

**Adding PolyJet Capabilities to ME/ESE Additive Manufacturing Laboratory:
Enhancing Education, Research, Economic Development, and Outreach**

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Total Amount Requested: \$80,000

Project Description:

PolyJet printing is a high-precision 3D printing technology that offers speed, excellent surface finishes, and multi-material capabilities, including rubber-like materials, multi-color, and transparent parts. The Stratasys J750 PolyJet printer, acquired in 2019 for the Innovation Wyrkshop, is ideal for professional-grade, multi-material printing but has limited accessibility due to its complexity and operational costs. Though suitable for research and industrial applications, the printer has been underutilized in the Wyrkshop. The team is exploring relocation options within UW to ensure continued use and avoid it being written off as a loss.

Request for Funds:

The requested funds would help to support recertification, a service contract, and consumables. Ideally, the team could write an open purchase order to Stratasys to extend the equipment's support for an extended duration. The ME/ESE Department will be responsible for the printer's relocation. Only 110VAC is required, as the necessary ventilation is currently being added.

Reason for Funding:

The J750 printer is not a good fit for the Wyrkshop due to its high maintenance costs and professional-grade features, which are unsuitable for hobbyists. Relocating the printer to the ME/ESE Additive Manufacturing (AM) Lab would enhance its utilization, aligning with the department's growing needs. To assume control of the printer, the department requires initial funding for maintenance, parts, and technician visits, as its budget is already stretched.

Benefits to the College and Tier 1 Goals:

- **Goal #1: Excellence in Undergraduate Education**
Relocating the printer to ME/ESE will make it a core asset for educational programs, particularly in additive manufacturing courses like ME4110. The printer's capabilities will better align the curriculum with industry standards, enhancing students' exposure to state-of-the-art technology and preparing them for careers.
- **Goal #2: World-Class Research and Graduate Education**
The printer is one of the only platforms offering multi-material printing capabilities, making it well-suited for conducting new research on both applications (e.g., Medical models, and complex multi-material geometries) and fundamental science (e.g., the mechanical behavior of the interfaces or design of topology-optimized multi-material parts). It will support innovative research and attract top-tier faculty and graduate

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students. Its ability to prototype intricate multi-material components will accelerate product development, particularly in materials science, engineering, and manufacturing. Graduate students will gain hands-on experience, improving their competitiveness in the job market.

- **Goal #3: Productive Economic Development through Partnerships**

The printer's relocation will help the UW Makerspace better serve the community while creating space for other essential equipment. This also strengthens partnerships with industries reliant on multi-material additive manufacturing, positioning the university for collaborative projects.

- **Goal #4: K-14 STEM Education**

The relocated printer will be showcased to high school students during tours, highlighting its role in cutting-edge additive manufacturing. This will enhance the UW CEPS's outreach, particularly in the UW ESP program, benefiting students interested in STEM careers.

By relocating the J750 PolyJet printer to the ME/ESE AM Lab, the university will boost its educational, research, and economic development initiatives, helping students and faculty stay at the forefront of additive manufacturing technology.

Table 1: Budget for requested funds

	<u>Material</u>	<u>Cost per.</u>	<u>Frequency</u>
1	Stratasys Recertification	\$5,500	One Time
2	<u>New Stratasys Service Contract</u> 3 Years of Diamond Care or 3 Years of Emerald Care or 3 Years of Sapphire Care or Time and Material	\$76,836.60 \$54,237.60 \$30,132.00 \$0	
3	Additional onsite service, parts, and repairs necessary after the initial diagnostic onsite visit	Unknown	One Time
4	Resin	\$4,274	18 months
5	Support Resin	\$582	Annual
6	Purge Resin	\$15	Each Use
7	Isopropyl Alcohol (99%)	\$5	Each Use
8	Replacement Print Head	\$1,848	As Req'd
9	Replacement Support Head	\$1,125	As Req'd
10	Cloth, Cleaning	\$30	Each Use
11	Bag, Waste	\$20	As Req'd

APPENDIX A – Pricing for Stratasys Service Offerings

Ike Ruse

From: Claire Zais <Claire.Zais@stratasys.com>
Sent: Thursday, December 5, 2024 11:24 AM
To: Ike Ruse
Subject: J750 (SN: 8500553) - Contract Information
Attachments: Stratasys Service Offerings - 8500553 ; Stratasys Recertification Policy.pdf

◆ This message was sent from a non-UWYO address. Please exercise caution when clicking links or opening attachments from external sources.

Good Afternoon,

Our support team sent over your recent contract request.

I see you looked over our Service Offering One-Pagers but are missing the pricing. I sent the attached email over to Emily last month which includes the price grid for the different levels and terms. I have reincluded it below for convenience:

J750/J850 Prime	Sapphire	Emerald	Diamond
1 Year	\$13,850	\$23,150	\$32,400
2 Year	\$26,315 (5% discount)	\$41,670 (10% discount)	\$58,320 (10% discount)
3 Year	\$37,395 (10% discount)	\$59,032.5 (15% discount)	\$82,620 (15% discount)
Recertification	\$5,500 fee (includes onsite visit)		

****Please note that the pricing above does not include the additional 7% EDU Discount****
****Any multi-year agreement is eligible for annual billing installments****

I am happy to provide a quote for any level or term of service you are interested. As mentioned above, all our EDU customers receive an additional 7% Discount which is not included in the price grid. Providing a quote for whatever levels of service you are interested will provide the exact pricing.

I have also included the one-pager which better explains our Big Box Recertification Policy.

As always, please do not hesitate to reach out with any questions or concerns. I would be happy to schedule a call to walk through an information if needed.

Thank you,

Claire Zais
Client Engagement Representative – Education and Commercial Products

Mobile: 651.391.0950

stratasys.com

APPENDIX B – Stratasys Recertification Policy



Stratasys Recertification Policy – Big Boxes

Stratasys Recertification Policy is the process of qualifying systems that are not covered under warranty or service agreement. Recertification is a prerequisite for coverage under a new service contract.

Recertification is offered only for systems that meet the following criteria:

- The system is complete and in working condition*
- A service contract is ordered together with the order for Recertification

During the Recertification Process, a certified service technician **will** complete the following:

- Identify and repair or replace defective parts at the customer's expense (may require a 2nd visit)
- All mandatory FCOs not previously performed (may require a 2nd visit)
- Complete system calibration

The following procedures **will not** be performed during Recertification:

- Hardware and software updates
- Routine preventive maintenance
- De-install / Re-install

Recertification Process

1. Contact Stratasys/Partner Service Representative
2. Review case history
3. Purchase new service contract including recertification fee
4. On-site diagnostic/assessment visit
5. If required, additional onsite service, parts, and/or repairs needed after the initial diagnostic onsite visit will be at the customer's expense
6. New contract will take effect once those repairs have been made

Recertification Fee

	Fee
Big Box	\$5,500

Stratasys may require a Recertification Acknowledgement Letter from the end customer to verify recertification eligibility. If a system is not in working condition*, Stratasys will require the necessary repairs to be made prior to the new service contract effective date, at the customer's expense.

*Working condition, meaning the system is operational. This includes but is not limited to the following: the printer is not missing parts, has not been dismantled, and/or has not sustained major damage, and the major components of the system (such as the mechanical and electrical components) function properly.