

# Cloud Library

## Project Narrative:

Beyond a physical place to leave a book take a book, what is possible? The **Cloud Library** prototype will promote community and literacy by cultivating an online micro-social book club. This neighborhood amenity comprised of many different ages, cultures, and economic classes becomes **a local venue for sharing thoughts and inspirations** discovered along a literary journey. This prototype tests the limits of maximizing usable storage while keeping within the given budgetary constraints. This inherently strong simple geometry is self-supporting through an aggregation of **cylindrical modular units**. This **cloudular** design becomes a playful interactive sculpture with **a multitude of configurations** ready to be personalized through form and decoration to become part of your neighborhood. Enjoy!

## Purchased Material:

- (1) 14" diameter by 60" galvanized metal duct
- (1) 48" by 48" marine grade cedar plywood
- (3) 1/8" thick 18" by 32" sheets of colored plexi glass
- (1) box of self tapping pan head screws
- (1) package of neoprene washer gaskets
- (1) tube of clear exterior sealant
- (1) package of 1/4" by 1/2" galvanized hex bolts with nuts
- (1) package of automotive protective edge molding
- (1) pier block with integral post base
- (1) can of spray paint
- (1) can of contrasting color spray paint
- Door edging from an auto parts store

## Reused Material:

- 2' of reused nylon strap cut to make top hinge
- approx 1x12 x depth of storage cubby scrap wood shelving any species
- letter stencils for spray painting lettering on sculpture

## Tools Needed:

- saw horses
- 48" by 48" smooth with no staples or fasteners scrap ply wood or sheet of mdf for work surface
- electric drill with metal and wood drill bits
- metal snips
- metal L square
- tape measure
- dremel with cutter bit for plexi-glass, circle guide recommended
- router with circle guide recommended
- marker

Total assembly time of 16 hours. Recommend having an assistant for cutting and assembly. The following are the recommended assembly steps.

1. Use 4x scrap wood blocking for insert into base cylinder.
2. Match height to inner diameter of cylinder.
3. Cut metal duct to desired depth for book shelving. Recommend 13" to 15" section of duct. Snap duct together. Careful, edges are sharp, use gloves!
4. Notch bottom of the base cylinder to fit around the metal standoff of the pier block.

5. Cut wood disks to match and rings if using transparent plexi-glass doors. We highly recommend using a router with a circle jig.
6. Place one ring at the back of the base cylinder so it's firmly attached to the framing. You'll need to leave the other side open to attach the cylinders together later.
7. Place rings at each end of tubes and inset 1 1/2".
8. Pre-drill through metal into wood disks or use self tapping screws with gaskets, metal roofing screws work well here.
9. Now the cylinders are done it's time to decide the configuration. Lay the pieces flat and play around. Once you have a pattern you like (and all the cylinders seem supported) drill for the bolts to attach them together. We recommend at least two per tangent.
10. Before attaching them together be sure to place rubber gasket material around the bolt holes to keep water out.
11. Fit the door edge material around the cut ends of the ducts.
12. If you're going to paint now would be the time, be sure to use primer first.
13. Stand the base upright and start putting them together. Remember that you could stagger them from each other.
14. Now attach the final solid ring to the other side of the base cylinder.
15. All that left is to insert the shelving and attach the Plexiglas doors, we like using a heavy nylon strap material for a top hinge.





