EDU[**CAD**]TION **STUDY GUIDE**

How to Upload and Order Your Parts with SendCutSend

Chapter 4, Lesson 4

SendCutSend

Manufacturing with SendCutSend

- SendCutSend provides access to industrial-grade manufacturing equipment without requiring you to own machines.

- They specialize in laser cutting, CNC machining, bending, hardware installation, and finishing services. You can manufacture one prototype or scale up to thousands of parts, all by following their **Design for Manufacturing** (DFM) rules.

Supported File Formats

- Before uploading, ensure you're using the correct format for the process:
- **DXF** → For 2D flat parts (laser, waterjet, plasma cutting)
- **STEP** (.stp) → For 3D or sheet metal parts (bending, CNC machining)

- Following these file format rules ensures your parts import correctly and that the system recognizes features like bend lines and holes.

Uploading to the SendCutSend Website

- **Steps**:
  1. Go to https://sendcutsend.com/ and either log in or continue as a guest.
  2. Click **Upload File** or drag and **drop** your CAD file (DXF or STEP).
  3. Once uploaded, a flat preview or 3D rendering appears. In this lesson you'll see the flat pattern appears with our bend line (see Figure 1.1).
  4. Verify that all geometry, bend lines, and dimensions are accurate.
  5. Confirm drawing units: INCH or MM (see Figure 1.2).
  6. Proceed to the next step to choose your material and thickness.

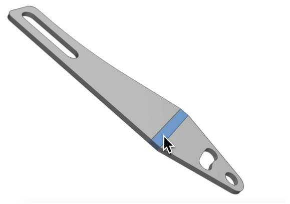

Figure 1.1

Figure 1.2

Selecting Materials

- After uploading, choose a material suitable for your process. You'll see a drop-down for each material type, ie: Metals, Composites, Plastics, Wood and MDF (see Figure 1.3).

- If your part includes bends, only bend-compatible materials will be available.

Example: For aluminum, 5052 aluminum supports bending, while other grades (like 6061) do not. Select the appropriate thickness (e.g., 0.063 in) and confirm it matches your CAD model. Thickness changes can alter bend allowances or part fit, so always stay consistent with your design intent.

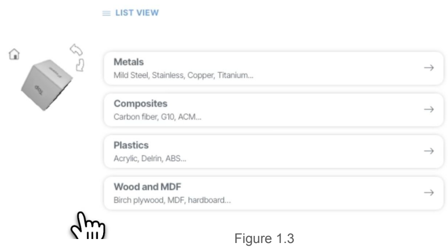

Figure 1.3

Adding Secondary Operations

- SendCutSend allows for several secondary operations that enhance your parts:

- **Bending**: Define bend angles (e.g., 90°). Use the 3D viewer to confirm orientation and direction (see Figure 1.4).

- **Hardware Insertion**: Automatically detects holes suitable for fasteners. Choose hardware types like nuts or standoffs.

- **Finishing**: Options include deburring (default), anodizing, or powder coating. Finishes change the part's appearance and corrosion resistance.

Note: *Hardware installation occurs after finishing (e.g., anodizing) to prevent damage or coating issues. If there is a secondary operation not available, it will be greyed out (see Figure 1.5).*

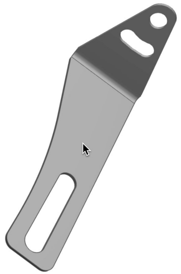

Figure 1.4

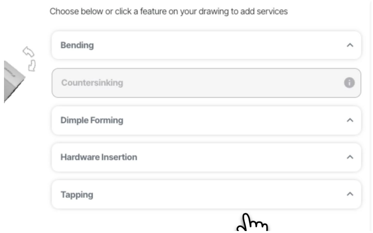

Figure 1.5

Finishing Options and Cost Breakdown

• Once secondary operations are added, you'll move to the finishing stage, if a finishing option is not available it will be greyed out (see Figure 1.6):

• **No Finish**: Fastest turnaround.
• **Deburring**: Smooths edges automatically.
• **Anodizing**: Adds protective, colored coating (e.g., red anodize).
• **Powder Coating:** One of the strongest finishes available. It's impact, chemical, and weather resistant.
• **Plating**: Adds strength and corrosion resistance.

• After configuration, your cart shows a full cost breakdown including (see Figure 1.7):

  • Material type and thickness
  • Finishing and hardware options
  • Quantity-based pricing discounts: Higher quantities reduce per-part cost significantly.

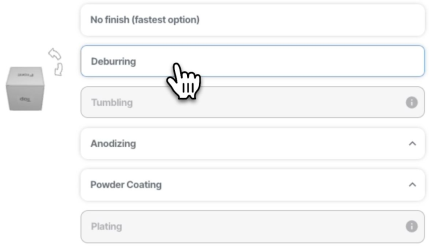

Figure 1.6

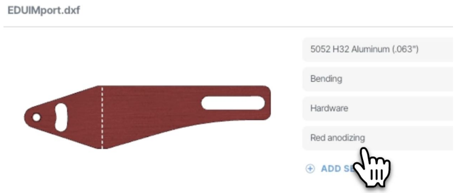

Figure 1.7

Using the SendCutSend Plugin

• SendCutSend provides an **Autodesk Fusion** and **Solidworks** plugin that simplifies quoting and ordering directly from CAD.

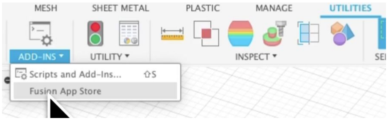

Figure 1.8

Installation for Fusion:

1. Go to Utilities → Add-ins → Fusion App Store (see Figure 1.8).
2. Search for SendCutSend and click Download.
3. Once installed, it appears under the Utilities tab (see Figure 1.9).

Figure 1.9

How to Use It:

1. Select your sheet metal body in the design workspace.
2. Choose Start Quoting Process, a window will appear on the side (see Figure 1.10).
3. Pick a metal (e.g., Aluminum 5052) and thickness.
4. Review automatic bend detection and click Quote to see real-time pricing.
5. Click Add to Cart to proceed just like the website workflow.

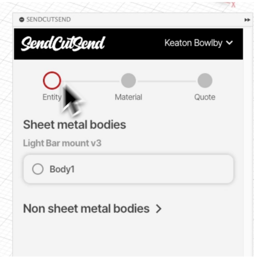

Figure 1.10

Important Considerations

- Changing thickness during quoting will affect bend allowance and bend deduction, make sure it matches your CAD design.

- Always confirm material bendability before ordering.

- Recheck dimensions in SendCutSend's preview for scale or unit mismatches.

- Separate parts into individual uploads for best nesting and pricing efficiency.

Summary

SendCutSend's web platform and plugin provide a fast, powerful way to turn CAD designs into real parts. By following DFM guidelines, selecting compatible materials, and verifying features before checkout, you can ensure professional-quality results every time.

Learn more at https://sendcutsend.com/education/