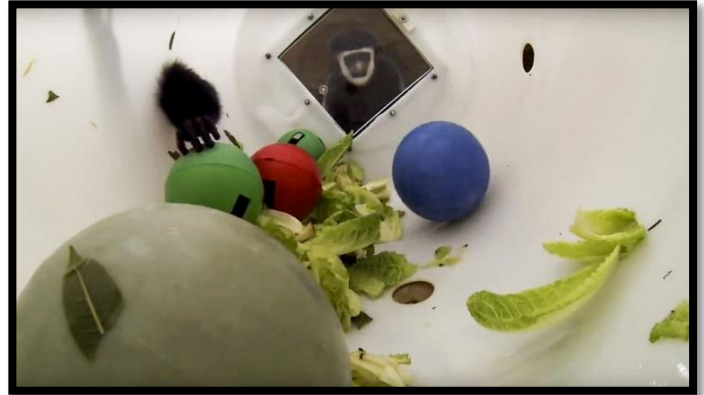




Rolling Barrel Feeder Instructions

Adapted from instructions submitted for the Hose2Habitat Enrichment Contest 2015.
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General Description: A barrel feeder that allows animals to see food through window at the end, but can only get through holes in the side (where they can feel, but not see, the food. These instructions and photos are for the device created device from a 55-gallon barrel. Smaller versions can be made from 30-gallon barrels. The polycarbonate is from old shelves in animal holding areas and scrap polycarbonate.

Species: Can be used with large monkeys and apes, especially when food is mixed with a foraging substrate or put in feeders which are then placed inside of the barrel. Hoofstock, large carnivores, and aquatic species, and other species with smaller holes, as it releases small pieces of food as the animals roll it around the exhibit.

Safety Concerns: Holes cut in barrel should be sized so not to present a risk for an animal getting a body part entrapped. Use judiciously around infants and small animals who could be injured if they fall or are dropped onto the holes. Polycarbonate is used for the panel as it is extremely durable and all hardware has been countersunk to prevent metal from making contact with exhibit windows if the barrel is thrown by the animals.

Tools Needed

Jigsaw
Drill
Drill bits: straight, hole, countersink
Router

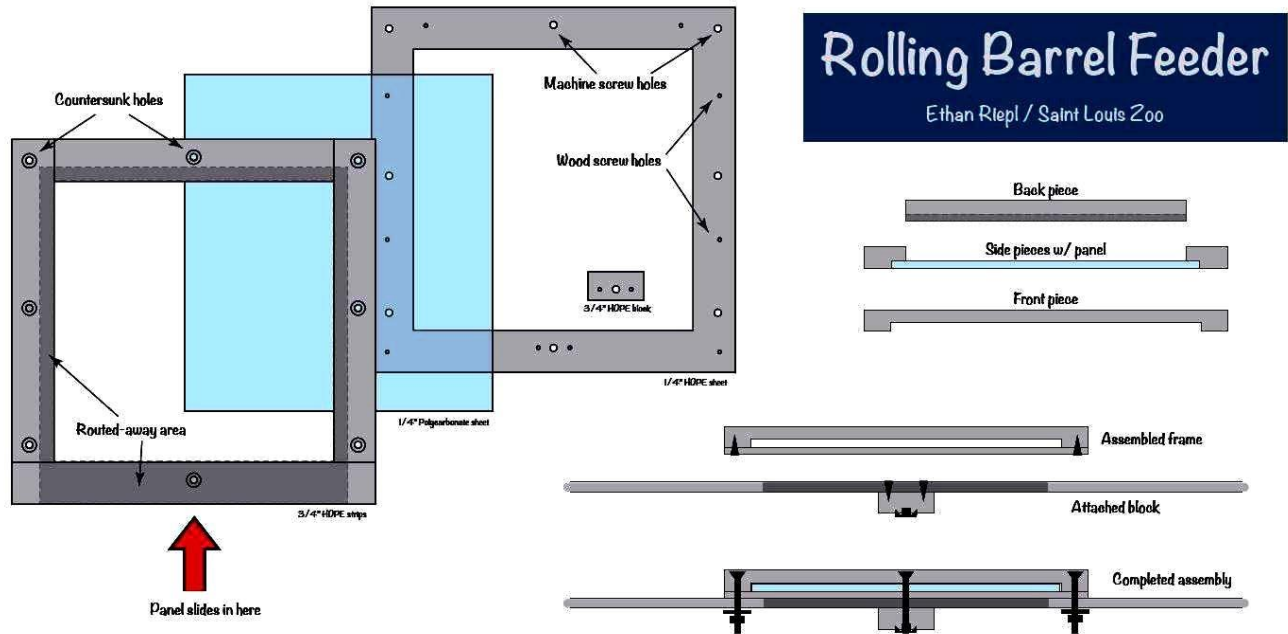
Materials Needed:

- (1) 10"x1.5" strip of 3/4" HDPE
- (1) 13"x1.5" strip of 3/4" HDPE
- (2) 11.5"x1.5" strips of 3/4" HDPE
- (1) 2"x1" block of 3/4" HDPE
- (1) 13"x13" sheet of 1/4" HDPE
- (1) 11"x12" sheet of 1/4" Polycarbonate
- (8) 3/4" wood screws
- (8) 1/4-20 flat head Philips machine screws
- (1) 1/4-20 t-nut
- (7) 1/4-hole 1" diameter washers
- (7) 1/4-20 hex nuts



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Construction of “window” shown in figure above

STEPS:

1. Using a jigsaw, cut a 10”x10” hole out of the end of a 55-gallon polyethylene barrel and a 10”x10” hole out of the center of the ¼” piece of HDPE.
2. Using a router, cut away a ¼” deep, ½” wide indentation along inner edge of HDPE pieces to accommodate polycarbonate panel; cut indentation all the way through on 13” strip to form archway for panel to pass through.
3. Lay pieces in place and attach ¼” sheet of HDPE using ¾” wood screws, forming a sleeve that the polycarbonate panel should slide smoothly into.
4. Using ¾” wood screws, attach small block of HDPE to the inside of the barrel, in the middle of a side along the edge of the opening.
5. Clamp assembled sleeve to opening of barrel (aligning slot opening above block on inside) and drill ¼” and countersink holes around frame.
6. Thread machine screws through holes and secure on inside of the barrel using washers and hex nuts.
7. Slide polycarbonate panel into place and drill (and countersink) ¼” hole through frame, panel, barrel, and block.
8. Remove panel and hammer t-nut into the created hole in the bottom of the block; this removable screw serves as the locking mechanism for the door.
9. Use hole saw to cut holes around the sides of barrel as desired.