

The **Vinylphile's Nook**

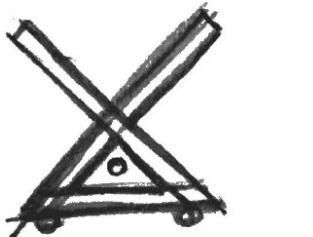
For many vinyl enthusiasts, the current market tends to lack a low-cost, dedicated storage solution that allows for a combination of safe and efficient organization of vinyl records, record player accessories, cable management, and style.

Brian Nguyen

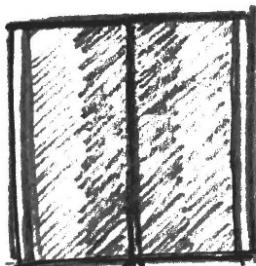
Design Review #3

Original Design from Design Review #1

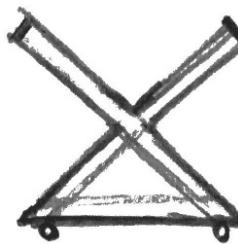
Vinylphile's Nook - Sketch #7
Brian Nguyen



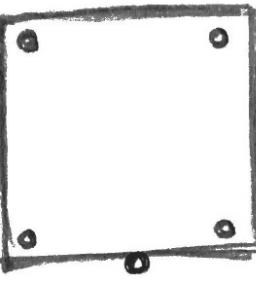
Front Front



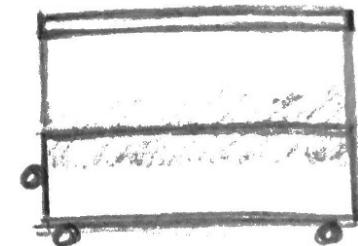
Top Top



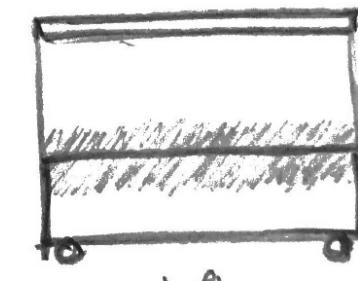
Back Back



Bottom Bottom



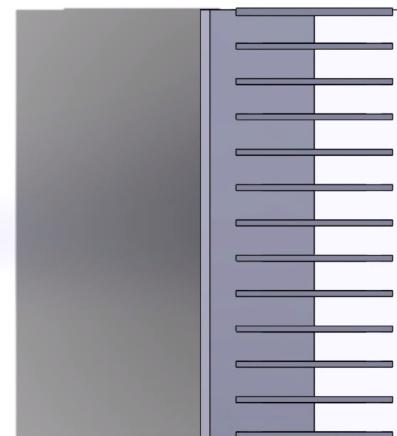
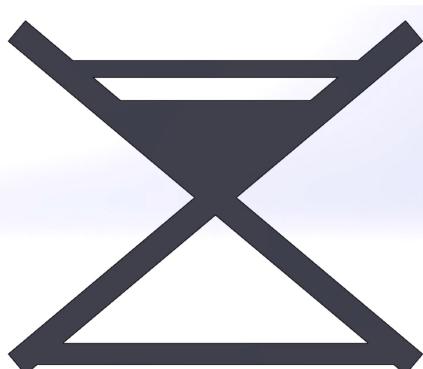
Right Right



Left Left

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Chosen Direction from Design Review #2



Technical Requirements

- **Storage Capacity:** Able to store between 35-40 vinyl records and various accessories
- **Load:** Able to support the weight of 35-40 vinyl records and various accessories
 - $(\sim 7\text{oz vinyl record} + \sim 3\text{oz sleeve}) * 50 = 500\text{oz}$
 $= 31.25\text{lbs}$
 - ... + 5lbs accessories = **36.25lbs**
- **Universalizability:** Able to store vinyl records of various sizes safely and efficiently, most commonly 12" x 12" vinyl record covers
- **Movability:** Able to be moved easily by an adult consumer capable of lifting 50 lbs.
- **Coupling:** Components must be able to be coupled together with common screws and tools (various screwdrivers, Allen wrenches, etc.)
- **Walls/platform material:** Relatively low cost, stable enough to support intended load, and aesthetically contrast with the frame/separators material
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- **Padding material:** Able to securely grip onto various surfaces to prevent sliding
- **Assembly/Disassembly:** Able to be assembled/disassembled in under an hour
- **Packaging/Shipping:** Able to be packaged in separate components in a 30" x 12" x 5" box

Materials and Manufacturing Methods

- **Walls/platform material:** Pine or cedar with either unfinished or treated exteriors
- **Frame/separators material:** Steel, PVC, or HDPE with a matte dark grey/black finish
 - Steel: Pressed and welded sheet metal
 - PVC/HDPE: Injection/blow molded
- **Padding material:** Rubber treated with anti-slip silicon coating
 - Injection molded
- **Coupling material:** Common screws compatible with Phillips/flat-head screwdrivers or Allen wrenches
- Wall slabs would be slotted together into an "X" shape using either shiplap or tongue-and-groove profiling
- "X" shape would be coupled together with two frame faces on either side with 8 screws on each corner
- Bottom platform would be coupled together with the frame with 4 screws on each corner
- Separators would be slotted into the top with tongue-and-groove profiling
- Rubber pads would be attached to the bottom platform with adhesive

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Methods

ould be slotted together into an overlapping either shiplap or tongue-and-groove profiling

ould be coupled together with 8 screws on either side with 8 screws on either side

ould be coupled to the frame with 4 screws on either side

ould be slotted into the top and-groove profiling

ould be attached to the frame with adhesive

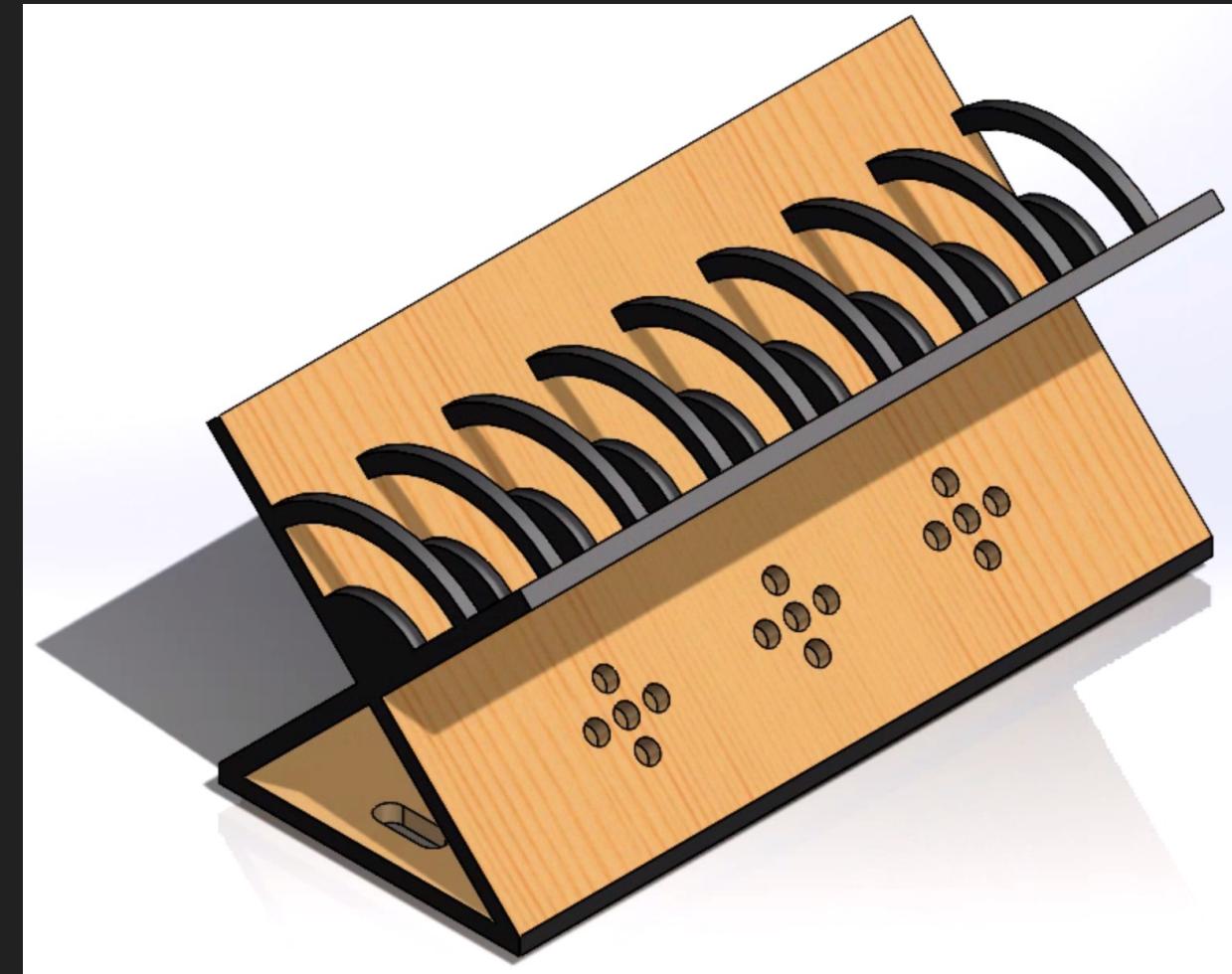
Rendering with Intended Materials



Top



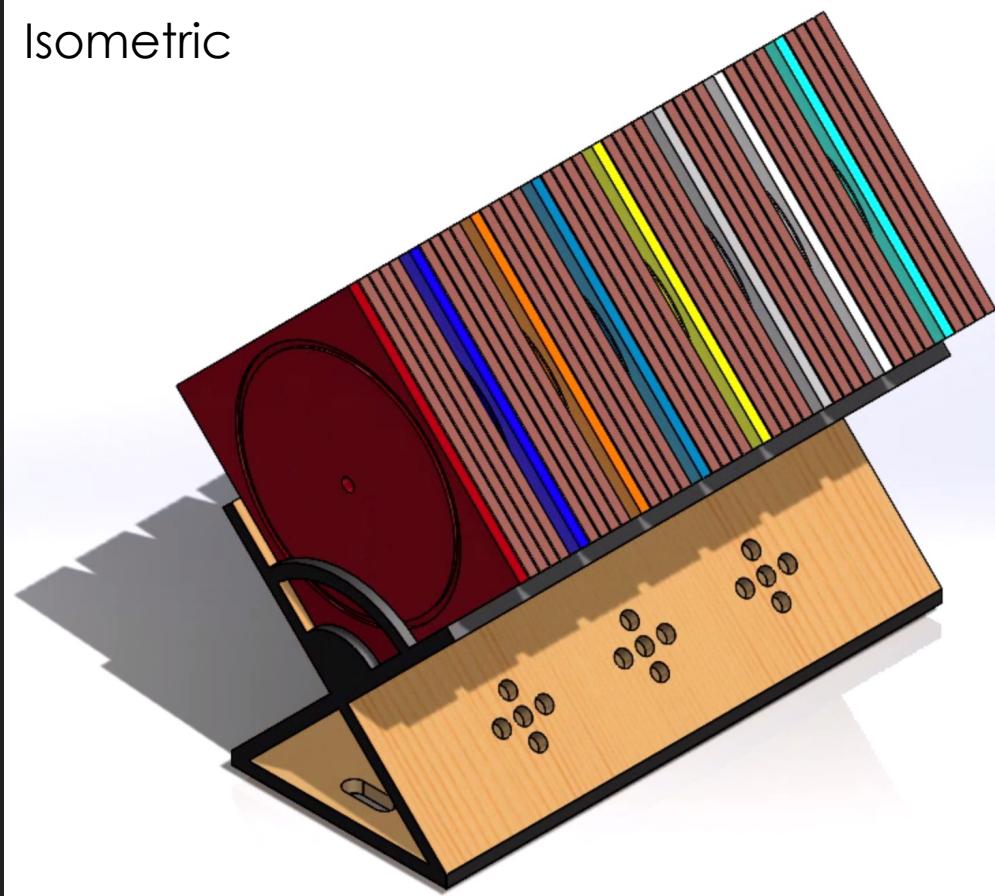
Tilted Top



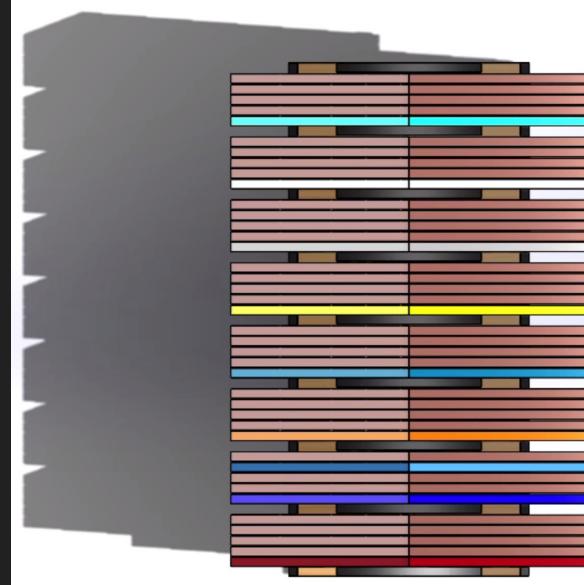
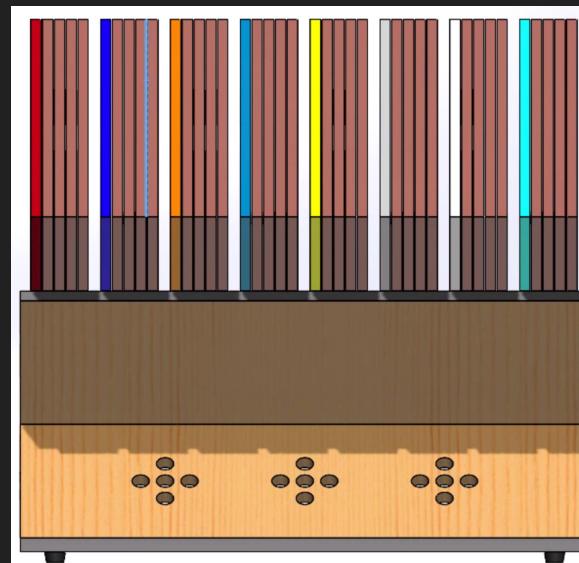
Isometric

Populated with Vinyl Records

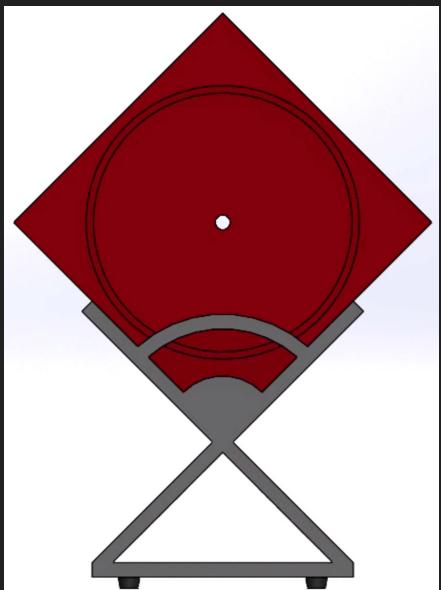
Isometric



Side



Top

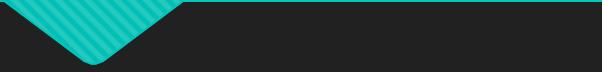


Front



Bottom

The
Vinylphile's Nook



Brian Nguyen
Design Review #3