# Overview

This document contains the necessary information to build a Felting Needle Holder.

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# Maker Checklist

This list provides an overview of the steps required to build and deliver the device.

## Maker To Do List

* Read through the Maker Guide to become familiar with required components, tools, supplies, and safety gear and overall assembly steps.
* Talk to User about customization options (e.g., color, any special requests, etc.)
* Gather tools, supplies, and safety equipment.
* Assemble the device
* Test device
* Print “User Quick Guide”

## Items to Give to User

* Assembled, tested device
* “User Quick Guide”

# Tool List

No tools are required.

# Customization Guide

Different portions of the Felting Needle Holder can be printed in the user’s desired colors.

The Top and Bottom can be printed with a fuzzy setting on the outside to make them more grippy.

# 3D Printing Guide

## 3D Printing Summary

|  |  |
| --- | --- |
| **Metrics** | **V1.0** |
| Total Print Time (hr:min) | 4:00 |
| Total Number of Components | 4 |
| Typical Total Mass (g) | 35 |
| Typical Number of Print Setups | 1 |

## 3D Printing Settings

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Print File Name** | **Qty** | **Total Print Time**  **(hr:min)** | **Mass**  **(g)** | **Infill**  **(%)** | **Support**  **(Y/N)** | **Layer Height/ Nozzle Diameter**  **(mm)** | **Notes** |
| FNHB50\_Top.stl | 1 | 0:30 | 13 | 15 | N | 0.2/0.4 |  |
| FNHB50\_Bottom.stl | 1 | 0:30 | 14 | 15 | N | 0.2/0.4 |  |
| FNH\_Connector.stl | 1 | 0:11 | 4 | 15 | N | 0.2/0.4 |  |
| FNH\_Cover.stl | 1 | 0:20 | 7 | 15 | N | 0.2/0.4 |  |

The Top and Bottom can be printed with a fuzzy setting on the outside to make them more grippy – check the settings for your slicer.

## Post-processing

* Check for any bits of loose filament or sharp edges.
* Check to make sure the Cover threads into the Bottom cleanly.
* Check that the Connector threads into the Bottom.
* Check that the Connector threads into the Top.

# Assembly Guide

### Part A: Components

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **A1** | FNHB50 Bottom | QTY 1 | **A2** | Felting Needle | QTY 1 | **A3** | FNH Connector | QTY 1 |
| odFelting Needle Holder Bottom. | | | Felting Needle | | | Felting Needle Holder Connector | | |
| **A4** | FNH Top | QTY 1 | **A5** | FNH Connector | QTY 1 |  |  |  |
| Felting Needle Holder Top | | | Felting Needle Holder Cover | | |  | | |

### Part A: Tools

* None

### Part A: Personal Protective Equipment (PPE)

* None

### Part A: Assembly Instructions

#### Step 1: Insert Needle into Bottom

Insert the felting needle into the Bottom. Align the bent tip with the depression in the Bottom.

|  |
| --- |
| The Felting Needle being inserted into the Bottom. |

#### Step 2: Thread Connector into Bottom

Thread the Connector into the Bottom. Rotate it clockwise until snug.

|  |
| --- |
| The Connector threading into the Bottom. |

#### Step 3: Attach Top to Connector

Attach the Top to the Connector. Hold the Bottom stationary and rotate the Top clockwise with the needle facing away. You can also refer to the lock labels.

|  |
| --- |
| Threading the Top on to the Connector to match up with the Bottom. |

#### Step 3: Attach Cover to Bottom

Insert the needle into the Cover. Tighten the threads into the Bottom.

|  |
| --- |
| Inserting the Needle into the Cover and then threading the Cover into the Bottom. |