

## Multi-axis Disc Shaped Vase – Woodturning Steps

1. Start with standard 2" thick stock approx. 6.5" square (it can be a bit smaller or larger in size).
2. Layout the circle and mark centers on the 2 ends – on the end grain – refer to sketch.
3. Bandsaw the piece round and square around the tenon area.
4. Place between centers and put a tenon on one end.



5. Turn the piece around and place it in a chuck with #2 standard jaws, turn and sand the scalloped area using the tailstock for support as long as you can for added safety.
6. Drill the hole for the tube to the required depth (16.5 mm drill size for my specific tubes).
7. With a jam chuck/pad turn a tenon on the outside diameter of the piece to fit large #5 or #6 jaws of the stronghold. If you do not have the #5 or #6 jaws you can simply true up the outside diameter using the jam chuck and tailstock in place. With the outside diameter true, you can now hold the piece.
8. After placing the piece in the large stronghold jaws or jumbo jaws flatten the surface and add a glue block centered with the tailstock (can use the chuck adapter attached to the tailstock to be more accurate). Use hot melt glue or 5 minute epoxy.
9. Bandsaw the bottom of the vase where the small tenon is and flatten/sand it (belt sander preferable)
10. Put the piece in the chuck using the glue block, true up the outside diameter and mark the center of the vase thickness on the outside diameter. Then turn the disc fully to your desired shape, sand all reachable areas.
11. Part through the glue block most of the way and then remove the piece with the chuck still attached. Reverse it and snug it up against a vacuum chuck, or chuck with special purpose jaws made wither with flat jaws or on the jumbo jaws.
12. Saw off the rest of the glue block and finish turn and sand the piece. Finish with your choice of product, I simply spray my pieces with a rattle can of lacquer.

## References and Tools:

- Multi Axis Disk Vase article by Dennis Belcher, American Woodturners June 2017 -  
<https://community.woodturner.org/communities/community-home/librarydocuments/viewdocument?DocumentKey=c3c12b62-ae50-4677-a78e-056d3408896d>
- Woodturning a Disc Shaped Bud Vase YouTube by Frank Didomizio, June 2021 -  
<https://youtu.be/nnyUFuTyvE>
- Sorby Stebcenter (safe driver) - [https://www.leevalley.com/en-ca/shop/tools/power-tool-accessories/49904-sorby-stebcenters?item=85S0902&utm\\_source=free\\_google\\_shopping&utm\\_medium=organic&utm\\_campaign=shopping\\_feed&gclid=Cj0KCQjwqoibBhDUARIsAH2OpWj\\_sM19A91tLuOoJVukQkojMPGBHOdoazc3W5SMLK1W0ICXnk2iTQ4aAtsbEALw\\_wcB](https://www.leevalley.com/en-ca/shop/tools/power-tool-accessories/49904-sorby-stebcenters?item=85S0902&utm_source=free_google_shopping&utm_medium=organic&utm_campaign=shopping_feed&gclid=Cj0KCQjwqoibBhDUARIsAH2OpWj_sM19A91tLuOoJVukQkojMPGBHOdoazc3W5SMLK1W0ICXnk2iTQ4aAtsbEALw_wcB)
- Tube – 16 x 100 mm plastic tubes from Amazon (60 pcs with caps and plastic rack) -  
[https://www.amazon.ca/gp/product/B07Q5DZ3CR/ref=ppx\\_yo\\_dt\\_b\\_asin\\_title\\_o01\\_s00?ie=UTF8&psc=1](https://www.amazon.ca/gp/product/B07Q5DZ3CR/ref=ppx_yo_dt_b_asin_title_o01_s00?ie=UTF8&psc=1)
- 16.5 mm drill from Amazon and you need a Jacobs chuck for drilling -  
[https://www.amazon.ca/gp/product/B08HWQ852M/ref=ppx\\_yo\\_dt\\_b\\_asin\\_title\\_o03\\_s00?ie=UTF8&psc=1](https://www.amazon.ca/gp/product/B08HWQ852M/ref=ppx_yo_dt_b_asin_title_o03_s00?ie=UTF8&psc=1)
- Chucks and jaws all from Oneway - <https://oneway.ca/products-category/chucks>
  - #6 stronghold jaws, Part#3779
  - Flat jaws, Part #2756
  - Jumbo jaws, Part #2159
- Bowl gouge, parting tool, negative rake scrapers - <https://woodchuckers.com/collections/scrappers>
- Carbide burr tool for neg rake scraper - <https://www.leevalley.com/en-ca/shop/tools/sharpening/32643-veritas-carbide-burnisher?item=05K2030>
- Hot melt glue to attach a waste block (or 5 minute epoxy) - <https://www.leevalley.com/en-ca/shop/tools/supplies/adhesives/glue/111252-adhesive-sticks-for-fastenmaster-pro-hot-melt-gun?item=03K0355>
- Nice to have: tailstock chuck adapter that fits onto the Oneway live center -  
[https://oneway.ca/index.php?route=product/category&path=59\\_75\\_107\\_113\\_119](https://oneway.ca/index.php?route=product/category&path=59_75_107_113_119)
- Dye – Transtint <https://www.woodcraft.com/products/transtint-dyes-blue> , ColorFX from Woodchuckers [https://woodchuckers.com/products/we-colourfx-liquid-dye-concentrate?\\_pos=2&\\_sid=189e5ff6a&\\_ssr](https://woodchuckers.com/products/we-colourfx-liquid-dye-concentrate?_pos=2&_sid=189e5ff6a&_ssr) or Woodessence (Canada) <https://www.woodessence.com/Dyes-Pigments/ColorFX-Dye-Concentrates/ColorFX-Dye-Individual-Bottles>, Chestnut or equivalent