

Modeling a Ranch House

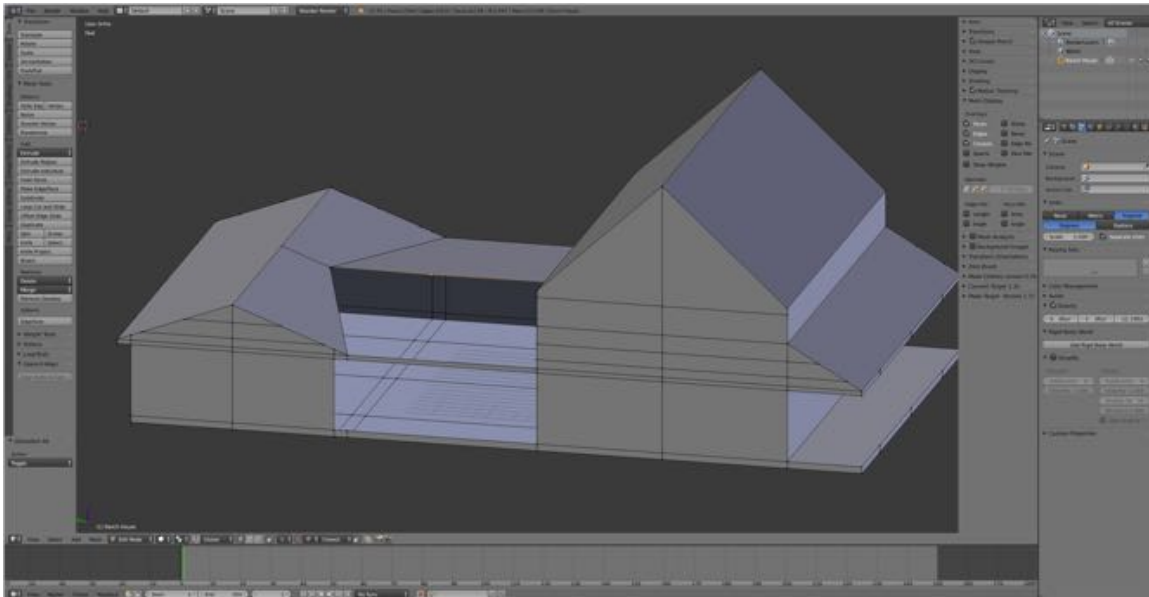
Step 04

Modeling - Adding Detail - Porches

Kitchen Porch

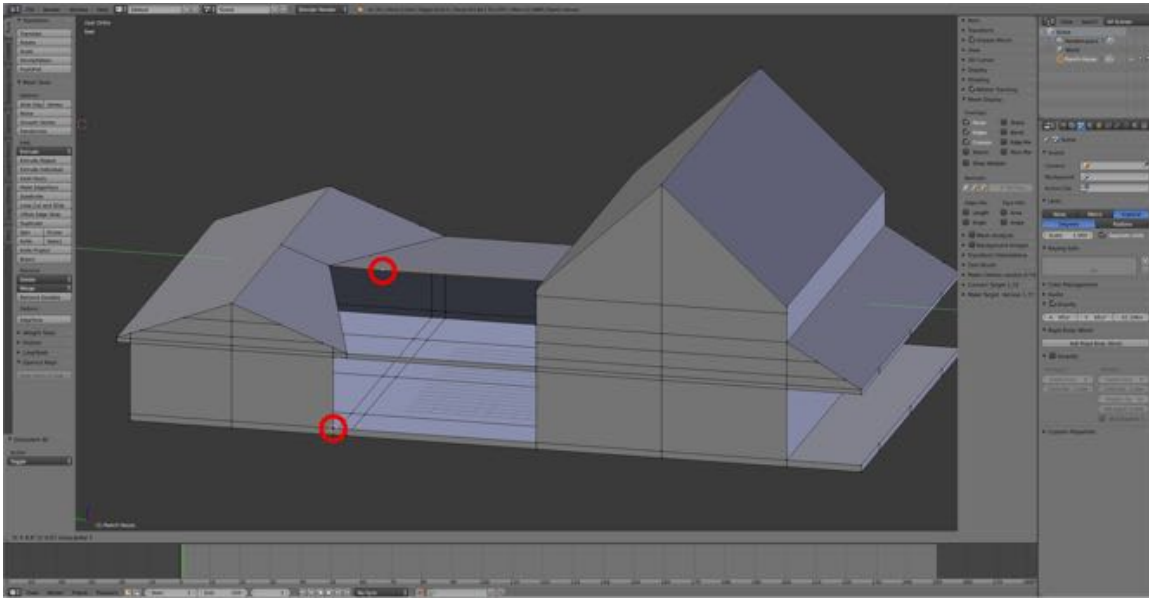
To construct the kitchen porch we will again use of the Edge Intersect VTX Tool (see website) to construct the back wall, the Snap to Mesh Tool (see website) to position vertices, then fill in the faces.

- **Switch to Face Selection Mode** and **remove (RMB > X-KEY > Faces)** the **side faces** where the kitchen porch is indented in the model.
- **Select (RMB)** the kitchen roof and **hide (H-KEY)** it.



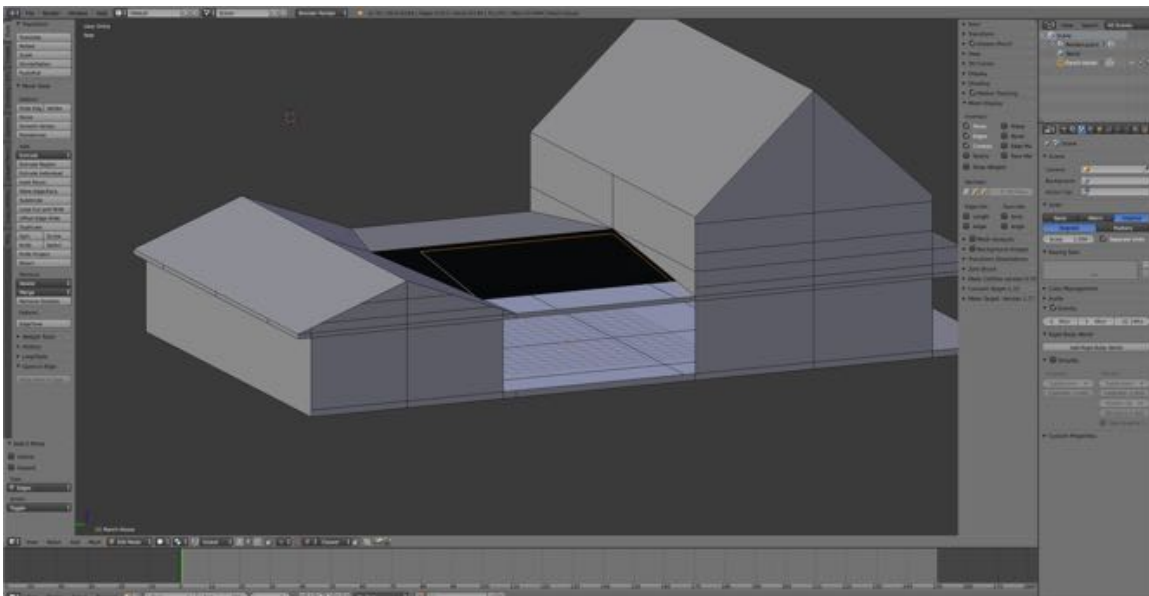
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- **Switch to Vertex Selection Mode**, turn on **snapping (SHIFT + TAB-KEY)**, **LMB** click on the **Snap Element Icon** to the right of the Snapping Icon (the magnet) header and in the Popup Menu **select Vertex**.
- **Select (RMB)** the **vertex** in the **middle** of the **kitchen ridgeline** and **snap** it to the position of the **bunkhouse wall (G-KEY > Y-KEY > position mouse over snapping target (orange circle) >LMB** to confirm).



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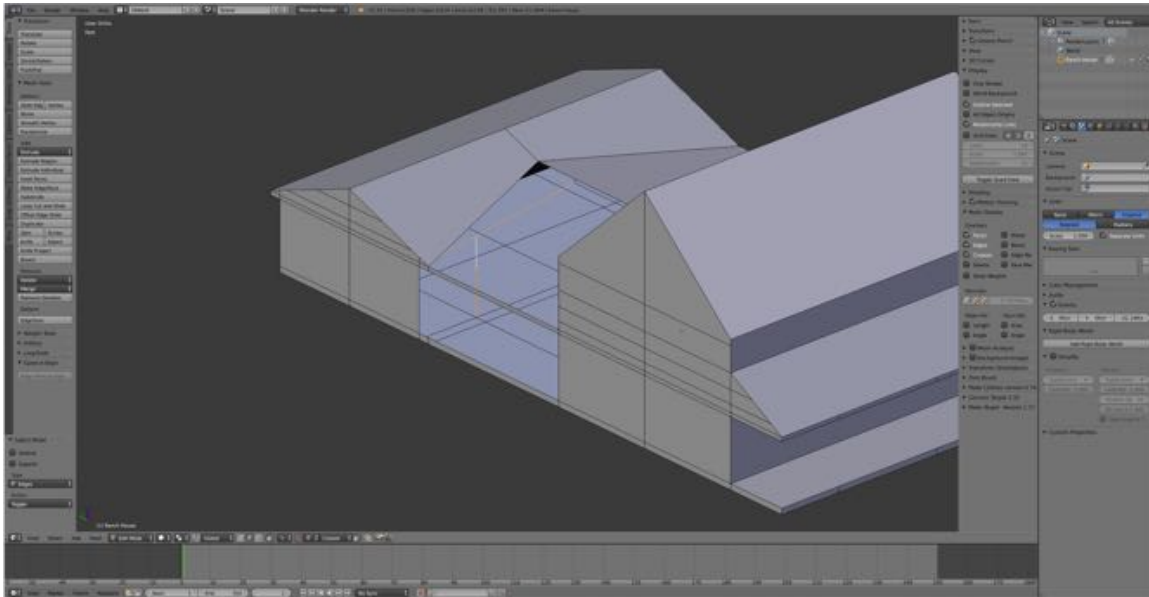
- **Extrude the vertex down 4 inches, i.e., 0.33 feet (E-KEY > Z-KEY > enter “-0.33”).**
- **Extrude the corresponding vertex on the house wall down 4 inches, i.e., 0.33 feet (E-KEY > Z-KEY > enter “-0.33”) and connect the two vertices (RMB > SHIFT + RMB > F-KEY).**
- Connect the vertices to form the underside of the porch roof.



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Now to place the back corners where the side walls of the porch meet the back wall of the porch.

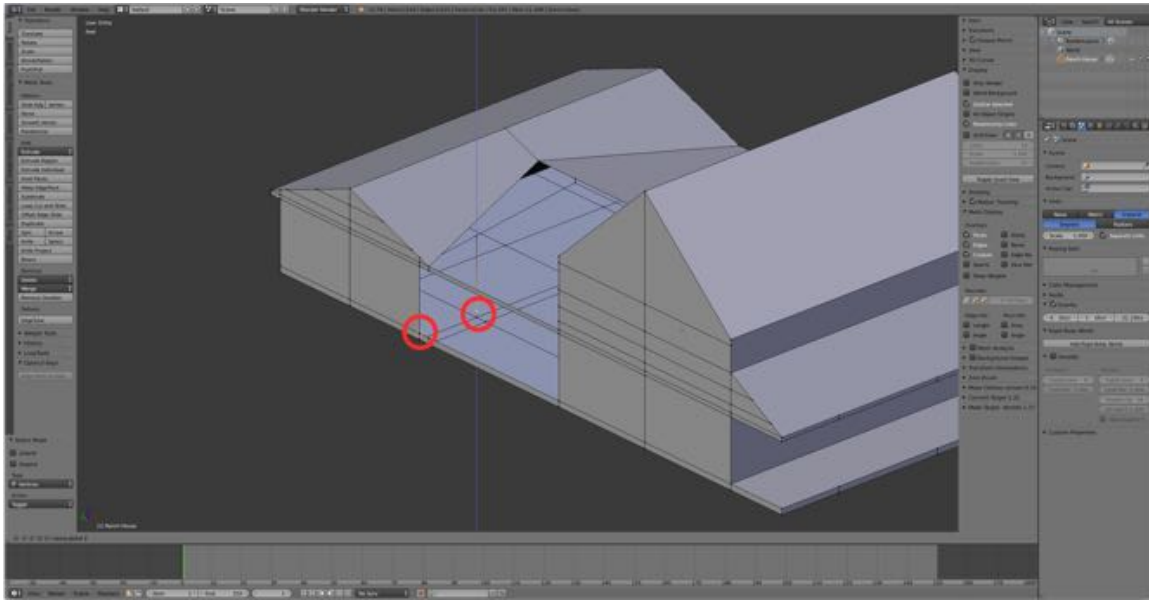
- **Select the vertex at the position of the said corners on the base and extrude upwards (E-KEY > Z-KEY > Drag) part way to the roof.**
- **Switch to Edge Selection Mode and select the corner edge and the under side roofline edge and connect using the Edge Intersect VTX Tool (W-KEY > select TinyCAD > select VTX | AUTO).**



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Now we need to place the vertices in the corners for the floor.

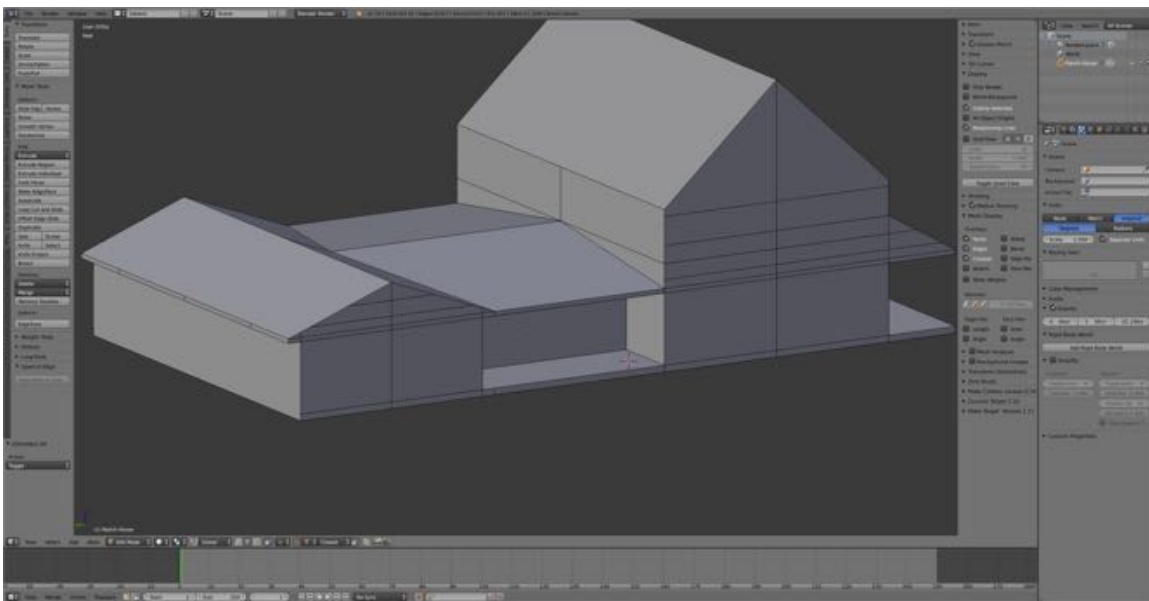
- **Switch to Vertex Selection Mode and select the vertex in the middle of the back corner edges and snap to the floor level (G-KEY > Z-KEY > position mouse over snapping target (orange circle) >LMB to confirm).**



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Now all that remains is to fill in the faces.

- **Switch to Edge Selection Mode** and fill in the faces including under the porch roof (**RMB one edge > SHIFT + RMB the opposite edge > F-KEY**).
- **Unhide ALT/OPT + H-KEY** the kitchen roof.



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Time to save your work.

- Save a copy of the **Blender file** (**SHIFT + CMD + S-KEY** and **NUMPAD-PLUS-KEY** to **incrementally increase** the file number to **“RanchHouse06.blend”** and **LMB** click **Save as Blender File**.
- Save a screenshot (**Information Editor > Window Menu > Save Screenshot**).

The opposite side of the ranch house has a similar porch adjacent to the kitchen so you can repeat the process to complete that porch.

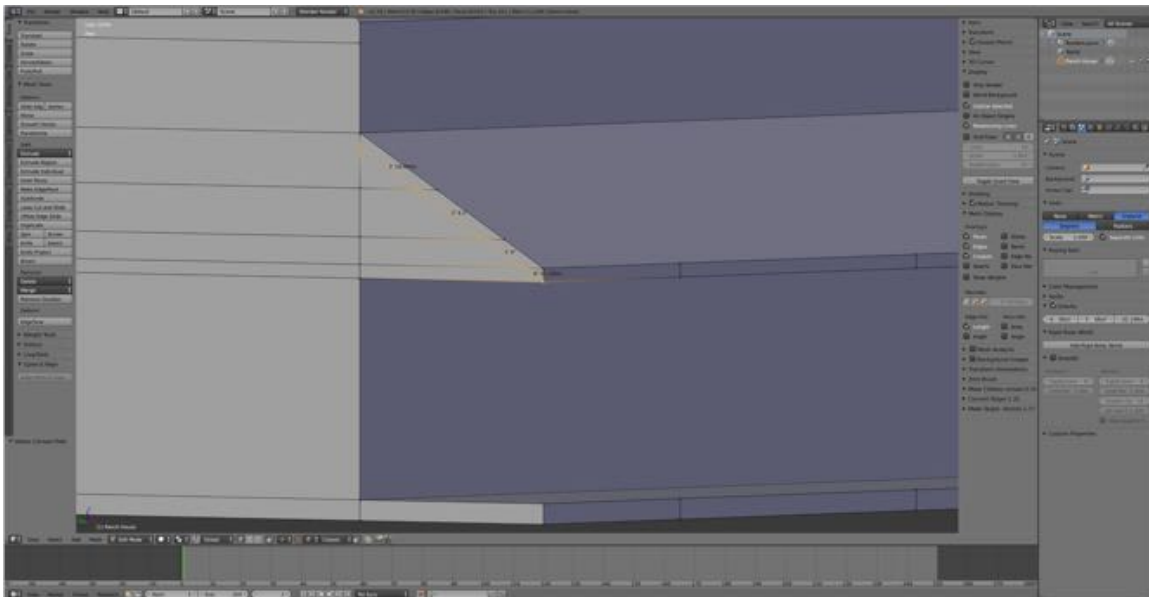
Time to save your work.

- Save a copy of the **Blender file** (**SHIFT + CMD + S-KEY** and **NUMPAD-PLUS-KEY** to **incrementally increase** the file number to **“RanchHouse07.blend”** and **LMB** click **Save as Blender File**.
- Save a screenshot (**Information Editor > Window Menu > Save Screenshot**).

Front Porch

The front porch just requires completing the roof and adding the posts.

- **Select (RMB)** the **back edge** under the front porch roof, **subdivide (Tool Shelf > Tool Tab > Add Pane > select Subdivide)**.
- **Move** the vertex **up to 4 inches** from the top (**G-KEY > Z-KEY > Drag**).
- Now **connect** the vertex (**RMB**) with the bottom vertex (**SHIFT + RMB**) at the front of the porch roof to **form the edge (J-KEY) of the under surface**.



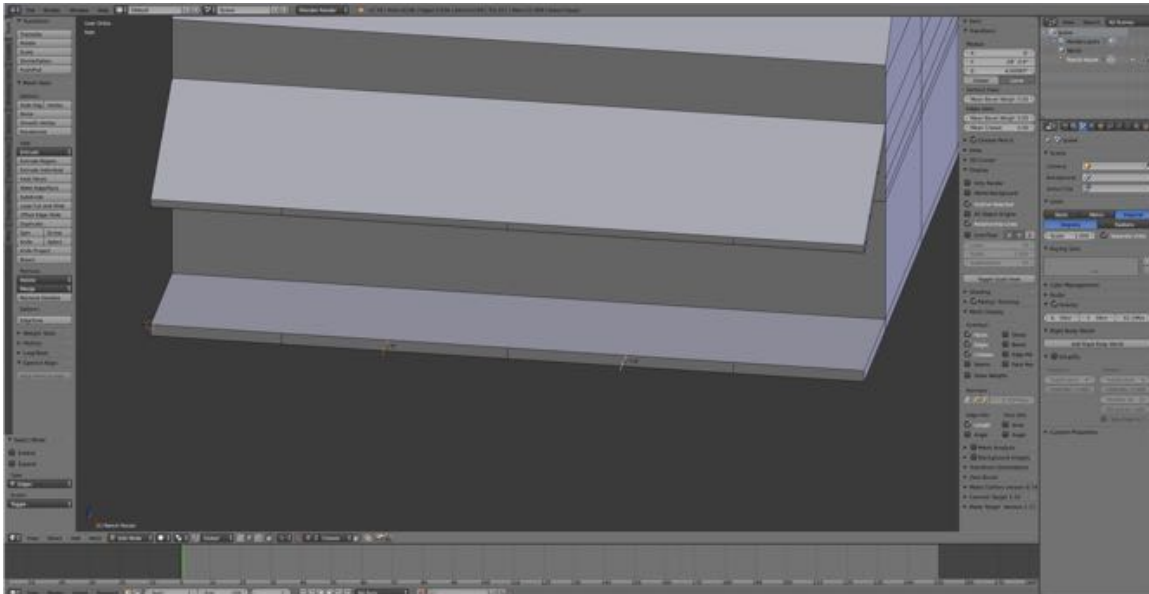
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Repeat for the other side of the porch.

- Switch to **Face Selection Mode** and remove the **unnecessary faces** at the sides.
- Switch to **Edge Selection Mode**, select the **edges** (RMB, SHIFT + RMB) and fill in the face (**F-KEY**) for the under side of the porch roof.
- Fill in the face for the back wall.

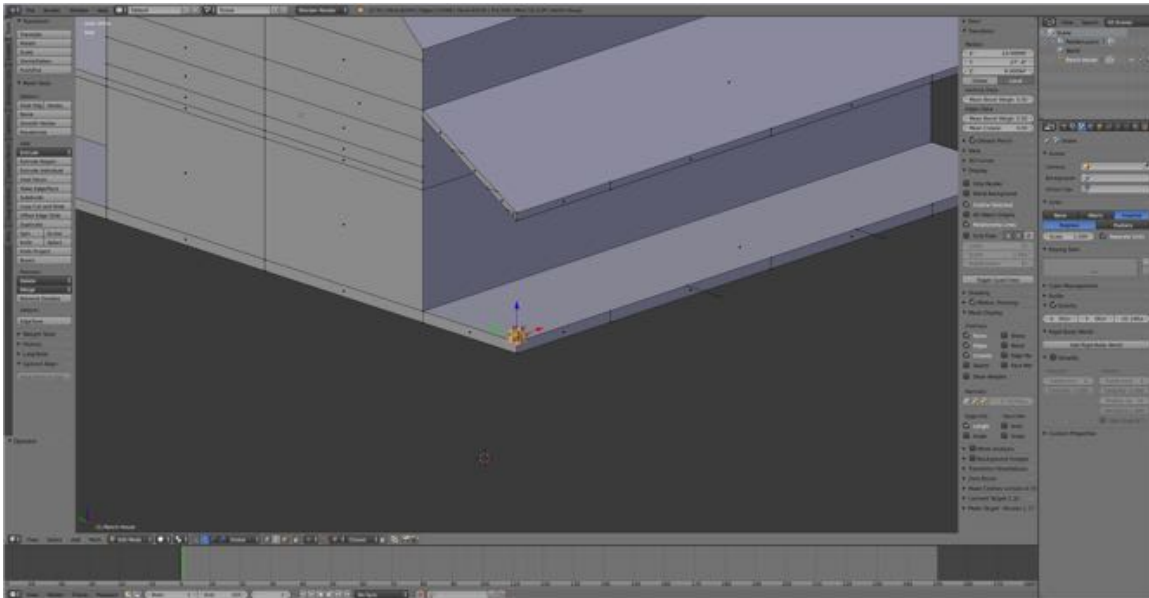
Now all that remains is to add the posts. There are posts in each corner and two in the middle for which we need to determine their location.

- Select the **upper front edge of the porch floor** and **subdivide** into **three** (**Tool Shelf > Tool Tab > Add Pane > select Subdivide > in the Tool Shelf's Operator Pane set the Number of Cuts to 2**) to mark the locations of the center posts.
- Select (**RMB**) these vertices and **extrude** on the **Y-axis** (**E-KEY > T-KEY > Drag**) these vertices so we can locate their positions later.



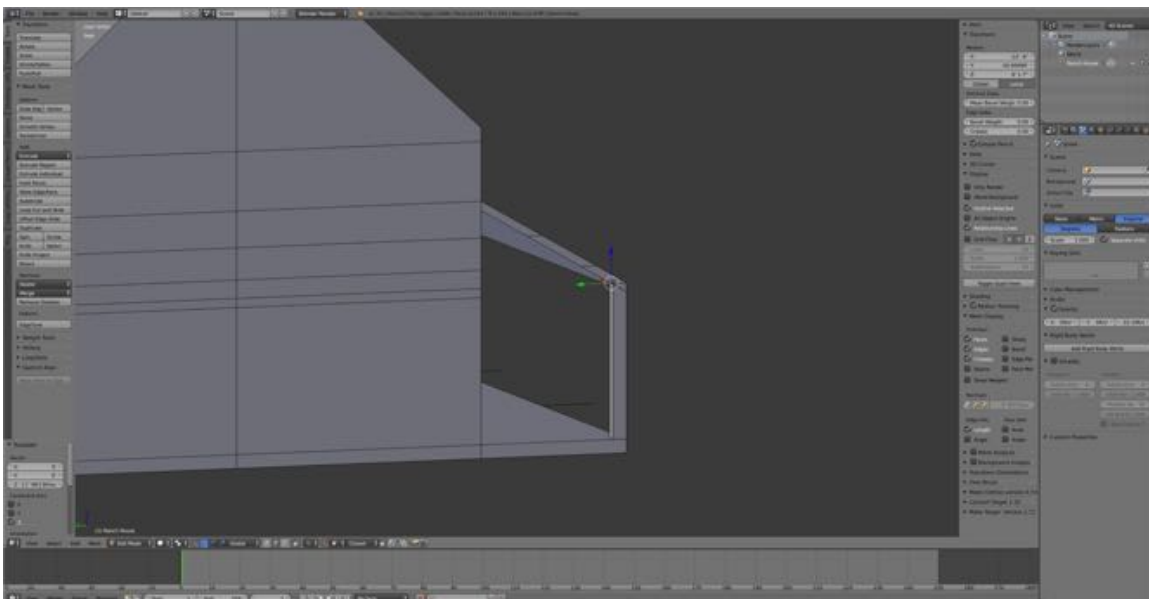
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- Select a **vertex** at the corner of the porch floor and **position** the **cursor to the selected vertex** (**SHIFT + S-KEY > Cursor to Selected**).
- Add a **cube** (**Add Menu > Cube**).
- **Scale by half twice** (**S-KEY > enter 0.5 > S-KEY > enter 0.5**) so that the cube is 6 inches in diameter.



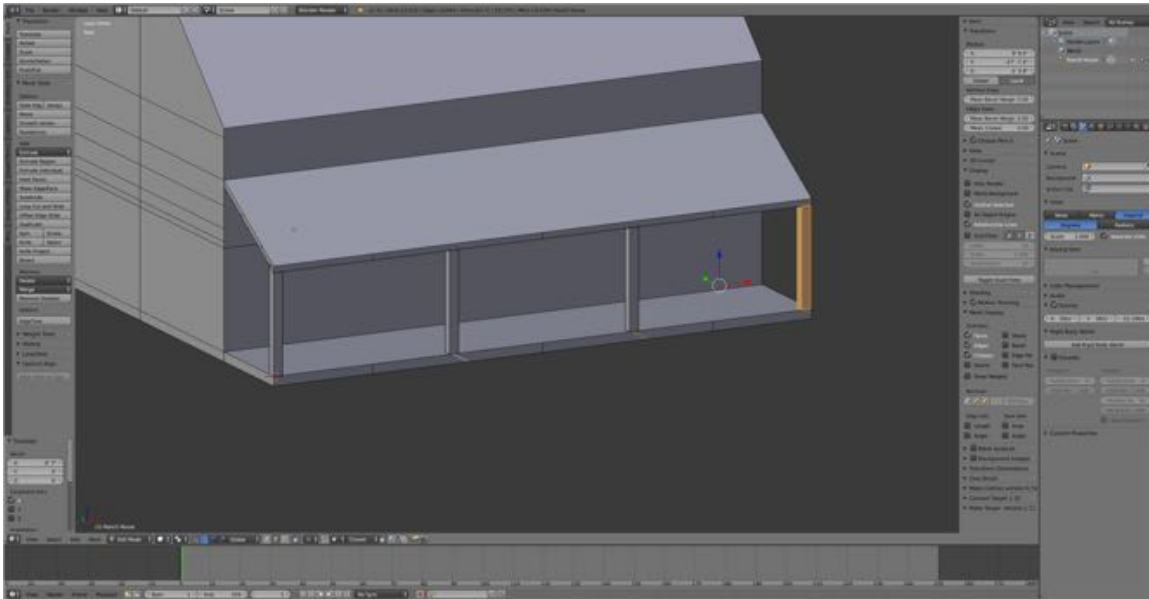
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- **Switch to Edit Mode (TAB-KEY) and Face Selection Mode.**
- **Select the cube (A-KEY) and use snapping to position** the cube in the corner of the floor.
- **Select the upper face of the cube and use snapping to move it up** to the bottom to the roof.
- **Switch to Edge Selection Mode and set the Snapping Element to Face.**
- **Select the back edge of the post and use snapping to move it up** to the under side of the roof .



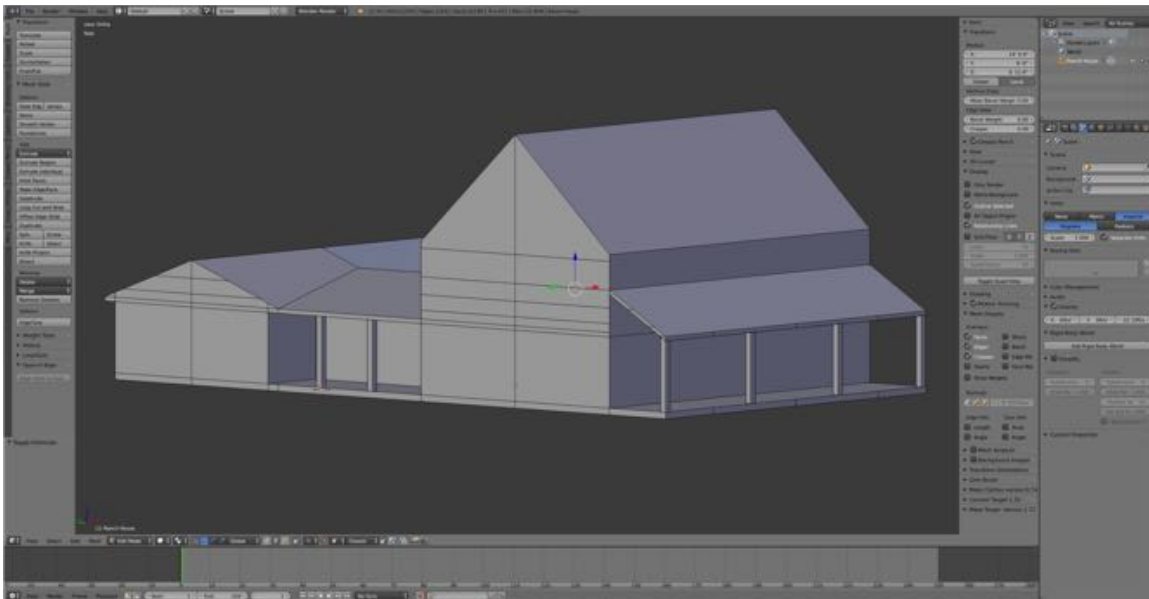
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- **Select the post (select an edge > L-KEY to select all connected edges), duplicate (SHIFT + D-KEY > ENTER) and position the remaining posts (G-KEY > X-KEY Drag).** (Use the marker edges we placed as guides. Once done, delete the marker edges.) (Turn off snapping (SHIFT + TAB-KEY) if it gets in the way.)



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Use the same techniques to place the post of both of the kitchen porches.



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Time to save your work.

- **Save a copy of the Blender file (SHIFT + CMD + S-KEY and NUMPAD-PLUS-KEY to incrementally increase the file number to “RanchHouse08.blend” and LMB click Save as Blender File.**
- **Save a screenshot (Information Editor > Window Menu > Save Screenshot).**