

# YOUR GUDE TO BUILDING A SCALE MODEL HOIME 

## What's Involved in

## BUILDING A SCALE MODEL HOME


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This guide should give you an idea of what is needed to build a custom scale model house and how much you could expect to pay for one of these "works of art".

## "My last house is always my best house."

The more I practice my craft, the better the results.

Christopher Petersen @scalemodelhomes

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## What Do I Need To Build A Scale Model?

It's important to note that I don't build scale model reproductions - I build artistic representations of homes. The more information (measurements and photos), the better the results but I consider this "Art" and open to interpretation.

My efforts focus on the exterior only although I can typically make the roof removable so you can view or modify the interior.

Unless requested, the scale houses are not wired and do not include certain details like lights, gutters, pipes, vents, weathering, or landscaping.

So what do I need to start or provide an estimate?
Ideally I could use a set of architectural blueprints however, since those are nearly impossible to come by, I need photos and measurements (or close estimates) of the exterior walls. If you provide me with an address of an existing home I can usually use Google Street View to get an idea of what the house looks like from the street and above.

Some limitations with Google Street View - there are no images available if the house is on a private road, overgrow trees and landscaping can also limit the view, and Google only provides the front drive-by view of the house.

Lacking blueprints, I need photos of each side along with measurements if possible. I have been able to create models based on estimated measurements by seeing the front of a house, for instance, I can estimate the size of the front door and estimate wall lengths from there.

## Estimating the Cost To Build A Custom Scale Model

As a point of reference, you should expect to pay at least $\$ 800$ for a moderately simple $1 / 6^{\prime \prime}$ or $1 / 4^{\prime \prime}$ custom scale model. Depending on complexity, it takes between 25-60 hours to build an amazing-looking model you'll be proud to display.

I can provide a ball-park estimate once I see photos of what you want me to build. The more detail and complexity involved, the more time is required to create a model and the more it will cost. Clearly, it will take more time and effort to build the house on the right than the one on the left below.


I use basswood (1/16" - 1/8" thick) for the walls, doors, windows, chimney, railings, etc. which gets laser-cut for accuracy, clean lines, and added detail.

Some things that increase the cost include:

- brick gets etched into the wood so this adds to the laser time - an all brick house will cost more than scale model with architectural siding.
- Spanish tile roof - I don't make these tiles so I need to get them from an architectural model supplier which tends to be expensive (adds about $\$ 100$ to the cost).


## What's Involved in the Process?



I use a 3-stage process
when building a scale model home.

Let's assume the average scale house takes 40-60 hours to complete. I'll use these hours in the example below. Making a smaller scale (like $1 / 8^{\prime \prime}$ or HO scale) still takes the same amount of time to create however uses a little less material.

Stage 1 - After getting photos and measurements I spend about $25 \%$ of the effort building the house within an architectural software package. This software allows me to create the underlying structure so the walls and roof(s) come together using building construction standards. Once the building structure is created, I can do a virtually fly around in 3D to verify the house is the correct size and export the dimensions into the scale needed for the model. [12-15 hours]

Stage 2 - I then need to create the details (windows, doors, porches, stairs, etc.) within an application to create files used to cut the wood by a laser. This step easily takes $40 \%$ of the effort required to build the scale model. [20-24 hours]

Stage 3- Once the wood is cut to scale, I apply paint(s) to the various pieces prior to construction and then I can start putting the pieces together. This stage accounts for about $35 \%$ of the overall effort. [17-21 hours]


Something to consider:
Since 65\% of the effort is invested in computer work prior to gluing a single piece of wood, you should consider getting 2 homes created instead of just one.

Assuming 50 hours of total effort, I would charge around $\$ 1500$ to build a scale model home. Building a second house would only cost an additional $\$ 525$. This brings the cost down to about $\$ 1000$ each instead of $\$ 1500$ for a single model.


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