



Date	Tasks completed
October 18	I discussed being partners with my friend and we went to a meeting at lunchtime to sign up for the science fair.
November 1	<p>I worked with my friend to brainstorm a list of 10 project ideas for the science fair. These ideas included:</p> <ul style="list-style-type: none"> • Testing "Best Before" Dates: Are They Really Necessary? • The Impact of Different Screen Types on Eye Strain • Is Bottled water Really Cleaner Than Tap water? • The Effect of Hand Sanitizers on Bacterial Growth • Does Caffeine Affect Reaction Time? • Does Chewing Gum Improve Test Performance? • Do People Perceive Time Differently while waiting? • Designing a Backyard Chicken Coop • Designing a Low-Cost water Filtration System • Making Biodegradable Plastic from Household Items
November 8	I met with my science fair supervisor to share the ideas I had come up with and get feedback on these ideas.
November 16	I decided on the idea of designing a backyard chicken coop for this project, which I had started as a part of a school project a few months earlier. I emailed my supervisor with more information about this idea to see if I could get started.
November 17	My supervisor approved my idea, so I logged onto the CYSF website and filled out the Ethics Due Care form which got approved.
November 23	I emailed a design teacher at my school about if I would be able to 3D print a model of my chicken coop with his help, and he gave me permission to be able to use the school's 3D printer for this project.

	<p>Request to use a 3D printer at school 😊 ⏪ ⏩ ↶ ↷</p> <p> ☉ Sarah Malik <MalikS@sts.ab.ca> Saturday, November 23, 2024 at 7:06 PM</p> <p>To: ☉ Mark Schweitzer; Cc: ☉ Lily Elayaat; ☉ Kim Willoughby ▾</p> <p>Hi Mr. Schweitzer,</p> <p>I hope you are doing well. My partner, Lily, and I are planning to use the backyard chicken coop model I created in design class in grade 9 as part of our science fair project. We were wondering if we could have permission to use a 3D printer at school to print a model of the coop.</p> <p>We haven't finished finalizing our design yet, so wouldn't need to print it until the new year, but we just wanted to check if this would be possible.</p> <p>Thank you!</p> <p>Sarah</p>
December 31	I found all of the research I had done for my school project in June, made some edits to this research and added it to the "Problem" section. I also added information to the "Method" section.
January 10	I edited and completed my design on Fusion 360.
January 20	<p>I sent an email to my design teacher that I was ready to 3D print my model.</p> <p>Re: Request to use a 3D printer at school 😊 ⏪ ⏩ ↶ ↷</p> <p> ☉ Sarah Malik <MalikS@sts.ab.ca> Monday, January 20, 2025 at 6:21 PM</p> <p>To: ☉ Mark Schweitzer; Cc: ☉ Lily Elayaat ▾</p> <p>Hi Mr. Schweitzer,</p> <p>We are almost ready to print our chicken coop design. Could we meet you at lunch one day next week to make sure our design is good to be printed? If you are not available, we can also meet another design teacher.</p> <p>Thank you,</p> <p>Sarah</p>
January 30	I met my design teacher and shared the STL file for my design with him.
February 5	In case my teacher would be unable to print the design big enough or with enough detail, I did some research to find 3D external printing companies near us. I contacted the one that had the most positive reviews.

	<div><div>Re: [affordable3d] Contact - new submission Inbox x</div><div><div><div>Randy Thompson <randy@affordable3d.ca></div><div>to me ▾</div></div><div>Feb 6, 2025, 10:58 AM ☆ 😊 ↶ ⋮</div></div><div>Hi Sarah,</div><div>Thanks for reaching out. If you would like to send your 3D model file(s) over in .stl or .step format I would be happy to take a look, let you know if it is something I can do, and provide pricing.</div><div>Thanks!</div><div><div><div><div>Owner</div><div><div><div><div></div></div><div><div>Affordable 3D</div></div><div><div>DESIGN & PRINT</div></div></div></div><div>Cell: 403.618.2448</div><div>Email: randy@affordable3d.ca</div><div>Website: www.affordable3d.ca</div></div></div><div>On Wed, Feb 5, 2025 at 10:28 PM Sarah <reply-to+562873a73456@wixforms.com> wrote:</div><div><div>Sarah just submitted your form: Contact on affordable3d</div><div><div>Message Details:</div><div>Name: Sarah</div><div>Message: Hi, I want to 3D print a small prototype of a backyard chicken coop design. I have created the design on Fusion 360. I would like to know what the price would look like to print this please.</div><div>Email: sarahkmalik1@gmail.com</div></div></div></div></div>
February 6	<div><div>I responded to Randy's email.</div><div><div><div>Sarah Malik <sarahkmalik1@gmail.com></div><div>to Randy ▾</div></div><div>Thu, Feb 6, 5:54 PM ☆ 😊 ↶ ⋮</div></div><div>Hi Randy,</div><div>Thanks for getting back to me. I have attached the file.</div><div>Sarah</div><div>***</div><div><div>One attachment • Scanned by Gmail</div><div><div><div><div></div></div><div><div>Final Design Chic...</div></div></div></div></div></div>
February 9	<div><div>Randy responded to my email.</div><div><div><div>Randy Thompson</div><div>to me ▾</div></div><div>Feb 9, 2025, 9:37 AM ☆ 😊 ↶</div></div><div>Hi Sarah,</div><div>Thanks for reaching out, great looking model - but it does represent a lot of print time. You would be looking at \$150+GST, and one caveat would be that some of the smaller parts/ details would not be printable. Hinges, handles, lights.</div><div>I am located in the SE (Mckenzie Lake) and with my current print schedule I would need 2-3 days to have this complete for you.</div><div>Please let me know if you have any questions, or if you would like to proceed with the project.</div><div>Thanks,</div><div><div><div><div>Owner</div><div><div><div><div></div></div><div><div>Affordable 3D</div></div><div><div>DESIGN & PRINT</div></div></div></div><div>Cell: 403.618.2448</div><div>Email: randy@affordable3d.ca</div><div>Website: www.affordable3d.ca</div></div></div></div></div>
February 10	<div><div>My design teacher emailed me that I would have to send him 2 separate files for the</div></div>

chicken coop and the run itself because the entire model was difficult to print. So, I separated the files and sent them back to him.

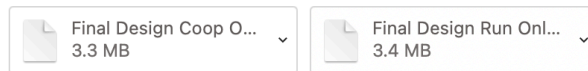
Re: Request to use a 3D printer at school



📧 Sarah Malik <MalikS@sts.ab.ca>

Monday, February 10, 2025 at 8:44 PM

To: 📧 Mark Schweitzer; Cc: 📧 Lily Elayaat ▾



[Download All](#) • [Preview All](#)

Hi Mr Schweitzer,

Thank you so much for your help, we really appreciate it. I have attached a file with just the coop and a file with just the run.

Sarah

From: Mark Schweitzer <SchweiM@sts.ab.ca>
Date: Monday, February 10, 2025 at 8:38 AM
To: Sarah Malik <MalikS@sts.ab.ca>
Cc: Lily Elayaat <Elayaal@sts.ab.ca>
Subject: RE: Request to use a 3D printer at school

Hi Sarah,

I tried to print but it failed because it is really complex with a lot of overhangs and the chicken wire is really hard to print. If I put supports everywhere it says it will take 18 hrs but we can't leave prints on overnight. I could print just the coop itself without the run and that should print ok with supports. Can you send me a file with just the coop and maybe another file with just the run? I'll also try to reprint it today.

Mr Schweitzer

February 11

I responded to Randy's email.

Sarah Malik <sarahkmalik1@gmail.com>
to Randy, Junaid ▾

Feb 11, 2025, 8:42 PM ☆ 😊 ↶ ⋮

Hi Randy,


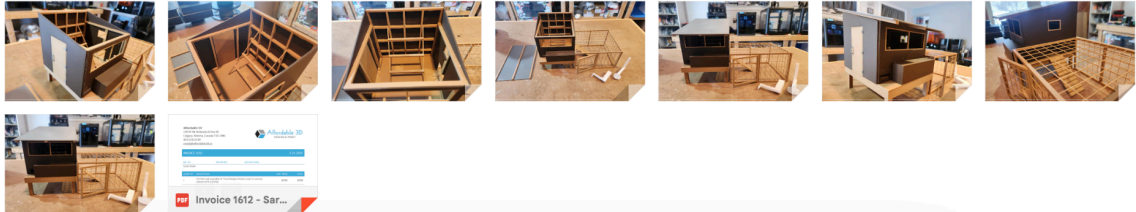
Thank you for your email. This is something that I am doing for a school project. What is the biggest size that my design could be printed? I have also cc'd my dad as he is the one who will be picking up the print and making the payment.

Thanks,
Sarah

February 12

Randy responded to my email and I emailed him back.

	<div><div><div><div><div><div>Randy Thompson</div><div>to me, Junaid ▾</div></div></div><div>Wed, Feb 12, 2:08 PM ☆ 😊 ↶ ⋮</div></div><div>Hi Sarah,</div><div><p>I would suggest that as-modeled would be the best scale to print this at (which has the "outdoor run" section at a size of 180 X 200 X 105). Larger than that would require splitting up sections that I would otherwise print as a single piece.</p><p>Please let me know if you have any other questions.</p><p>Thanks,</p></div><div><div><div>Randy Thompson (He/Him) C.E.T.</div><div><div>Owner</div><div> Affordable 3D DESIGN & PRINT</div></div></div><div>Cell: 403.618.2448 Email: randy@affordable3d.ca Website: www.affordable3d.ca</div></div><div><div><div>Sarah Malik <sarahkmalik1@gmail.com></div><div>to Randy, Junaid ▾</div></div><div>Wed, Feb 12, 7:21 PM ☆ 😊 ↶ ⋮</div></div><div>Hi Randy,</div><div><p>Thanks for letting me know. I will be taking this project to the science fair, so I will need the chicken coop to have a removable roof so that people can see the design inside of it. Also, if I were to send you 2 separate files to print, one for the chicken coop itself and one for the outdoor run, would it be possible for the design to be put together at the end even if 2 separate parts are printed?</p><p>Thank you for your help.</p><p>Sarah</p><p>***</p></div><div><div><div><div><div><div>Randy Thompson</div><div>to me, Junaid ▾</div></div></div><div>Wed, Feb 12, 9:56 PM ☆ 😊 ↶ ⋮</div></div><div>Hi Sarah,</div><div><p>As quoted this would already be printed in many separate pieces (to enable many parts to be printed they wild have to be done as separate bodies). So having a removable roof shouldn't be a problem.</p><p>Thanks</p></div></div></div></div></div>
February 13	<p>My design teacher showed me the model he was able to print. It was not able to print very well due to the complexity of the design, so I decided that I would go ahead with using Randy's help to 3D print my model instead.</p> 
February 18	<p>I emailed Randy about being ready to proceed, and he said he will start printing the</p>

	<p>design.</p> <p>Sarah Malik <sarahkmalik1@gmail.com> to Randy, Junaid ▾</p> <p>Feb 18, 2025, 9:39 PM (11 days ago) ☆ 😊 ↶ ⋮</p> <p>Hi Randy,</p> <p>I am ready to proceed. Would you like the payment in advance or when my Dad picks up the project?</p> <p>Thank you, Sarah</p> <p>...</p> <hr/> <p>Randy Thompson</p> <p>Feb 19, 2025, 10:35 AM (10 days ago) ☆</p> <p>Hi Sarah, Sounds good - thank you for your order. I will provide payment and pick-up instructions when this is complete for you.</p>
February 21	<p>Randy emailed me that the project was complete.</p> <p>Randy Thompson to me, Junaid ▾</p> <p>Feb 21, 2025, 9:40 AM (8 days ago) ☆ 😊 ↶ ⋮</p> <p>Hi Sarah,</p> <p>Your model is complete and ready for pick-up. Please see attached photos and your invoice. The only thing I havent assembled is the feeding and watering systems - maybe those would best be attached to whatever base you end up placing this on.</p> <p>Payment can be made by e-mail transfer (preferred) to this address, or if you require a credit card I can provide a separate invoice via square-up.</p> <p>I am located at 14939 Mt McKenzie Drive SE. With this model in particular I think it would be best to hand it over in person rather than leave it on the porch for you to pick up. Can you please let me know when you would like to come by?</p> <p>Thanks!</p> <p>Randy Thompson (He/Him) C.E.T. Owner  Affordable 3D DESIGN & PRINT Cell: 403.618.2448 Email: randy@affordable3d.ca Website: www.affordable3d.ca</p> <p>...</p> <p>9 Attachments • Scanned by Gmail ⓘ</p> 
February 23	I picked up the design from Randy.
March 1	I completed the "Method", "Analysis", "Citations", "Acknowledgment" and "Declarations" sections on the CYSF website.
March 8	I completed the "Conclusion" section on the CYSF website and edited all of the work I had done so far. I also glued my chicken coop to a piece of cardboard which I covered in green paper to resemble grass, and added images to the "Presentation" section of the website.
March 9	I read over all of my work online and added more images of my design to the "Method" section. I also made a video presentation of my project using Canva.
March 14	I met with my science fair supervisor to get feedback on my work and share updates on what I had been up to. I also uploaded a video of my project to the CYSF site.

March 18	My original science fair partner was removed from the project as she had been unable to help with the project. I read over all of my work on the CYSF website and added any remaining details to ensure that the entirety of my project was completed.
March 19	I printed out the text I wanted to put on my trifold to display at the science fair and assembled my trifold.