

**Synthesis 2025 Summer Immersion Program (SIP) Application**

# Deadline – March 24th, 2025

Details:

The SIP starts June 16th and goes on for 10 weeks (until August 22nd), where we work ~40 hours a week. During this time, we tackle our development and marketing workload to build and enhance Synthesis.

How to Apply:

* Fill out this form:
	+ Save this form as a PDF with a filename that includes your name and team number (Ex. “Application - John Smith 997”).
* Request letter of recommendation (LOR):
	+ These must be submitted by your recommenders to us directly, and not via you.
	+ It can’t be from a family member.
	+ It should be from a mentor/coach from your FRC/FTC team or a teacher.
	+ Your recommender should be able to speak to your abilities relevant to the role you’re applying to and/or your learning abilities and character.
	+ You can submit more than one, but at least one is required for you to be considered. Please stay in contact with your recommender to ensure they submit before or close to the deadline.
* Prepare your resume:
	+ This should include any and all relevant work for the role you’re applying for.
	+ If you’re applying for a developer role, **please** include a GitHub (your own or your team’s). This is one of the few ways we have to evaluate your coding ability, and it **significantly** boosts your application.
* Email the materials:
	+ LORs, filled out forms, and resumes are to be emailed to frc@autodesk.com.
	+ For your own material, use the subject line: “[Your Name] - [Material Type]”
		- Ex: John Smith – Application
	+ For your recommenders, use the subject line: “[Your Name] - LOR from [Their Name]”
		- Ex: John Smith – LOR from Dean Kamen
	+ There is no guarantee that any material received after the deadline will be considered or seen by us. Letters of recommendation are given extra time, but you must arrange it with us via email.
	+ **WARNING**: All emails we receive are confirmed with a reply. **If you or your recommender doesn’t receive a confirmation email within 2 business days**, please email hunter.barclay@autodesk.com and pam.kilpatrick@autodesk.com directly, or reach out over Discord to a Synthesis member. We’ve had email issues in the past.

Please reach out if there are any issues with submitting or completing this application as required above. Make sure you fill out everything relevant to the end of the document. Highlight selections and add text where requested.

See form below

# General Information

Requirements:

* 16 years old or older by the start of the program (or really close to the start).
* Currently on recently on an FRC/FTC team.
* Located within the Portland area or can relocate.

|  |  |
| --- | --- |
| Name: |  |
| Email: |  |
| Phone Number: |  |
| Birth Date: |  |
| Team Number: |  |
| Current/Former Position: |  |
| Coach/Main Contact name and email: |  |
| School years you’ve been on an FRC/FTC team: | * 2024/2025
* 2023/2024
* 2022/2023
* 2021/2022
 |
| Grade you will be in for the 2025/2026 school year: | * HS Junior
* HS Senior
* UNI Freshman
 |
| Earliest you can start work: |  |
| Last day you can work: |  |
| Any days between your earliest and latest day you won’t be able to work. Please be as specific as possible: |  |
| Unweighted GPA: |  |

Which best applies to you (choose three at most)?

* I want to reach out and engage with Synthesis’ users.
* I want to build new features for Synthesis to enhance the simulation experience.
* I want to improve the overall experience of using Synthesis.
* I want to test Synthesis to the limits with varying CAD models.
* I want to take charge in the direction of Synthesis and its development and outreach efforts.

What type of user should Synthesis be made for (choose one)?

* Developers: Students looking to test and iterate on their code.
* Designers: Students looking to validate and confirm their designs.
* Drivers: Students looking to practice driving and operating the robot around the field.
* Other:

# Prompt Questions

Please fill out the following prompts. Limit each response to 1000 words.

Prompt One: Tell us about a project you’ve worked on that has prepared you for a role at Synthesis. This could be anything from a robotic arm to a presentation you worked on and isn’t restricted to work related to robotics or school. This is your chance to highlight your ability to learn and adapt. Your response should complement your resume, not be a repeat of it.

Prompt Two: As a part of the Synthesis team, what is something you would like to do? Some examples:

* Adding new features to the simulation.
* Creating new outreach materials.
* Refining the exporter.

Get creative with this. This is your chance to show us your initiative.

# What roles would you like to be considered for?

* Developer: Works with our main webapp and exporter.
* Marketing: Builds marketing and outreach material, contributes to Synthesis’ appearance.
* Design: Contributes to Synthesis’ appearance—mainly for our website, webapp, and exporter.
* Testing: Finds, reports, and sometimes addresses bugs. Builds and tests various robots and fields.

Answer relevant questions below.

# Marketing & Design Questions

What software/tools do you have some experience with?

* Adobe Photoshop
* Adobe Illustrator
* Inkscape
* Adobe Premiere
* DaVinci
* Blender
* Canva
* Figma
* Other:

# Developer Questions

Please rate each language based on your familiarity with it. Use the following as a key:

1. Never used/heard of before.
2. I’ve looked into the language.
3. I’ve written a little bit with it.
4. I’ve made something with it.
5. I can make a full app with it.

You can use decimals if you really want, I know someone is going to:

* Java
* C/C++
* Kotlin
* JavaScript (includes TypeScript and frameworks)
* Python
* Go
* Rust
* Zig
* Swift
* C#
* HTML/CSS

What technologies are you familiar with?

* RESTful
* Nginx, Apache, etc.
* Docker
* Protocol Buffers
* GRPC

# Testing Questions

What software/tools do you have some experience with?

* Autodesk Fusion
* Autodesk Inventor
* Solidworks
* Onshape
* Web Browser Developer Tools (Chrome, Firefox, etc.)

# Anything Else?

This is your chance to clear up anything you don’t think has been addressed in the previous questions and would have a significant impact on our decision-making process. This section is entirely optional and leaving it blank will in no way negatively impact your application.

# The End

Please submit before the deadline. Ask any questions via email or discord.