

Proposal for the Purchase of a Smartstitch S-1501 Ultra 15-Needle Industrial Embroidery Machine

Submitted to: Makersmiths Organization

Department: Sewing Department

[Link to Smartstitch S-1501 Ultra Embroidery Machine](#)

Proposal Summary

The Sewing Department respectfully requests approval to purchase a **Smartstitch S-1501 Ultra 15-Needle Industrial Embroidery Machine** with a **14" × 20" embroidery field** and the appropriate accessories. This industrial embroidery machine has been one of the most requested additions from Makersmiths members for several years and represents a significant opportunity to expand the capabilities of our makerspace.

One of the biggest reasons I chose the SmartStitch S-1501 Ultra was its outstanding U.S.-based customer support. Among the Chinese embroidery machine brands, SmartStitch has built one of the strongest reputations for responsive service, comprehensive training, and fast troubleshooting assistance. Owners consistently praise the machine for being user-friendly, and many reviews highlight how knowledgeable and accessible the support team is when questions or technical issues arise. Having reliable customer service gives new and experienced embroiderers added confidence that help is available whenever it's needed.

To gauge member interest, a survey was distributed to the Makersmiths membership last week regarding the purchase of a new embroidery machine. Eleven members responded. Ten respondents indicated they are interested in attending a "Red Tool" training class and plan to use the machine, while one respondent stated they would not personally use it but still believes Makersmiths should have a high-quality embroidery machine available for members. Survey responses also raised questions about why a new machine is needed when Makersmiths already owns one. This proposal addresses those concerns by outlining the limitations and reliability issues of the existing machine. Cost was another common concern, and this proposal aims to demonstrate that the SmartStitch machine is a reasonable investment that will provide long-term value to the organization.

We hope this purchase will mirror the successful upgrade of the 3D printing area, where older printers were functional but saw limited use. After upgrading to more capable and reliable equipment, member usage increased significantly, making the 3D printers one of the most utilized resources in the makerspace. We believe a dependable, user-friendly embroidery machine can achieve similar results by encouraging more members to learn, create, and regularly use the equipment.

The Sewing Social has been meeting consistently for over two years with strong member participation and growing interest in machine embroidery. As our membership continues to expand its skills and interests, the demand for a commercial-grade embroidery machine has become increasingly apparent.

Recommended Equipment

We are requesting approval to purchase the:

Smartstitch S-1501 15-Needle Industrial Embroidery Machine

Features include:

- 15 automatic thread colors with no manual thread changes during most designs
- Large **14" × 20" embroidery field**
- Industrial-duty construction designed for frequent use
- Faster stitching speeds 1200 SPM
- Greater reliability for a shared makerspace
- Ability to embroider a wide variety of materials with the proper accessories

With the appropriate hoops and attachments, members will be able to embroider:

- Patches
- Hats and caps
- T-shirts
- Hoodies
- Socks
- Tote bags
- Jackets
- Quilts
- Towels
- Home décor items
- Many other textile projects

Benefits to Makersmiths Members

A multi-needle industrial embroidery machine will greatly enhance our makerspace by:

1. Expanding Creative Opportunities

Members will be able to produce professional-quality embroidered products that are difficult or impractical to create on a domestic machine. This opens new opportunities for artistic expression, personal projects, and small business development.

2. Increasing Efficiency and Machine Availability

With 15 needles pre-threaded, multi-color embroidery can run automatically without repeated thread changes. Projects finish much faster, allowing more members to use the equipment while reducing instructor intervention.

3. Supporting Education and Community Growth

An industrial embroidery machine will allow Makersmiths to offer new classes, workshops, and certification opportunities. It will attract new members interested in textile arts while providing current members with access to professional-grade equipment they would not otherwise own.

Expected operating cost for the Smartstitch S-1501 Ultra (15-Needle) Embroidery Machine looking at a 5 year window

The standard factory [Smartstitch Warranty](#) provides **1 year of coverage on all parts, labor, and electronics**, which heavily mitigates repair costs in Year 1. In a community Makerspace environment, equipment typically sees higher-than-average wear due to multiple users with varying experience levels.

5-Year Operating and Repair Cost Projection

The table below assumes moderate to heavy community use (approx. 500–750 operating hours per year) and includes regular preventative maintenance to avoid major component failures.

Here is the breakdown of expected ongoing costs:

- **Consumables:**
 - **Thread & Bobbins:** Depending on design density, high-quality embroidery thread (e.g., polyester or rayon) and bobbins will cost roughly \$0.10 to \$0.25 per 1,000 stitches.
 - **Backing & Stabilizers:** Will be provided by Makersmiths members
- **Electricity:** Operating a commercial machine pulling an 80V–260V input will add very little to your power bill, typically around \$0.05 to \$0.15 per hour of continuous use depending on your local energy rates.
- **Maintenance & Parts:**
 - **Needles:** Needles break and require regular replacement. At \$0.50 to \$1.00 per needle, expect to spend about \$10 to \$30 per year.
 - **Lubrication:** Applying machine oil and grease periodically will cost around \$20 to \$50 annually.
 - **Professional Servicing:** Annual or bi-annual professional tuning or calibrating costs between \$150 and \$350 per visit.
- **Electricity:** The machine's rated input is 80V–260V with minimal draw, resulting in nominal energy costs even with multi-hour daily projects.

The 5-Year Repair & Servicing Curve – This

- **Year 1 (Warranty Protection):** Repairs to electronic components or the drivetrain are covered by the Smartstitch 1-Year Warranty. Budgeted expenses are strictly for external operator errors (e.g., a member damaging a cap driver or hoop).
- **Years 2–3 (Post-Warranty Wear):** Expect out-of-warranty replacements for small, high-wear items such as automatic thread trimmer knives, picker assemblies, or reciprocators (the plastic part that breaks safely when a needle hits a hard object).
- **Years 4–5 (Major Lifecycle Maintenance):** As the machine crosses millions of stitches, sensors may need replacing, or main drive belts will require tightening/replacement by an experienced technician.

To eliminate ongoing organizational strain on the general operating budget, we suggest Makerspace implement a usage-based cost-recovery model for all embroidery projects. Members will be assessed a nominal fee of **\$1.00 for every 5,000 stitches** executed by the machine. This micro-transaction rate is calculated to precisely offset the volume-based depletion of bulk embroidery threads, bottom bobbin threads, and the accelerated wear-and-tear on industrial needles. By shifting these variable costs directly to the end-users, the machine's primary operating overhead is reduced to zero for the organization. This ensures the long-term fiscal sustainability of the equipment without requiring recurring grant injections or continuous non-profit funding.

We do not anticipate maintenance expenses during the first year of operation, as the SmartStitch S-1501 Ultra Embroidery Machine will be covered under the manufacturer's warranty. After the warranty period, we expect routine maintenance costs to be supported through member embroidery usage fees. These fees will be reviewed periodically to ensure they adequately cover ongoing maintenance, servicing, and replacement parts. If necessary, the fee structure will be adjusted to maintain the long-term sustainability and reliable operation of the embroidery program.

5-Year Operating and Repair Cost Projection

Expense Category	Year 1	Year 2	Year 3	Year 4	Year 5	5-Yr Total
Operating Consumables <i>(Thread & Bobbins only)</i>	\$230	\$260	\$290	\$300	\$315	\$1,395
Routine Maintenance Supplies <i>(Needles, Oil, Grease)</i>	\$50	\$60	\$65	\$70	\$75	\$320
Electricity / Power Consumption	\$75	\$80	\$85	\$90	\$95	\$425
Unscheduled Repairs & Replacement Parts	\$0 <i>(Covered)</i>	\$150	\$250	\$350	\$400	\$1,150
Professional Technical Servicing <i>(Annual calibration)</i>	\$250	\$275	\$300	\$325	\$350	\$1,500
Annual Estimated Cost	\$605	\$825	\$990	\$1,135	\$1,235	\$4,790

Equipment Funding Request

We are requesting **\$8,000** toward the purchase of the **Smartstitch S-1501 Ultra Industrial Embroidery Machine and required accessories**.

Item	Estimated Cost
SmartStitch S-1501 Ultra Embroidery Machine	\$5,699.00
Magnetic Hoops	\$255.00
Thread	\$100.00
Instructional Setup	\$89.00
Sample Fabric	\$100.00
Needles	\$50.00
Stabilizer	\$100.00
Materials for Classes (practice kits & supplies)	\$500.00
Embroidery Blanks (shirts, hats, tote bags, towels, etc.)	\$500.00
Buffer / Miscellaneous Supplies (bobbins, scissors, shipping, maintenance, software, unanticipated costs)	\$607.00
Total Estimated Startup Cost	\$8,000.00

Any funds remaining after the purchase of the approved equipment and supplies will be managed responsibly and transparently. If project expenses are less than anticipated, any unused grant funds will either be returned to Makersmiths in accordance with the grant agreement or, with Makersmiths' approval, allocated to a designated maintenance budget for the SmartStitch S-1501 Ultra Embroidery Machine. Establishing a maintenance reserve will help ensure the long-term operation of the equipment by covering routine servicing, replacement parts, and other maintenance needs that support continued community access and program sustainability.

Training and Class Plan

The addition of the **Smartstitch S-1501 Ultra 15-Needle Industrial Embroidery Machine** will create numerous educational opportunities for Makersmiths members. Beyond providing access to professional-grade equipment, this machine will support a wide variety of classes that encourage creativity, skill development, and member engagement.

Initially, we anticipate significant interest in **Red Tool certification classes**, as many members have expressed a desire for access to an industrial embroidery machine for several years. Our primary focus

after installation, setup, and testing will be to ensure members can become certified to operate the machine safely and independently.

Our goal is to offer **a minimum of one Red Tool class each week** with 2-3 students in each class until the initial demand has been met and members who wish to become certified have had the opportunity to do so. Having **two trained machine stewards** available to teach these classes gives us the flexibility to schedule additional sessions when needed and accommodate member demand in a timely manner.

Based on conversations with Sewing Social participants and other Makersmiths members, we anticipate **20 to 35 members** will seek certification shortly after the machine becomes available.

Projected Red Tool Class Revenue

- **Estimated members seeking certification: 20–35**
- **Class fee: \$40 per person**
- **Estimated initial revenue: \$800–\$1,400**

This initial training income will help offset the cost of operating the program while demonstrating strong member demand for the equipment.

Once the majority of interested members have completed their Red Tool certification, we will transition to offering a variety of project-based classes while continuing Red Tool classes as needed. Planned class offerings include:

- Make-and-take embroidered patches
- Custom hats and caps
- Personalized T-shirts and hoodies
- Monogramming towels and bags
- Embroidered socks
- Holiday and seasonal projects
- Small business and product branding workshops
- Digitizing and embroidery software basics (as appropriate)

By offering both certification and project-based classes, the Sewing Department will provide ongoing educational opportunities that encourage members to continue developing their embroidery skills while making full use of this professional equipment. This approach supports Makersmiths' mission of hands-on learning, creative exploration, and community collaboration while ensuring the Smartstitch S-1501 Ultra remains an active and valuable resource for years to come.

Machine Location and Workspace Plan

The proposed location for the **Smartstitch S-1501 Ultra 15-Needle Industrial Embroidery Machine** is in the Leesburg Main Room, replacing the existing table located **next to the lockers under the window**.

This location provides ample space for the embroidery machine, its stand, supplies, thread storage, hoops, and accessories while allowing members to work comfortably and safely.

To accommodate the new machine, we will reorganize the existing sewing equipment as follows:

- The **Cricut machine** will be relocated to the craft shelving area.
- The **five Janome sewing machines** will also be stored on the craft shelves, where there is sufficient room for organized storage and easy member access.
- The existing table currently occupying this space will become available for another Makersmiths location.

This layout makes efficient use of the available space without requiring any building modifications or reducing member access to existing equipment. It also creates a dedicated embroidery workstation where the machine, supplies, and accessories can remain set up and organized, minimizing setup time and improving the overall member experience.

The Sewing Department believes this location is the most practical and efficient placement for the Smartstitch S-1501 Ultra, ensuring the machine is easily accessible while maximizing the functionality of the General Workroom for all Makersmiths members.

Why We Need an Industrial Embroidery Machine

Our current embroidery machine, the **Janome Memory Craft 15000**, which was donated to Makersmiths last summer, is an exceptional high-end domestic sewing and embroidery combination machine. It performs beautifully for home use and occasional embroidery projects. Currently we have put in approximately \$100 into this machine, as well as Mike Werling spent several hours working on the machine at no charge.

However, after extensive use by machine stewards, repeated troubleshooting, trips to the repair shop, and considerable discussion among instructors and members, it has become clear that the Janome is not designed for the volume and variety of projects required in a shared makerspace.

The primary limitations include:

- It has only **one embroidery needle**, requiring frequent manual thread changes for multi-color designs.
- Embroidery jobs are significantly slower and more labor-intensive.
- The machine has proven inconsistent and temperamental under frequent community use.
- Due to tension, timing and digital errors we have not been able to give member access to this machine.

For these reasons, we believe it is in the best interest of the Makersmiths to transition from a domestic combo embroidery sewing machine to an industrial multi-needle embroidery only system.

Current Equipment to be Sold

To offset the purchase cost, the Sewing Department proposes selling equipment that no longer best serves the needs of our makerspace.

Financial Summary

- **Requested funding for Smartstitch S-1501 Ultra and accessories: \$8,000**

Proceeds to be applied toward the purchase:

- **Janome Memory Craft 15000: Estimated sale price \$1,500–\$2,000**
- **Singer Featherweight: Estimated sale price \$400–\$600**
- **New Home Sewing Machine: Estimated sale price \$35**

Estimated total proceeds from equipment sales: \$1,935–\$2,635

These funds would be applied directly toward the purchase of the Smartstitch system, reducing the overall investment required by Makersmiths.

Conclusion

The Sewing Department has experienced steady participation for more than two years. Members have consistently expressed interest in having access to an industrial embroidery machine capable of handling a wider variety of projects with greater speed, reliability, and professional results.

Transitioning from the Janome Memory Craft 15000 to the Smartstitch S-1501 Ultra represents an investment in the future of the Sewing Department and the Makersmiths community. The new machine will better serve our members, expand educational opportunities, increase productivity, and provide capabilities expected in a modern makerspace.

We respectfully request approval for **\$8,000** to purchase the **Smartstitch S-1501 Ultra 15-Needle Industrial Embroidery Machine with accessories**, with all proceeds from the sale of the Janome Memory Craft 15000, Singer Featherweight, and New Home sewing machine dedicated toward this purchase.

Thank you for your consideration and continued support of the Sewing Department and the Makersmiths community.