

D-cut motor attachment project

Project Make

Due: 4th period, Thursday 1/7/21 midnight
3rd, 7th, Friday 1/8/21 midnight

Often electric motors have a special shaft that allows someone to attach a fan or other mechanism on the end in order to have it turn cleanly. One type of shaft ending is called a D-cut. Here is a motor and a close up of its shaft ending:

Motor:



Shaft D-cut close up:

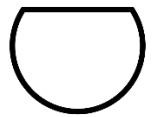


Your task today:

In Tinkercad, design an interesting fan blade, propeller, or other attachment that has a D-cut hole in the middle where it would attach to a motor.

Requirements:

- Your creation must use at least 10 objects (some can be holes, grouped, and therefore no longer visible, but you need to use at least 10 objects at some point in the creation of your propeller or fan.)
- Your creation must have a D-cut hole in the center of it that goes all the way through. The side view of the D-cut should look like the image to the right. Make it with a cylinder and a rectangle box hole.



Your creation must have three or more "blades" as part of the fan or propeller design.

For example here is a 5 bladed fan:



and a 3 bladed fan:



- The blades need to be evenly distributed as in these actual fan blade examples.
- It doesn't have to be a fan or a propeller, just something that could attach to a motor using a D-cut shaft.
- Your creation has your name on it somewhere (first name is fine).

Turn your creation in on the Google Classroom as a share link when you are done. Have fun, good luck!