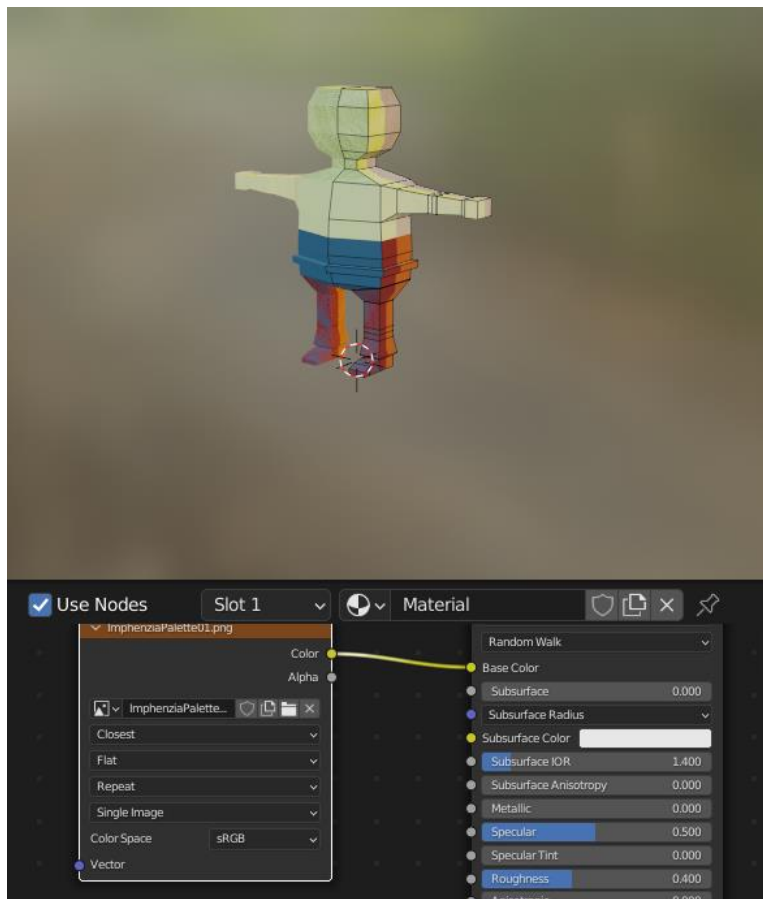
This method is much easier and quicker than traditional blender texture mapping which requires surfaces unwrapped etc and is fairly complicated.

Go to the shading tab and drag and drop the file onto the node layout section : -



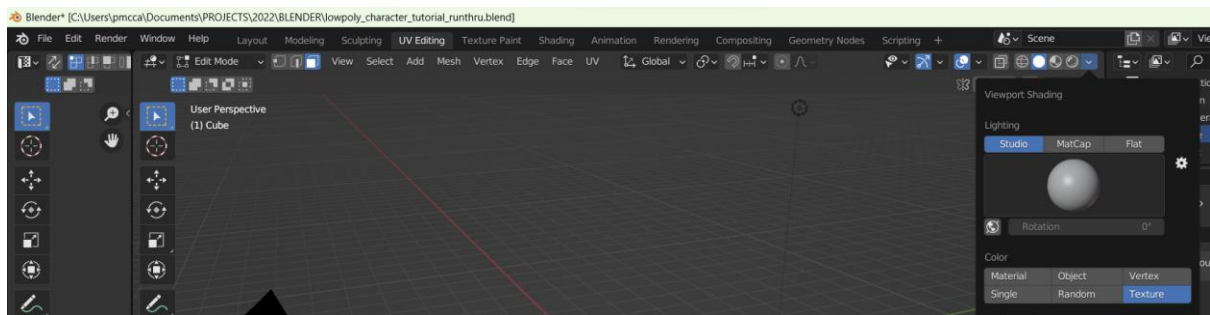
Connect “Color” to “Base Colour” – will paint all the colors onto our character,

Change from “Linear” to “Closest” – should unblur but still multi-coloured.

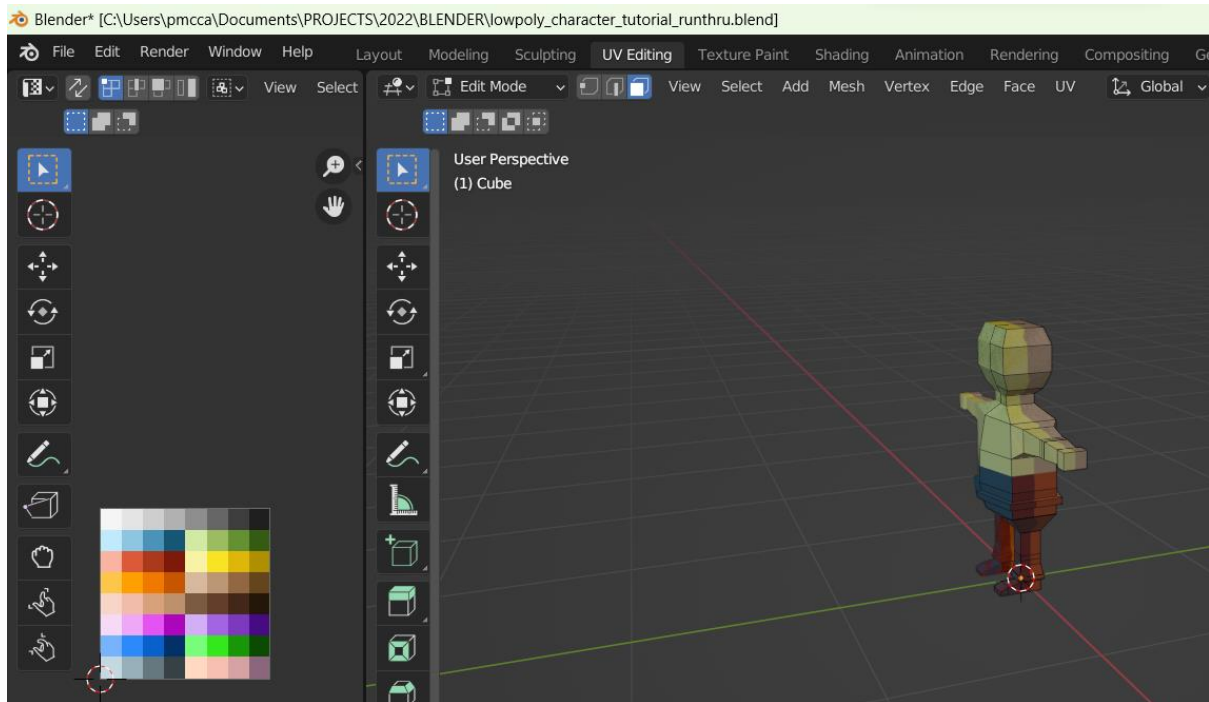


switch to “UV editing”, this has a split view -

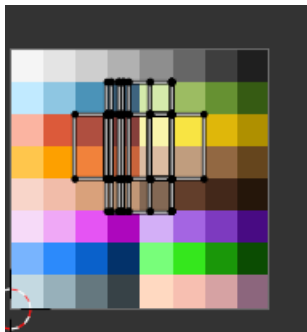
In the top right dropdown – select “Texture”



The Palette file will be on the left if you zoom in.



Press A to select All and you should see a colour map grid appear on the left: -



Scale this down using “S” in normal way until the whole shape is small enough to fit in a single color and move it to a flesh tone, just like objects by using “G”.

You can then continue in a similar manner to color all the rest by only selecting certain faces

Ctrl and “+” on numpad is also useful to “Grow Selection” to select all the shirt for example

Select the belt and color it black.

Handiest way to select pants for colouring – Alt + Z to switch to xray – numpad 1 for front view and select with a box.

Dark blue pants.

Black shoes.]]]

To colour by using material assignment [as opposed to palette method above, works better in unity]: -

Enter Edit mode.

1 – Make a “skin tone” material and apply to whole object : -

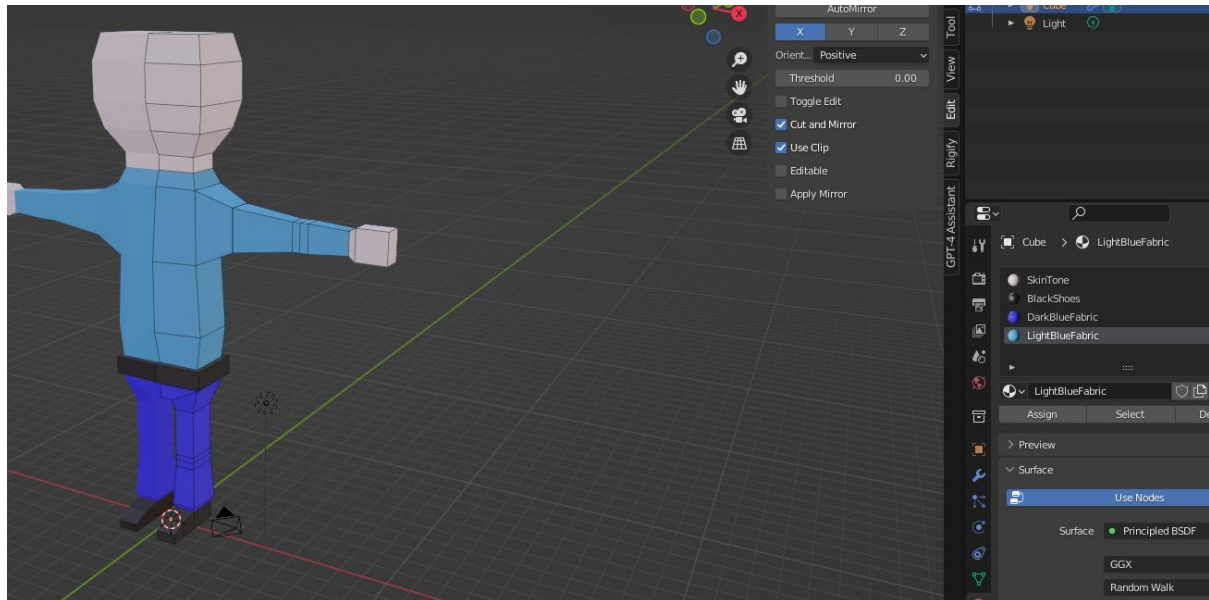
We can give a bit of red subsurface colour

Select All – and click “Assign”

To colour in parts – just select those faces, build a new material and click “Assign”

Can experiment with material value settings like specular, metallic etc

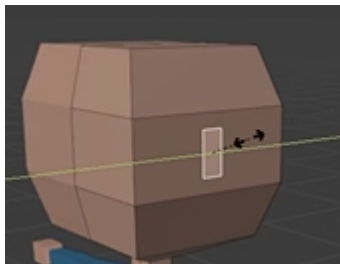
Black shoes and belt - dark blue pants – light blue shirt.



EARS:

Shift + D on face at side of head, but leave in same place, then scale down

Scale down a bit, then press S + Y to only scale on y-axis and make a narrow ear rectangle shape: -



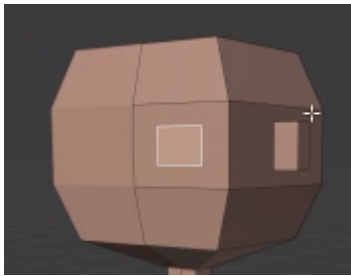
And extrude it out for a really simple low-poly ear.



Eye:

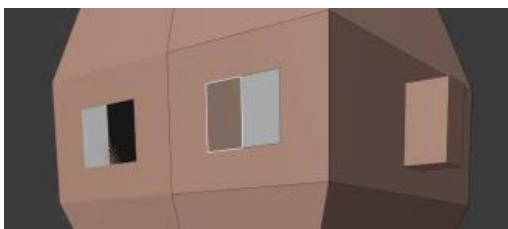
Similar Shift + D duplicate the front face, but snap it back [right click]

We scale the double front face to make the basic eye face but – you may need to turn off “clipping” in the mirror modifier so you get two separate eyes.



Press G on the palette on the left and make this face white.

Easy eye – just loop cut vertically down the middle and make the left side black, [the mirror will now have black on right]



Looks faded and cross-hatched, because it is exactly flush with the face face – so easiest fix is select both eye faces and use E to extrude a small bit off the face: -

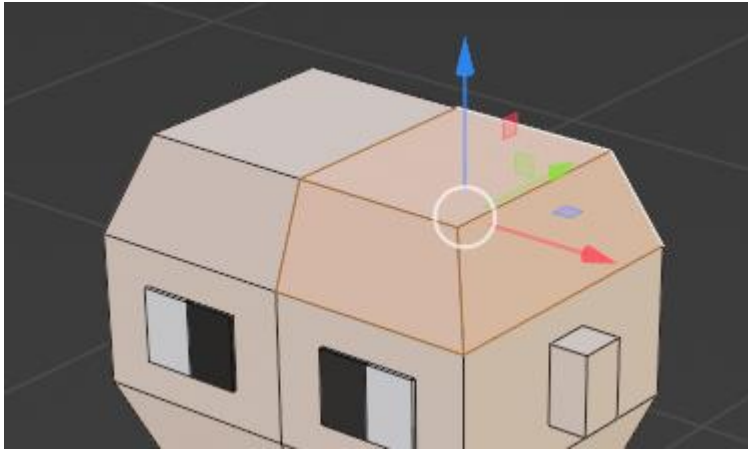


The finishes the policeman – rename the object from cube to “Policeman”

And let’s do the HAT:

HAT: -

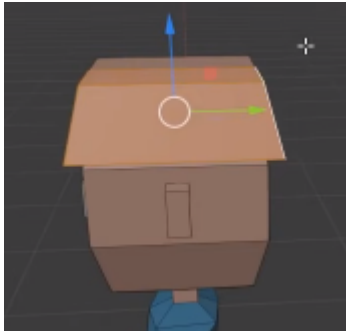
Select all faces on top of head: -



Turn “clipping” back on in mirror options,

Then use Shift+D to copy the faces

Scale it a bit bigger than the head and move it a bit higher: -

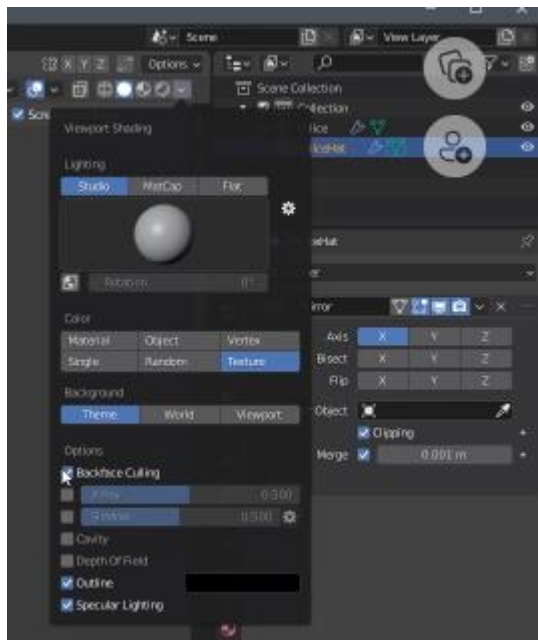


Press “P” to separate the selection out into its own object

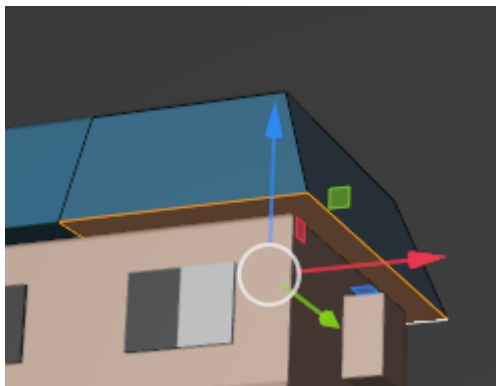
Rename it to “PoliceHat” [F2 shortcut]

Colour it same blue as the shirt.

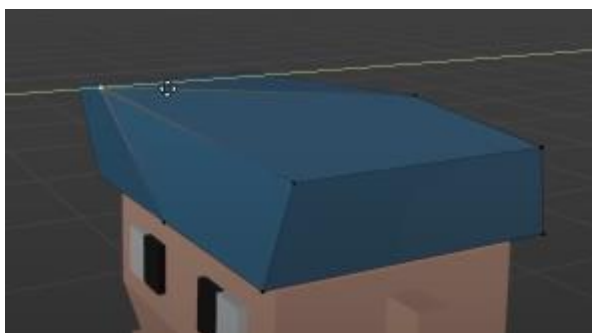
To close the hat so its not open underneath, turn this option on “backface culling”: -



Also select the 3 lower edges and press F to fill the gap with a new face:-

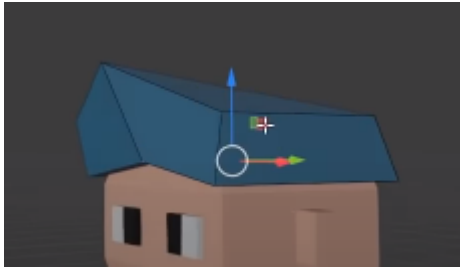


Shape the hat: -



And a bit of a slant at the back too.

Move the middle face up a bit: -



To make the peak – loop cut



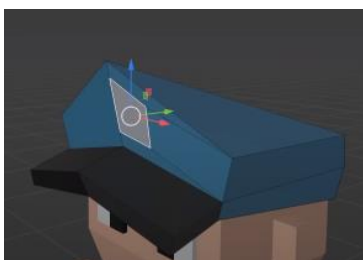
Select the front face of the cap, extrude it out and colour it black: -



Final piece, the badge – I inset and B for Boundary to make it touch in the middle: -



Select the right most edge and press G x 2 to activate “sliding” and slide to near the middle.



And give him an orange or gold badge