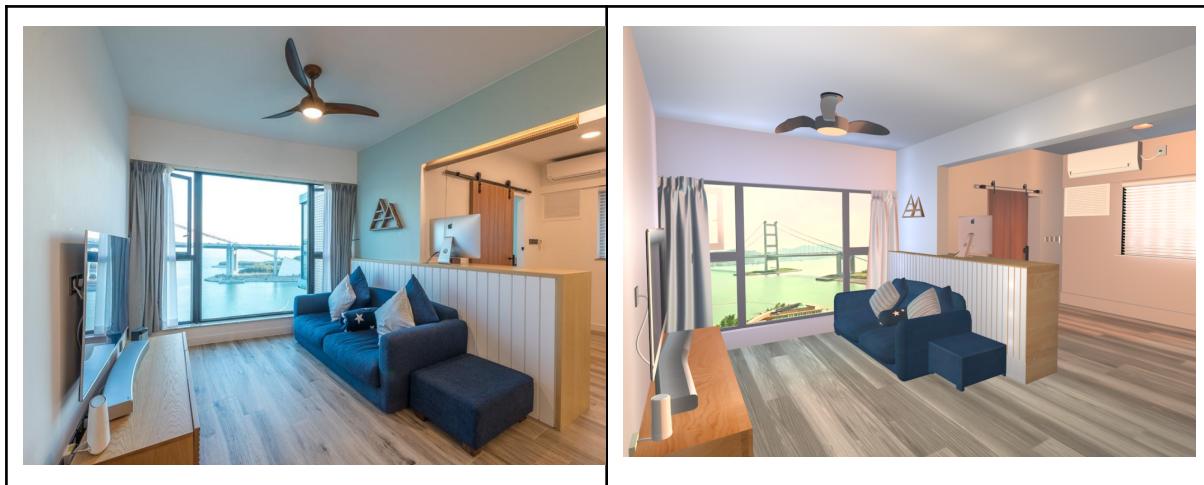


EIE3103 Computer Animation Assignment 1
LEUNG WUI HANG 20028324D



<https://qanvast.com/hk/photos/%E7%8F%80%E9%BA%97%E7%81%A3-living-room-406840>

Source Image



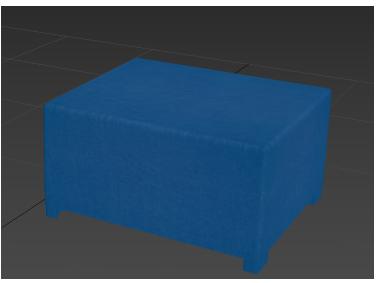
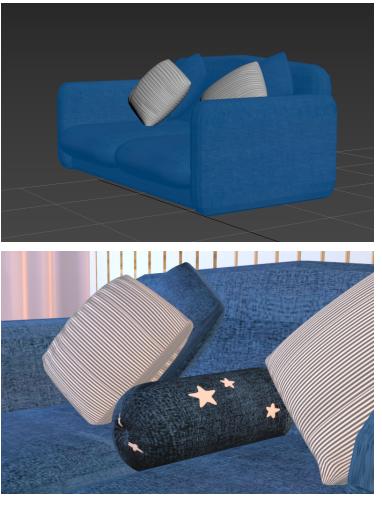
Render Image:

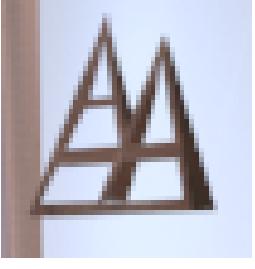
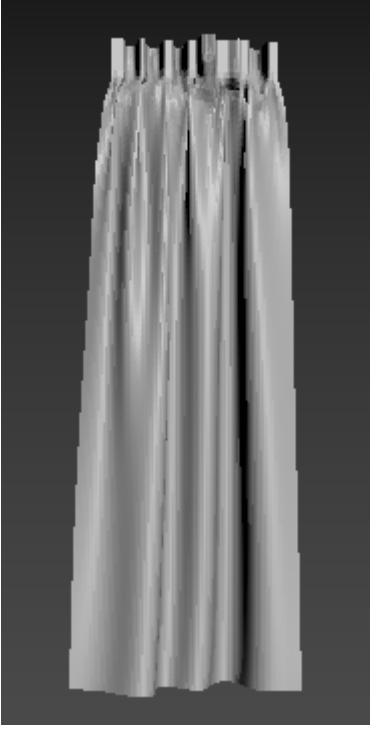


1. Modeling

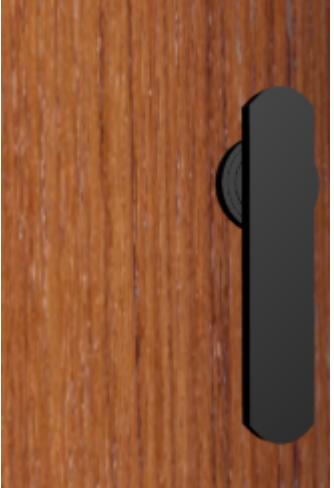
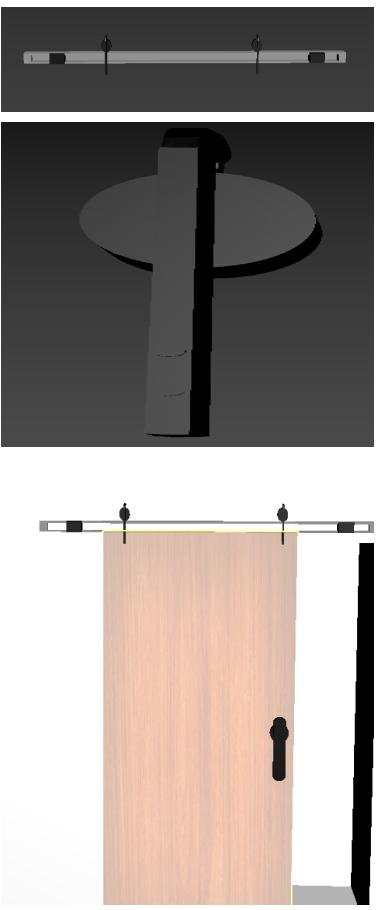
If not mentioned, All use the “convert to editable poly” modifier so that they can have further action.

Name of the object	Modeling skills applied	Screen capture
Cabinets cabinet1 cabinet2 cabinet3	It refers to lab1, selecting the edges and “connect” them for segmentation. Then select the polygon location “Inset” for the three cabinets, detach the select polygon, extrude the original body. isolated to modify the cabinet, applied “shell” modifier. “connect” it and select the edge to backward = like a plank.	

little chair	<p>create a box and select the top and side edge to chamfer it. Also connect the bottom then extrude the selected polygon to create a chair foot.</p>	
sofa bottom sofa left sofa right sofa back sit cushion left sit cushion right Pillow1 Pillow2 Pillow3 Pillow4 Cylinder pillow	<p>create chamfer box and box then get the layout.</p> <p>Then create a box add “turbosmooth” and “clothes” modifier, setting preset to cotton and simulate local. After that, I move some edge (like move backward and upward) a little bit to have a bump effect.</p> <p>Cylinder pillow create a Cylinder first and adjust the pivot. select the top and bottom polygon to detach. Then add “clothes” modifier, group and node two polygons. simulate local and slowly edit that two polygons size.</p>	
Mac PC apple logo1 apple logo2 wire1-4	<p>create a box and proboboolen subtraction = monitor. Chamfer backward and connect the polygon, select the middle polygon extrude and rotate, repeat the step to create the support. After that proboboolen subtraction a Cylinder to create a hole.</p> <p>Apple logo was built by drawing a curve following with a real apple logo image, then extrude it a little bit.</p> <p>drawing a line to create wire and modify the value in “rendering” so bring some width and thickness by “enable in render”, “enable in viewport”</p>	

Pyramid	<p>create Pyramid object and proboolean to create a hollow Pyramid, connect the edge and bridge two polygon to create horizontal position of item placement. Shift move to create a copy and proboolean union two objecst.</p>	
fan light fan blade fan blade2 fan blade3	<p>create a Cylinder, select a polygon bevel it, then select edge chamfer. select polygon to inset and extrude negative, inset and extrude positive. select a polygon to bevel it, then select edge chamfer.</p> <p>For fan blade, create an ellipse and add FFD3x3x3 modifier, select the vertex and modify this size. Then extrude it. Add edit poly to change the size fit to environment.</p>	
curtain left curtain right	<p>first create a plane then create a box at the top(convert to edit poly), plane add clothes modifier. Select plane as cloth and box as collision object. Add key frame and scale down the box. Click Simulate, finally add turbosmooth modifier.</p>	

Air cleaner	First create a Cylinder, add poly edit modifier. Select the top polygon to inset and extrude down. Then select the edge to connect it. More edges can let me select the bottom part and bevel and chamfer, so bottom part look bigger than other part. Finally add turbosmooth modifier.	
SoundBar	Create a box, add edit poly modifier. select the edge and connect it to add one more edge in the middle. select that edge can use 'W' move it backward little bit. select the edge and chamfer it, make it more smooth. Also select other side to chamfer, to make it smooth.	
TV	Create a box, add edit poly modifier. select front polygon and inset. Select side edge chamfer it. The black screen because I add that polygon to different ID, then I can add reflective material on it.	
windows	first create a box, add edit poly modifier. Then select front polygon extrude negative. select front four edge chamfer it so it bring more layer and not too straight feeling. Then connect it to cut a polygon area. select a polygon to extrude, inset and extrude again. a knob come out. Rotate whole object like this	

	<p>window is opened.</p> <p>Other windows is just a transparent windows, so I just add a plane and add material.</p>	
doorknob	<p>use Cylinder object repeat extrude and inset. then inset to make the circle smaller, extrude it and select top, bottom polygon to extrude = ‘handle’. Then I delete the middle circle polygon and bridge it again to make the “handle” middle part edge more vertical. Finally scale and move the ‘handle’ position.</p> <p>The door is just a box.</p>	
door track lock left door track lock right door track door track fix left door track fix right	<p>For the door track, create a box, create one more box for proboolean operation. Then it has hollow effect. For door track lock, it is just a box.</p> <p>For door track fix. create a thin cylinder first. connect to make mode edge. select some of the top face extrude. keep extrude and rotate to create another “reverse J” cylinder come from the original cylinder.</p> <p>I also create two more cylinder for the “screw”, union this two cylinders into my door track fix.</p>	

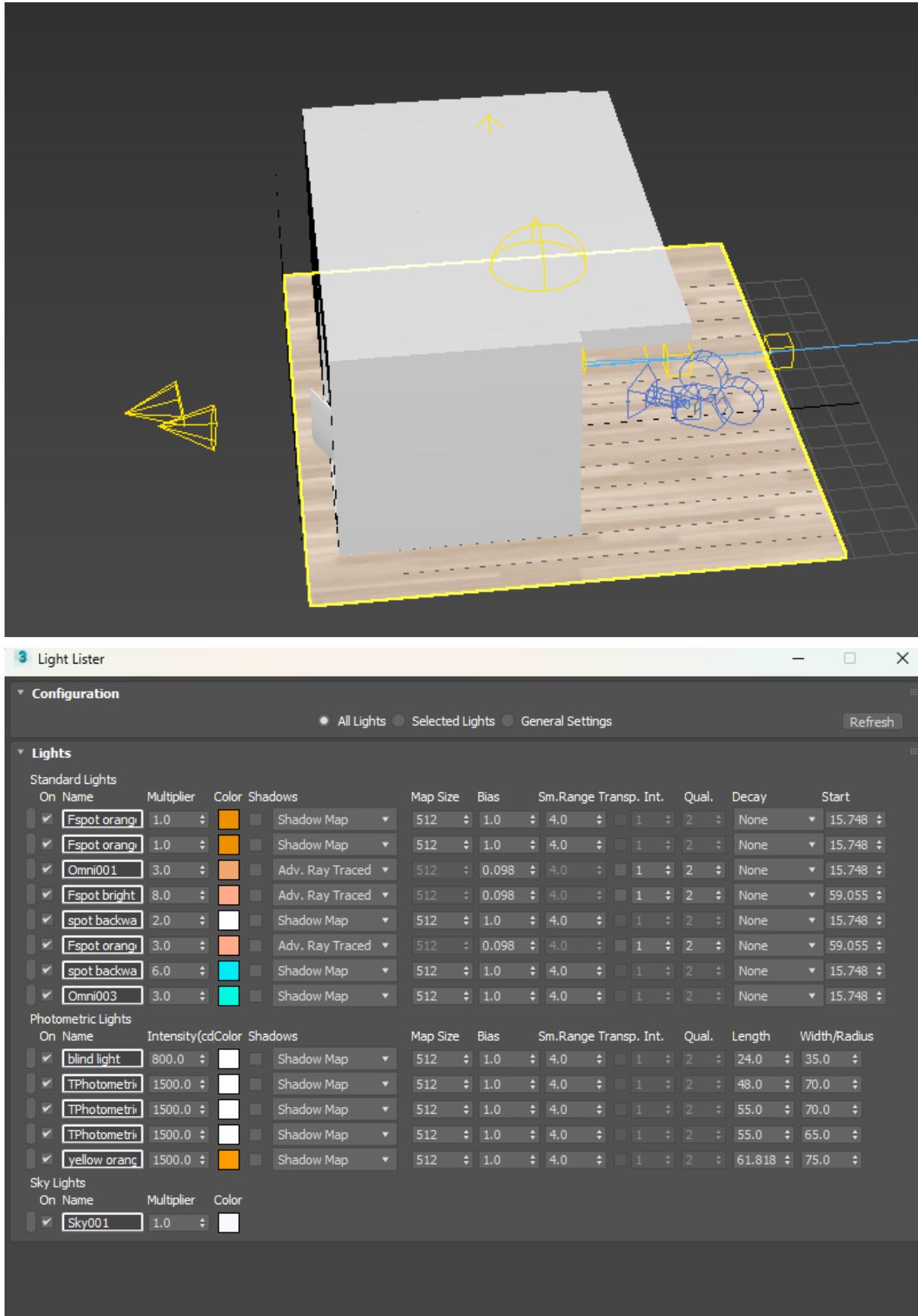
Louvers Window frame Louvers Window plane	<p>to create a frame, create a rectangle and tick the “enable in renderer” “enable in viewport”, change the thickness. For the plane, create a box and change to left view, rotate it. choose array for z axis, select all the planes converted to editable poly, attach them to one object.</p>	
blinds curtain top blinds curtain left blinds curtain right blinds curtain bottom blinds curtain plane	<p>to create a blinds curtain container. First create a cylinder and choose the edge to delete half of a cylinder. Add smooth modifier and extrude it. For the other part, just create a box. blinds curtain plane is created by one box and array it, rotate 80 angle.</p>	
light button light button002 light button003 air conditioner controller	<p>for the button, create a box first, then create one more box, rotate this little bit.</p> <p>for the air conditioner controller, create a box, connect to cut it two pieces. rotate bottom part and shrink two outer edge. chamfer whole object.</p>	
air conditional air conditional power air conditional power provider air conditional power wire	<p>drawing a square and converting it to an editable spline. Select left bottom vertex to “filet” and modify the vertex location to make a slash shape. Add an extrude modifier. Create a box like an air outlet, using boolean subtraction on that object.</p> <p>select a box and select the</p>	

	<p>front polygon to bevel.</p> <p>drawing a line and selecting all vertices to change “smooth”. Add an extrude modifier.</p> <p>drawing a line like “V” and tick “enable in renderer” “enable in viewport”, change the thickness. Change it to editable spline, select the bottom vertex and “filet” it to get a nice circle shape.</p>	
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For the wall, it is just a box, and I keep extruding it. Window frames use inset and extrude.

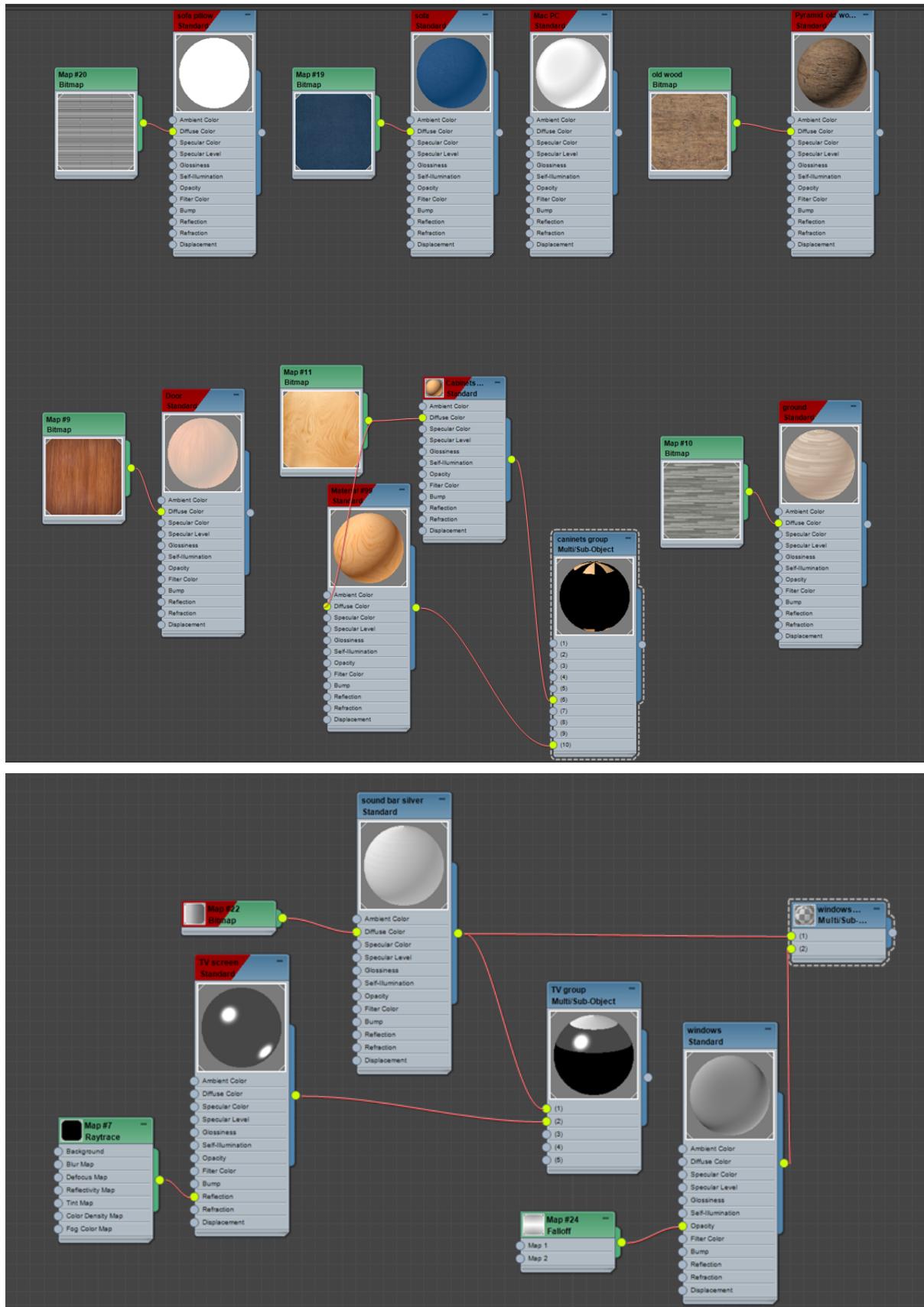
2. Lighting

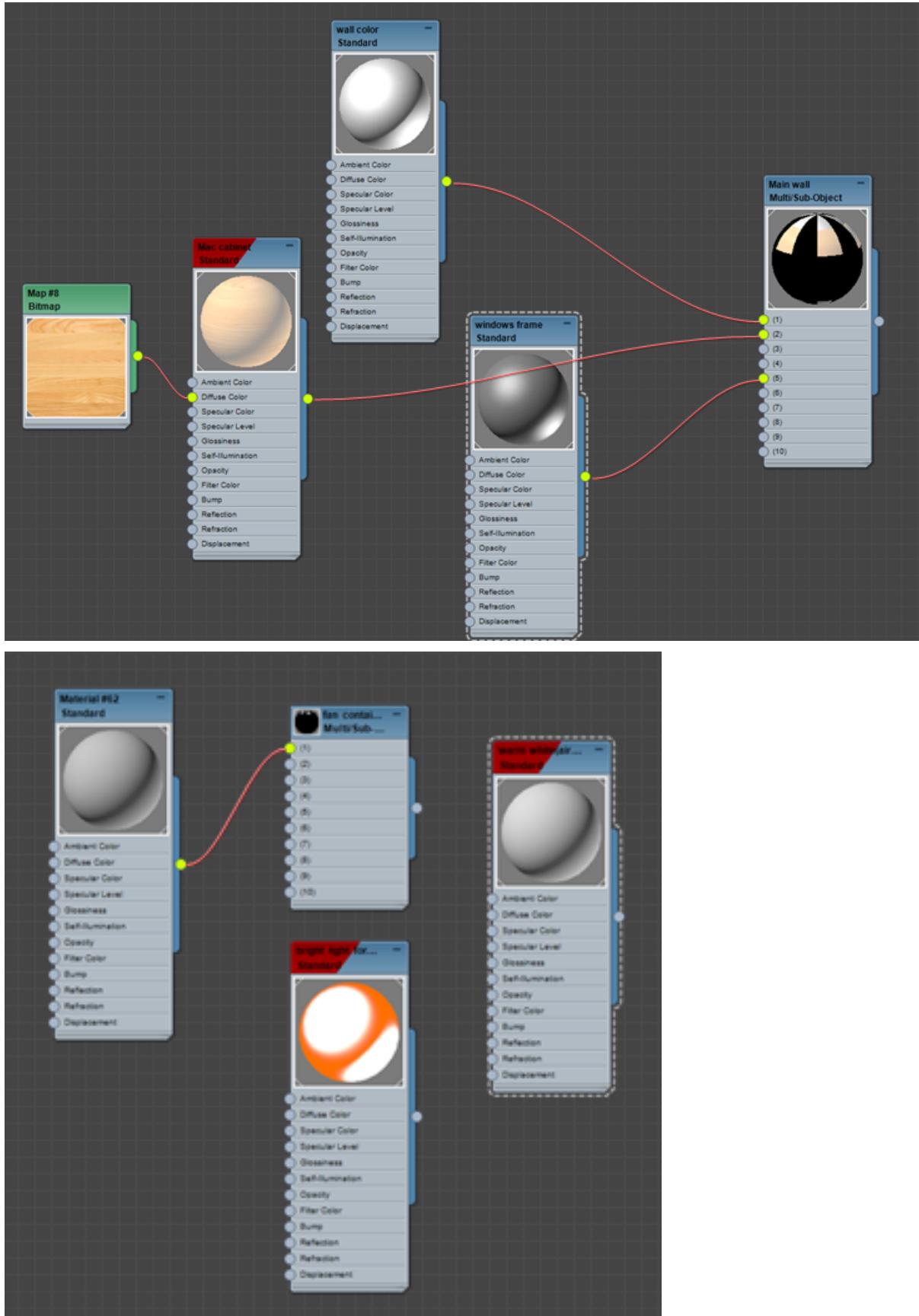




For the right hand side, yellow environment, I use spot night. For the light coming from windows, I use target night, use a rectangle area to better control the light shape.

3. For Materials & Mapping





I Try to use “multi/sub object” to group an object source, like I want one object with two materials and color, then I will use it. (By edit poly setting polygon ID), but sometimes I will use unwrap UVW.