My Balsa & Glass Workshop

The Ultimate Christmas Village Set

3D Print Description

As of 23 November 2026

With Christmas 2026 just around the corner, and having all the Christmas 3D printed gifts for family members finished, I figured maybe it was time to start working on a new Christmas Village for our North Carolina home. This will be a project that I can work on not just for this Christmas but continue to add and expand each year. Most important, I want a set of STL files that will have everything in the same scale. We have old ceramic Christmas village houses that we purchased over many years, but they ended up not all being in the same scale and are larger than what we need now for our fireplace mantle. Next priority is a set with many options for houses, buildings, figures, etc. I also want a set where the houses can be lighted using LED tea lights similar to those I used in my "Bonewraith" – Twisted Skull LED Lamp project. Those are available @: https://www.amazon.com/dp/B07D18B6JM?ref=ppx_yo2ov_dt_b_fed_asin_title&th=1.

After looking over many options, I selected a very nice and complete set that I found on cults3d.com (https://cults3d.com/en/3d-model/various/complete-christmas-village-all-86-layerline-village-models-houses-figures-an). This is the complete ***Layerline*** Christmas Village in one download: all 18 light-up buildings, all 33 figures and all accessories – trees, street furniture, market stalls, vehicles, props, the ice skating pond and the connectable road and snow tiles. ***There are a total of 134 STL files in the download.*** Everything was designed using the same scale, so I can build a whole little town for the fireplace mantle, windowsill, the sideboard or under the Christmas tree, and select what models I want to use.









Source of Images: cults3d.com

UPDATE - ***Layerline*** has posted his **Ultimate Christmas Village Set** on cults3d.com (https://cults3d.com/en/3d-model/various/ultimate-christmas-village-all-186-layerline-village-buildings-figures-and-ac). This set contains everything that is in ***Lukas's*** Complete Christmas Village Set, plus many more light-up buildings, more figures and accessories. ***There are a total of 186 models and 265 STL files in the Ultimate Set download.*** *All models are listed at the end of this print description.* I think ***Lukas*** has just about everything imaginable for a Christmas Village covered. *I'm going to have a hard time deciding which models I want to print.*

In both the Complete and Ultimate Sets every 3D model is one STL and a single piece, *exactly as in the single listings* (https://cults3d.com/en/users/Layerline/3d-models?q=Christmas+Village) – no assembly, no glue. I will print each in a single color and then paint them using acrylic paint pens (above images show painted models). All pieces share the same scale (adult figures about 40–50mm tall). ***Lukas*** provided the following general 3D printer settings:

3D printing settings

Material: PLA
Layer height: 0.12 mm for figures & accessories, 0.2mm for buildings
Infill: 10–15 %
Supports: only for a few pieces – see each model's single listing on the ***Layerline*** webpage
Orientation: as in the single listings: houses, figures and street pieces upright, tiles, the ice pond and the house decorations flat
Filament: about 4,655 grams total for entire **Ultimate** set
Walls: 2–3

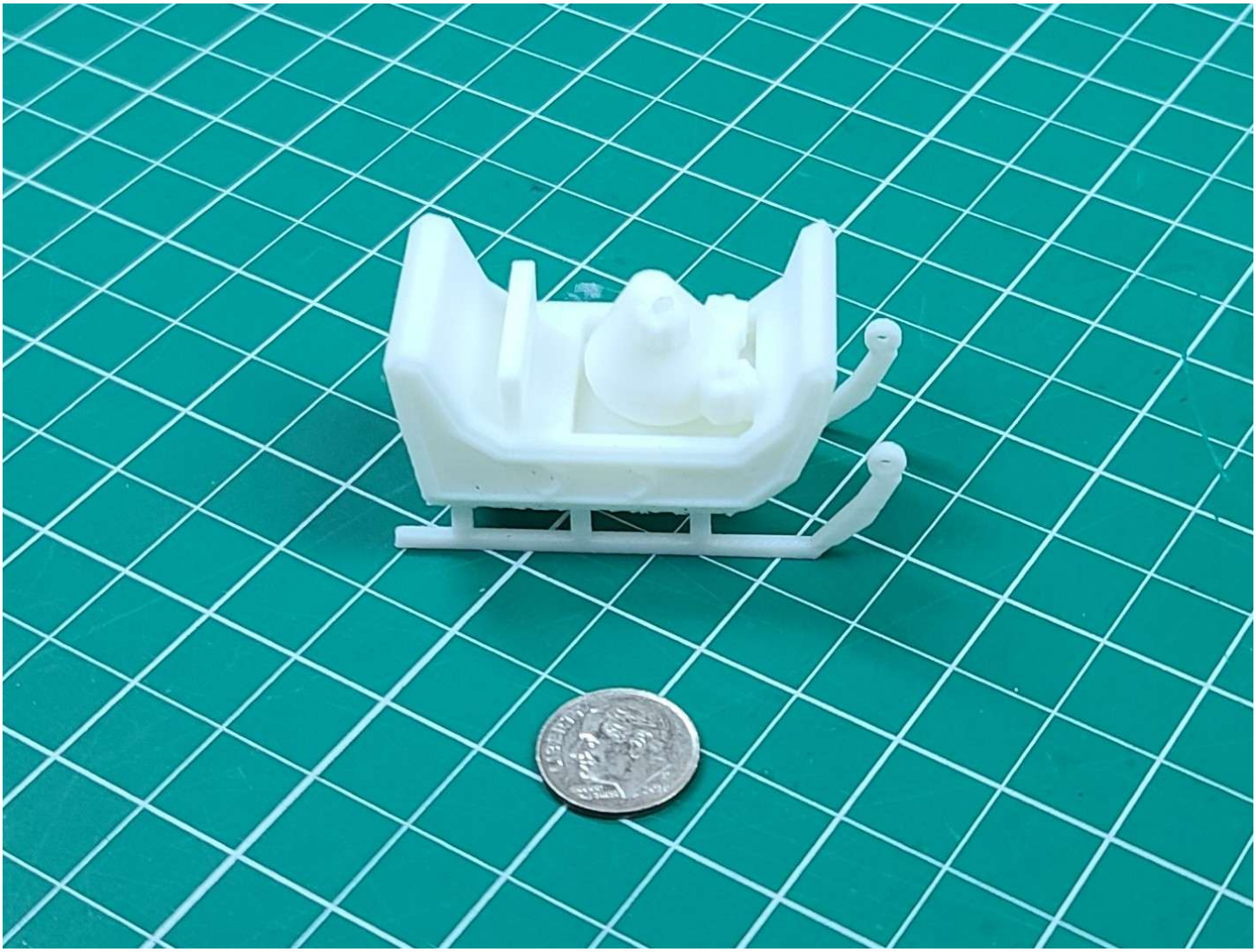
Making a Santa Claus North Pole Scene

I plan to start this project with 3D printing the models I need for a **Santa Claus North Pole Scene**. My first task is to setup a couple Creality Print project files, and related printer profile settings. I will use a standard 0.4mm nozzle profile in my Creality Ender-3 V3 and print all models using Creality CR-PLA or Ender PLA filaments. For my first model I selected the ***Santa's Toy Workshop*** (see bottom right image above): it has a big arched double door with a wreath between two candy-cane columns, a "Workshop" sign,

arched windows with snowy flower boxes, a white star on the gable and two chimneys; 111×92mm with the roof, 129mm high with the chimneys; clapboard siding, detailed on all four sides; and goes with the Santa Claus and Elf figures and Santa's Sleigh. I will print it using White PLA and then paint the details as shown in the model's single listing. Using ***Lukas's*** recommended printer settings, the workshop requires 6 hrs. 10 mins. of print time and 157 grams of filament. The resulting 3D printed model is shown below.



To check out how the set accessories will print, I selected the ***Santa's Sleigh with Gift Sack and Presents*** model. It has a curvy red sleigh body with a high front and back, a green seat, golden scrollwork on both sides, golden runners with curled tips, a bulging gift sack and three wrapped presents in the back. The model is 59×26mm and 32mm high; and goes with the Santa Claus and Reindeer figures and Santa's Workshop. Using printer settings of 0.16mm layer height and 100mm/sec. print speed, the sleigh requires 57 mins. of print time and 14.7 grams of filament.

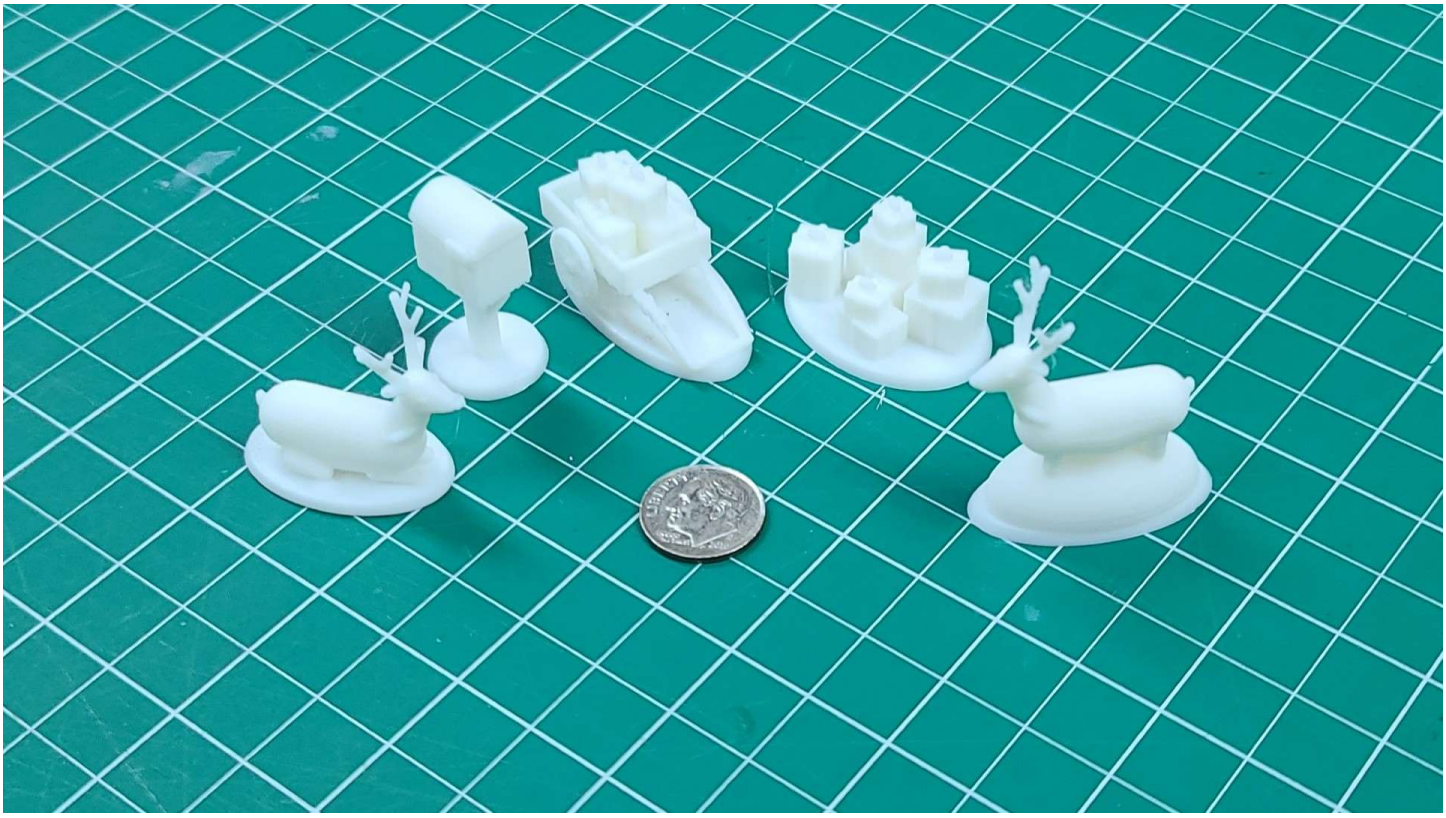


For a couple figures to go with Santa's Workshop, I first selected the ***Santa Claus with Gift Sack*** model. He has a red coat with white fur trim, a black belt with a gold buckle, a big white beard and his Santa hat, holding a bulging gift sack with presents peeking out. He is 50mm tall with a 32×20mm oval base. I also selected the ***Christmas Elf with Present*** model. This is one of Santa's helpers - a little elf with pointy ears, a long pointed hat with a pompom, a red collar and curled-toe shoes, carrying a wrapped present. He is 42mm tall with a 16mm base. Using a 0.12mm layer height and 100mm/sec. print speed, these two models require 1 hr. 8 mins. and 8.4 grams of filament.



For some accessories to go with Santa's Workshop I first selected the ***Hand Cart with Presents*** model. This is a little wooden hand cart full of Christmas presents, five wrapped boxes with ribbons and bows stacked in the cart, two spoked wheels, a front leg and the handle resting in the snow. It has a 46×22mm base and is 22mm high. Next I wanted the ***Christmas Present Pile*** model. This is a pile of eight wrapped Christmas presents, boxes of different sizes in red, green and blue paper with golden ribbons and bows, stacked on a snowy base. These have a 36×26mm base and are 21mm high. And Santa's Workshop has to have a ***Letters to Santa Mailbox*** model. This is a little red mailbox for letters to Santa: a round-topped box with a letter slot and a raised flag on a wooden post, "Letters to Santa" in raised letters on the side and snow on the top, on a snowy base. The model is 32mm tall with a 18mm base. I also selected the ***Reindeer-standing*** and ***Reindeer-lying*** models. This is a pair of reindeer: one standing knee-deep in a snow drift and one lying down with its legs tucked in, both with branching antlers and a red collar. The standing reindeer is 40mm tall, the lying reindeer 30mm tall. The snow drift under the standing reindeer carries its belly, so print without supports. Antlers are 1–1.8 mm thick: print slowly and handle with care.

Again, using a 0.12mm layer height and 100mm/sec. print speed these five models on a single print plate requires 2 hrs. 2 mins. and 19 grams of filament.



With all these models printed, my next task was to do some detail painting. ***Detail painting is NOT one of my better skills,*** and I knew this was going to be a challenge when I selected the ***Layerline*** Christmas Village. Here I decided to try a set of Acrylic Paint Markers, which I ordered from Amazon (https://www.amazon.com/dp/B0DFY9JBDR?ref=ppx_yo2ov_dt_b_fed_asin_title&th=1). Additionally, to help my old eyes see when I'm painting the smaller models, I ordered a 12X Magnifying Glass with Light and Stand from Amazon (https://www.amazon.com/dp/B0H36Z7NYL?ref=ppx_yo2ov_dt_b_fed_asin_title). Following ***Lukas's*** color selection in each model's single listing, I slowly worked my way through the detail painting of each model piece. After many hours and working hard to keep my old fingers from shaking, the results of all my efforts for my ***initial* Santa Claus North Pole Scene** are shown in the next image below. See if you can find ***Rudolph the Red Nose Reindeer.*** *It became obvious to me that I needed to "beef-up" on my detail painting skills and also look into using fine paint brushes with model acrylic paints versus the acrylic paint markers I've used for this initial model set.*



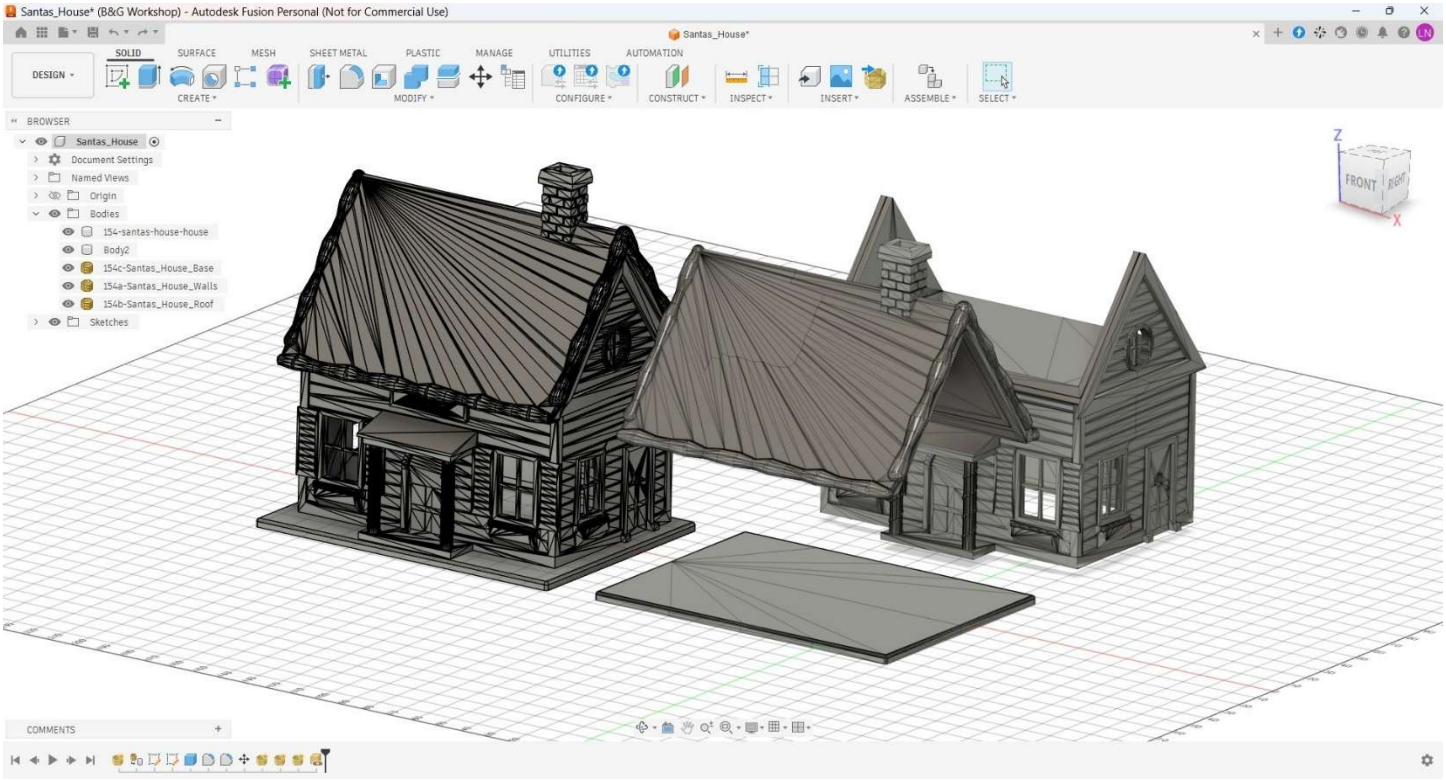
As I was taught by my father, and I have learned over many years of working on different projects, ***if you want to do a good job, you need to have the proper tools to perform the tasks***. Therefore, I decided I needed to not only reorganize my workbench, but I also had to obtain several items to help me in getting the results I wanted in detail painting my 3D printed models. I first sat down and ordered a Nicpro Thirty Colors, 20ml Ready to Use Modeling Paint Set (https://www.amazon.com/dp/B0G1YK3W1V?ref=ppx_yo2ov_dt_b_fed_asin_title&th=1), a Nicpro Sixteen piece Fine Tip Micro Detail Paint Brush Set (https://www.amazon.com/dp/B07T23TTRF?ref_=ppx_hzsearch_conn_dt_b_fed_asin_title_2&th=1), and a Nicpro Stay Wet Palette for Acrylic Painting (https://www.amazon.com/dp/B0BS6BSGFW?ref=ppx_yo2ov_dt_b_fed_asin_title&th=1). To hold the small figures and other accessories in the Christmas Village Set when trying to paint them I found the STL files for a nice "Miniature Painting Handle" on Printables.com (https://www.printables.com/model/216125-miniature-painting-handle-v3). I then found the STL files I wanted to help organize my workbench on makerworld.com. The first was a paint station (https://makerworld.com/en/models/1623402-the-paint-station#profileId-1713929) to hold my acrylic paint bottles, the next was a paint brush stand (https://makerworld.com/en/models/2484274-brush-stand#profileId-2728905) to hold all my new detail painting brushes, and then a paint brush holder (https://makerworld.com/en/models/972022-brush-holder#profileId-943967). All these filled the bill as to what I needed. You can see my detailed painting section on my workbench in the next image below.



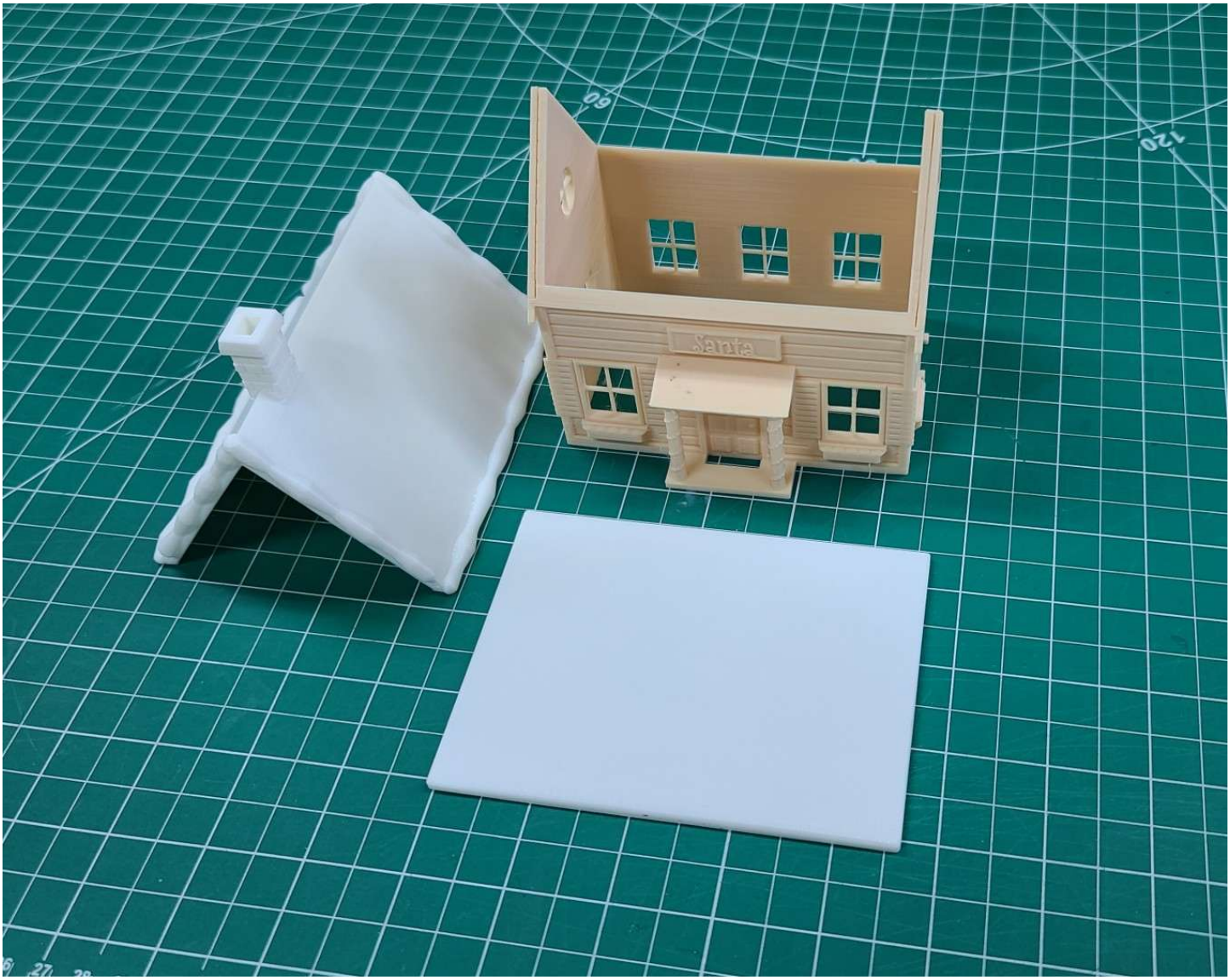
Now back to this project. My next task was to expand on my **Santa Claus North Pole Scene**. I looked down though the Ultimate Christmas Village Set Models List (at the end of this print description) and selected the models I felt would be needed to complete my scene for Christmas 2026. One of those models was the **Santa Claus House.** But, before I went off and started 3D printing this model I needed to try something first.

While detail painting my Santas Workshop model, I realized that if the workshop roof was a separate part from the workshop walls, I could 3D print the roof in **White**, and the workshop walls in a **Red** filament color similar to that I had just painted. This would ***greatly cut down*** on my detail painting work. So, for the Santa Claus House model, I imported that #154 STL file into Fusion 360 to see what I could do. After converting the STL "*Mesh*" file into a Fusion 360 "*Body*", from an end view of the house I traced the outline of the house walls as a "*Sketch.*" I then used that sketch to "*Extrude*" a new body and then used that body to "*Cut & Remove*" the original house body, leaving only the roof of the Santa Claus House model. I repeated the same process, but this time to remove the roof from the original house model, leaving only the house walls. I now had two separate Santa Claus House model parts which could be printed in different filament colors. For the last step, I added another model part to make a base *(which can be printed in White)* for the house walls to be placed.

All of the resulting three *modified* Santa Claus House model parts are shown below in a screen capture of my Fusion 360 program. I feel this will make my detail painting much easier. Additionally, once the house walls are glued to the base, the roof can be removed to drop-in & replace an LED tea light to light up the interior of the Santa Claus House. *I could even add some small yellow tinted plastic sheets (or yellow transparent filament window panels) to the inside of the house windows to add a nice "warm" effect without seeing the tea light.*



Using these three *modified* STL files, I loaded them up into my Creality Print North Pole Scene project. For the roof and base, I used **White** Creality Ender-PLA, and the 3D print required 2 hrs. 53 mins. and 94 grams of filament. For the house walls I used **Beige** Creality Hyper-PLA, and this required 4 hrs. 59 mins. and 102 grams of filament. **Note** - The print time for the house walls increased because I enabled "*Organic Tree*" supports which by themselves took 1 hr. 19 mins. and 31 grams of filament. ***I think using the modified model parts approach is going to make detailed painting much easier.*** The resulting three Santa Claus House printed parts are shown in the next image below.

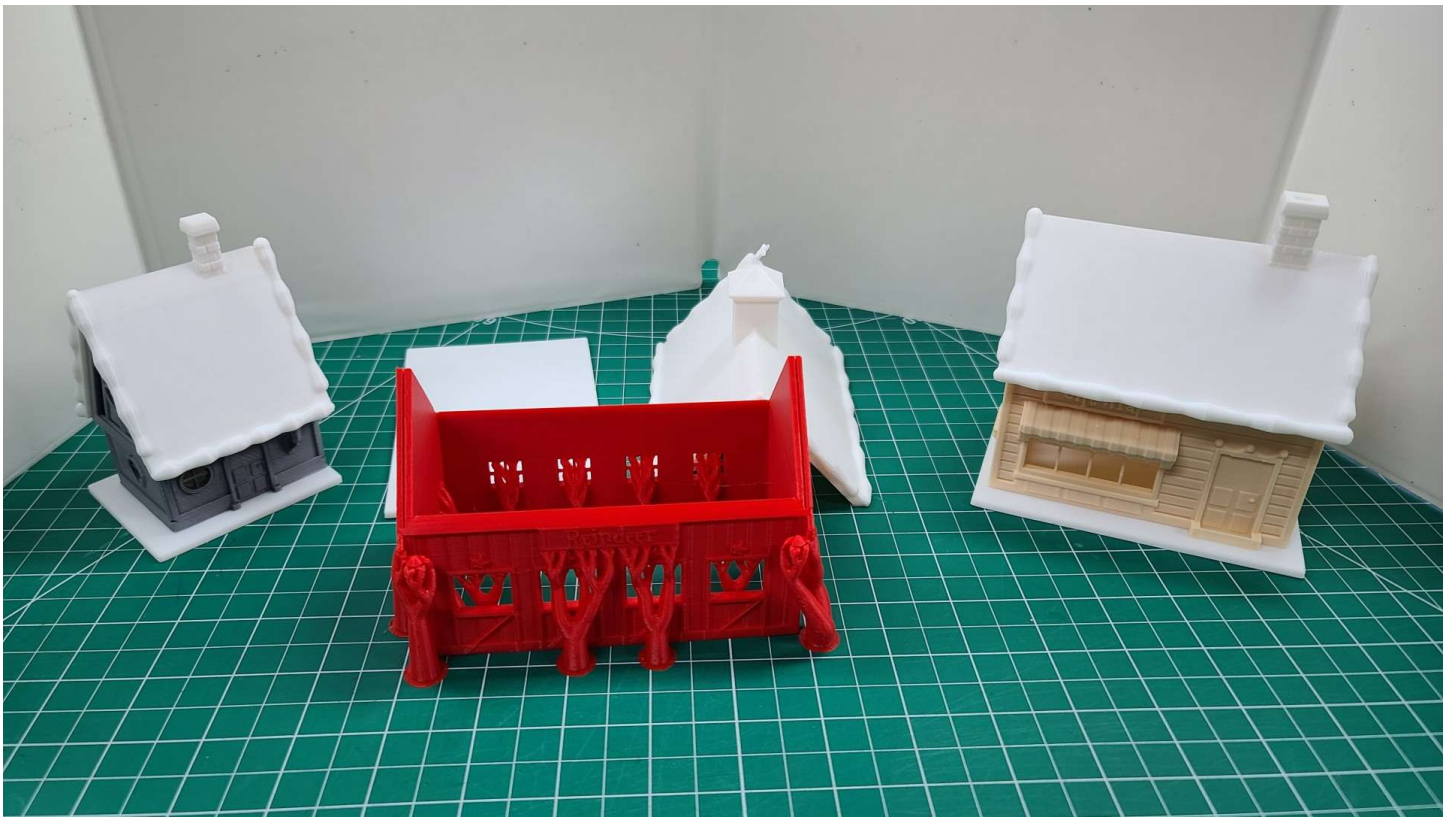


Ok, seeing that the approach I used to modify the Santa Claus House worked out as needed, I pressed forward with expanding my **Santa Claus North Pole Scene**. I next modified the **Elf Cottage, Gift Wrapping Workshop,** and the **Reindeer Stable** models to separate each original STL model into three parts (walls, roof, & base) for each model. All the resulting STL files were then added to my Creality Print North Pole Scene project file, and I printed each of the models using White PLA for all of the roof and base parts, and various selected colors of PLA for each of the model wall parts.

The total print times and filament used for each of these three models were as follows:

Model Name	Total Print Time (all three parts)	Filament Used
Elf Cottage	3 hrs. 32 mins.	84 grams
Gift Wrapping Workshop	6 hrs. 47 mins.	168 grams
Reindeer Stable	7 hrs. 44 mins.	168 grams

These three 3D printed models are shown in the next image below. I did not remove the Organic Tree supports on the Reindeer Stable to give you some idea as to extent of that printing.



The last building I wanted for my Santa Claus North Pole Scene was the **Candy Cane Factory:** a long brick building with two rows of factory windows, a big loading door, a "Candy Canes" sign between two striped candy-cane columns and two tall chimneys. The model is 133×95mm with the roof, 126mm high with the chimneys, and has brick walls on all four sides. As with the other buildings, I modified the **Candy Cane Factory** model to separate the original STL model into three parts (walls, roof, & base). I then printed the roof and base in **White** Creality Ender-PLA, and the walls in **Red** Hyper-PLA. The total print time for all three parts was 8 hrs. 38 mins. and used 181 grams of filament.

Now I needed to add more figures and accessories to go with all the new buildings in my North Pole Scene. But first I wanted to investigate some changes to both the printer nozzle and filament preset settings to see if I could obtain a better printout resolution for the figures and some accessories. To obtain this *"improved print quality"*, I decided to switch to a **0.2mm nozzle**, and setup the nozzle and slicer print profiles (for some unknown reason Creality ***does NOT provide*** any preset profiles for the 0.2mm nozzle except for their K2 Plus printer) to reduce the layer height to 0.1 mm, a width of 0.22mm, and print speeds of 40-75mm/s to give smooth and detailed surfaces to all the figures and accessories. You can view all of my Creality Print slicer settings for the 0.2 mm nozzle in my *"Handy 3D Modeling & Printing Information"* PDF file, which can be downloaded using the link on my webpage. One drawback to this approach was that the resulting G-code indicated a print job just for the **Mrs. Claus with a Cookie Tray** and **Santa Checking His List** models would now take 2 hrs. 40 mins. and 6 grams of filament. *Oh well, what else does an old retired USAF fart have to do anyway.*

I next printed one each of the **Elf with Hammer & Toy Horse, Busy Elf with Presents,** and **Busy Elf with Candy Cane** models. The three models print time was 3 hrs. 27 mins. and used 7.3 grams of filament. Results of using these new printer presets can be seen in the next image below. I think these will work out just fine.



After being satisfied with the results I was getting using the 0.2mm nozzle, I decided to press forward with printing the remaining figures and accessories I wanted for my Santa Claus North Pole Scene. This included: **Elf with Hammer & Toy Horse, Busy Elf with Presents x4, Busy Elf Painter x2; Busy Elf with Candy Cane; Polar Bears (mother & cub); Snowy Owl & Arctic Fox; Dog with Scarf; Snowy Fir Trees Set of three; Slim Spruce Trees Set of three; Hay Wagon; Hay Bales Set of three; Deer Feeding Rack; North Pole Signpost; Candy Cane Street Lamps x2; Elf Workbench with Toys; Reindeer Feeding Trough; Naughty or Nice Notice Board;** and a **Toy Soldier Sentry Box.**

Stay Tuned for More to Come!

The Ultimate Christmas Village Set Models List

Included (186 models, 265 STL files):

(Models in Blue I've 3D Printed)

(Models in Red Need to Print)

Lighted Village Buildings:

Christmas Village Bakery
Christmas Village Post Office
Christmas Village Inn
Christmas Village Cottage with Porch
Christmas Village Sweet Shop
Christmas Village Red Barn
Santa's Workshop
Christmas Village Schoolhouse with Bell Tower
Christmas Village Train Station
Christmas Village Fire Station
Christmas Village Wayside Chapel
Christmas Village Butcher Shop
Christmas Village Pharmacy
Christmas Market Carousel
Christmas Village Reindeer Stable
Christmas Village Candy Cane Factory
Christmas Village Gift Wrapping Workshop
Christmas Village Sleigh Hangar
Christmas Village Ski Chalet
Christmas Village Ski School Hut
Christmas Village Ski Shop
Christmas Village Mountain Hotel
Christmas Village Grand Hotel
Christmas Village Clockmaker's Shop
Christmas Village Candle Shop
Christmas Village Music Shop
Christmas Village Blacksmith Forge
Christmas Village Lighthouse
Christmas Village Toy Shop
Christmas Village Church with Steeple
Christmas Village Skate Rental Hut
Christmas Village Townhouse
Christmas Village Hot Cocoa Café
Christmas Village Log Cabin
Santa's House
Christmas Village Town Hall with Clock Tower
Christmas Village Bandstand
Christmas Village Bookshop
Christmas Village Windmill
Christmas Village Flower Shop
Christmas Village Steam Train
Christmas Village Nativity Stable
Christmas Village Gingerbread House
Christmas Village Elf Cottage – 2 ea.
Christmas Village Cookie Kitchen
Christmas Market Ferris Wheel
Christmas Village Après-Ski Lodge
Christmas Village Gondola Lift Station
Christmas Village Alpine Hay Barn
Alpine Trail Cross and Bench
Christmas Village Theatre
Christmas Village Hat Shop
Christmas Village Tea House
Christmas Village Police Station
Christmas Village Watermill

Other Village Structures:

Christmas Village Covered Bridge
Sausage Grill Market Stall
Waffle and Crêpe Market Stall
Gingerbread Market Stall
Mulled Wine Market Stall
Candle and Wooden Toy Market Stall
Hot Cocoa Market Stall
Christmas Ornament Market Stall

Figures:

Night Watchman with Lantern
Boy Throwing a Snowball
Lady with Christmas Presents
Man with a Christmas Tree

Girl with Muff and Earmuffs
Baker with Bread Tray
Postman with Letter Bag
Grandma with Shopping Basket
Lady with Hot Cocoa
Boy Ice Skater
Christmas Elf with Present – 2 ea.
Snow Shoveller
Mother with Pram
Couple on a Park Bench
Christmas Carolers
Krampus
Mrs. Claus with a Cookie Tray
Busy Elves – 6 total
Skier
Snowboarder
Couple with Skis
Toboggan with Two Riders
Village Policeman
Chimney Sweep
Brass Band
Dancing Couple
Firewood Seller

Child on a Sled
Market Woman with Apple Basket
Grandpa with Walking Stick
Santa Claus with Gift Sack
Girl Ice Skater
Kid Rolling a Big Snowball
Drummer Boy
Gentleman Tipping His Hat
Girl with Gingerbread Cookie and Lollipop
Village Snowmen
St Nicholas
Child with a St Nicholas Boot
Elf with Hammer and Toy Horse – 2 ea.
Santa Checking His List
Ski Kids
Ski Instructor with Child
Mountain Rescuer with Rescue Dog
Alphorn Player
Lamplighter with Ladder
Newspaper Boy
Street Photographer with Tripod Camera
Lady Walking Her Dog
Lantern Parade Children

Animals:

Reindeer – 4 ea.
Reindeer Team in Harness – 4 ea.
Penguins with Scarves
Dog with Scarf

Sheep
Polar Bears
Snowy Owl & Arctic Fox

Accessories:

Snowy Fir Trees
Slim Spruce Trees
Snowy Bushes and Rocks
Snow Fort with Snowball Pile
Double Street Lamp with Wreath
Picket Fence System
Christmas Village Signpost
Town Clock on a Post
Stone Footbridge
Birdhouse and Bird Feeder with Robins
Christmas Tree Sale Stand
Hay Wagon
Santa's Sleigh with Gift Sack & Presents

Decorated Village Christmas Tree
Bare Winter Trees
Snowy Rocks with Fir Trees
Victorian Street Lamp
Snowy Park Bench
Stone Wall Segments
Letters to Santa Mailbox
Christmas Village Welcome Arch
Water Well with Roof
Christmas Village House Add-ons
Roasted Chestnut Cart
Hand Cart with Presents
Sleds

Ski Rack with Skis and Poles
Hay Bales
Barrels and Crates
Ice Skating Pond
Cobblestone Road Tiles
Deer Feeding Rack
Horse-Drawn Carriage
Candy Cane Street Lamps
Elf Workbench with Toys
Naughty or Nice Notice Board
Giant Candy Decorations
Chairlift Tower with Two Chairs
Piste Signs and Markers
Snow Groomer
Deck Chairs and Standing Table
Mountain Hill Backdrop
Telephone Box
Town Square Statue
Snowy Hedges and Planters
Ice Fishing Hut with Fisherman
Christmas Market Tables and Benches with Mugs
Firewood Pile and Chopping Block with Axe
Christmas Present Pile
Christmas Pyramid
Snow Ground Tiles
Frozen Town Fountain
North Pole Signpost
Candy Cane Fence System
Reindeer Feeding Trough
Toy Soldier Sentry Box
Ice Sculptures
Gondola Cabin with Cable Pylon
Snow Cannon
Snowmobile
Vintage Car with a Christmas Tree on the Roof
Advertising Column
Newspaper Kiosk
String Light Arch
Market Square Plaza Tiles
Vintage Bicycle with a Christmas Tree