7. Solder the blue pill to the pin headers on the USB-NES board:
    * Place the blue pill ontop the headers with the USB port
      facing upwards, and press it flat against the header spacers.
    * Solder all the pin header joints to the blue pill.
    * Flip the board around and apply solder in the 4 corners of the blue pill footprint.
      Keep the blue pill as flat as possible against the mainboard.
    * Solder the rest of the pins to the mainboard.

8. Solder the electrolytic capacitor onto USB-NES:
    * Cut the positive lead (opposite the minus side) on the capacitor to 1/2″ (13 cm).
    * Bend the capacitor leads apart a small amount.
    * Tin the ends of the capacitor leads with solder.
    * Add an excess amount of solder to the GND pin on the blue pill (next to the DCLK pin).
    * Add an excess amount of solder to the source lead on the power MOSFET
      connected to the thick 5 volt rail running to the 5V pin on the blue pill.
    * Solder the negative lead of the capacitor to the GND pin on the blue pill.
      Leave 1 mm spacing between the negative lead and the blue pill PCB.
    * Solder the positive lead of the capacitor to the source lead on the power MOSFET.
    * Position the cap so it can rest flush against the USB-NES circuit board.

9. Solder the 72-pin cart connector to the USB-NES board:
    * Carefully line up the pins on the cart connector to the through-hole
      footprint on the top of the board and push it in flush with the board.
    * Flip the board over and solder the pins on all 4 corners of the connector to the
      board while pinching the connector flush against the board from the other side.
    * Solder the rest of the connector pins to the board.

10. Test the USB-NES:
     * Follow the included "Quick Start Guide" paper instructions.

11. Download and print the USB-NES Lite 3D models:
     * Download the 3D model print package (found in the USB-NES section) from our website:
       https://usbnes.com/wp-content/uploads/2021/08/08-20-2021-USB-NES-lite-Case-Full-Print.7z
     * There are 5 models in the package. An extra, alternate bottom model that has no branding
       is also provided to reduce print time by ~1 hour.
     * Use your favourite slicer to organize the models as you see fit for your filament printer.
     * Print all 5 models: top, middle, bottom, dust cover hinge, reset button.
     * Use a 5% infill for all prints.
     * Set top/bottom walls to 1.2 mm.
     * For PLA, use 220°C to get the best results on fine details like lettering on the first print layer.
     * Use a 52° – 55°C print bed temperature to minimize print warping and curling.
       A confined printing enclosure is recommended for best results.
     * Do not print supports.

12. Assemble the USB-NES case:
     * Use your knife to cut away any excess plastic around the hinges of the dust cover.
     * Cut away any debris on the sides of the interlocking parts.
     * Wipe any fine strings away on the PLA print with a clean cloth.
     * Carefully pop the the dust cover door into the bottom piece by
       positioning the door hinges on top the back rockers and pressing in.
     * Adjust the door hinge so its angle is flush with the bottom piece.
     * Place the reset button through the hole of the top piece print from the bottom.
     * Pop the fully-assembled USB-NES board into the middle piece print.
     * Pop the bottom of the middle assembly into the bottom assembly. Watch the bottom posts of
       the middle assembly align with the hole cutaway for the back rockers on the bottom piece.
     * Sandwich the top and bottom assemblies together.
     * Use the 4 x 1″ screws to fasten the 3 layers together using the
       holes closest to the NES cart slot. Do not over-torque the screws.
     * Use the 2 x 11/16″ screws to fasten the layers together using the
       holes closest to the front of the unit. Do not over-torque the screws.
       Do not over-thread these screws or they may pop out the top of the unit.

And that’s it!