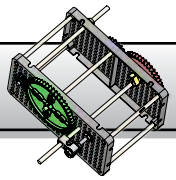


# Gear Box Build



## Parts Required

Two Hole Plates

Five 12in (300mm) Dowels

One 10, 20, 40 and 50 Tooth Gear

Two Stop Clips

One #10 Washer

## Tools Required

Cutters: Multicutters, pruning shears or a saw

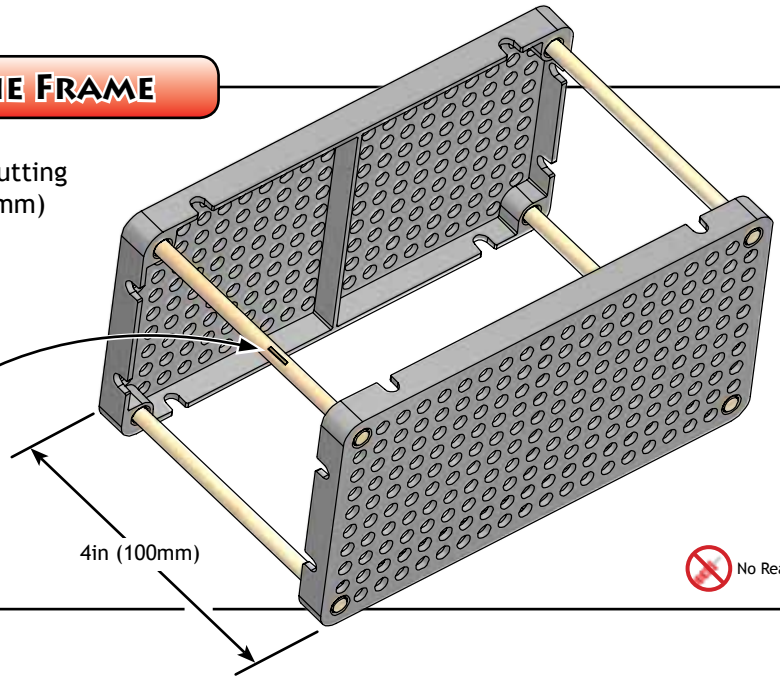
Phillips Screwdriver

Pliers or a wrench to grip #10 square Nuts

## 1, Create the Frame

Create the frame by cutting and inserting 4in (100mm) dowels into hole plate corners.

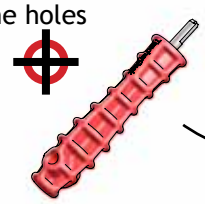
Tip: Make a mark on this dowel. It will be used as a reference.

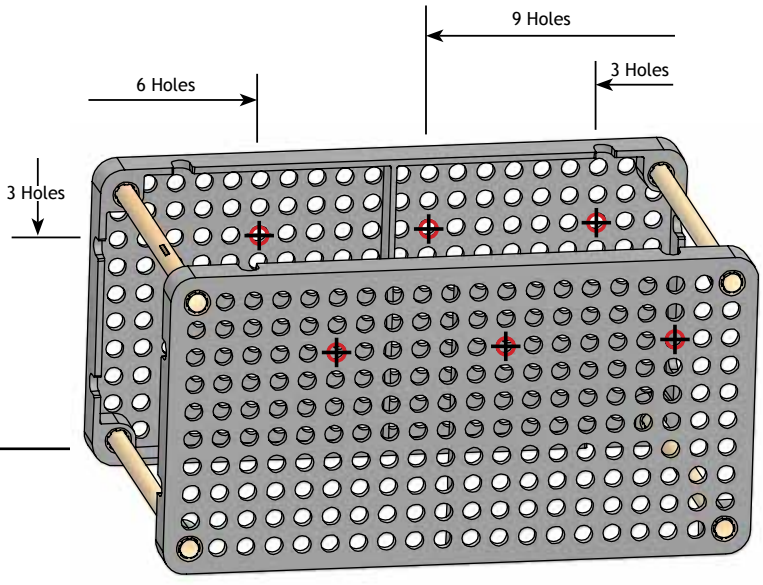



## 2. Ream the Frame

Ream the holes in the frame in which dowels will need to spin freely.

Only Ream the holes shown with a

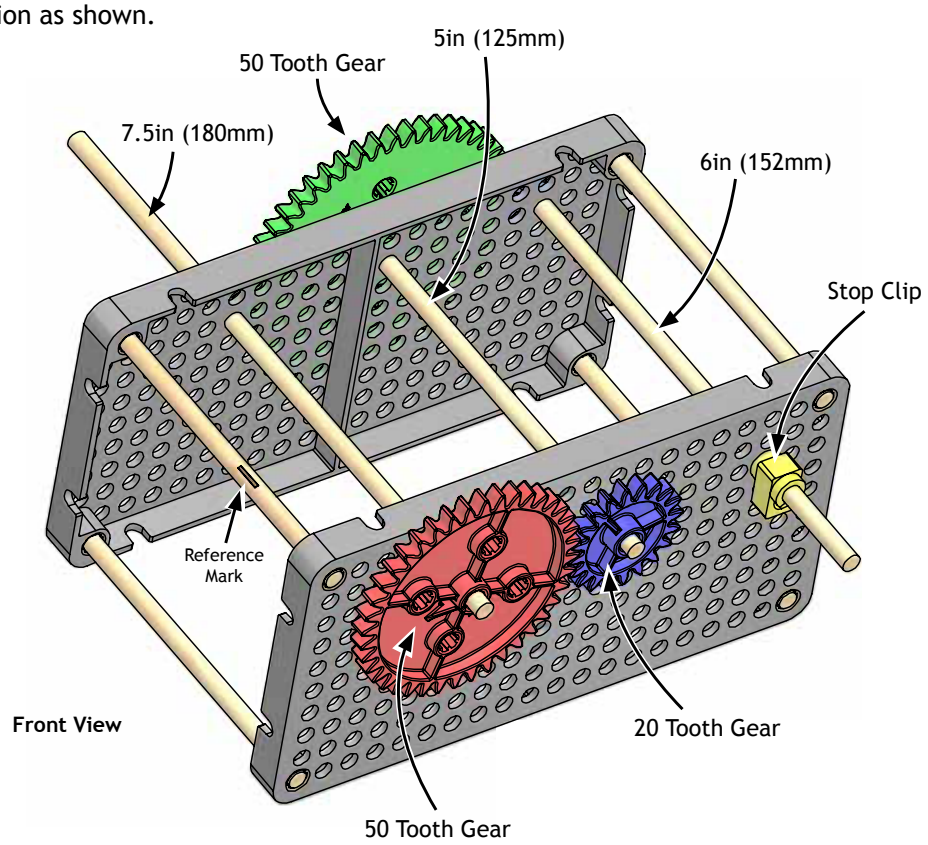




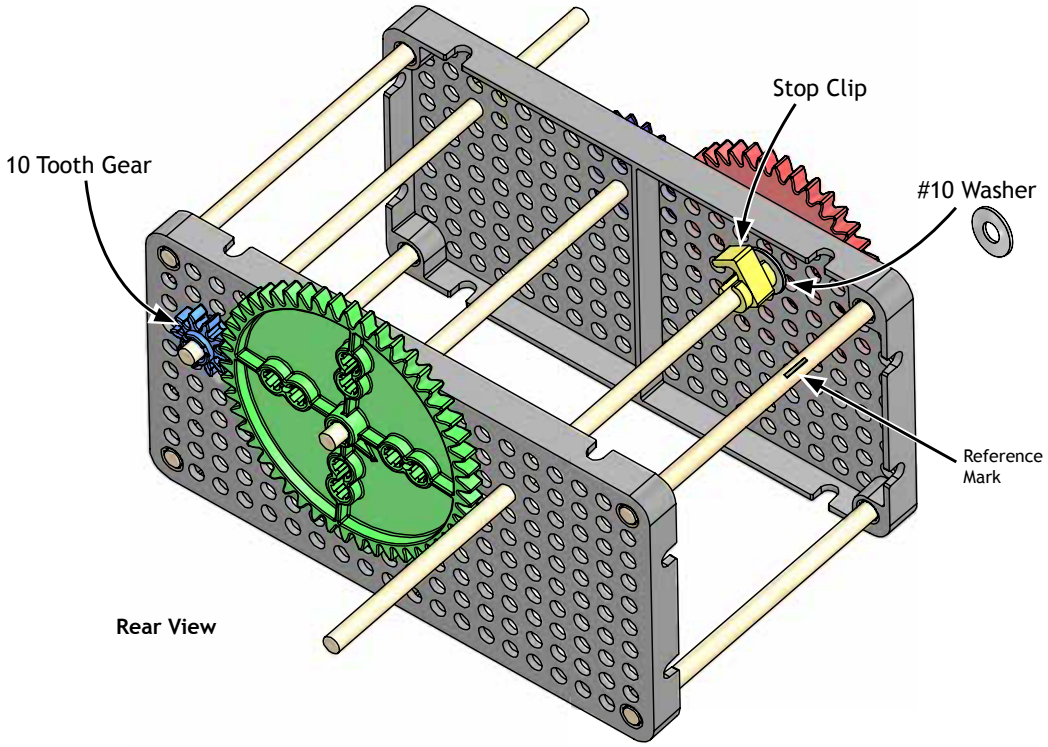
## 3. Gear It

Create a gear transmission as shown.

Caution:
Do not ream
the Gear Holes




**Front View**

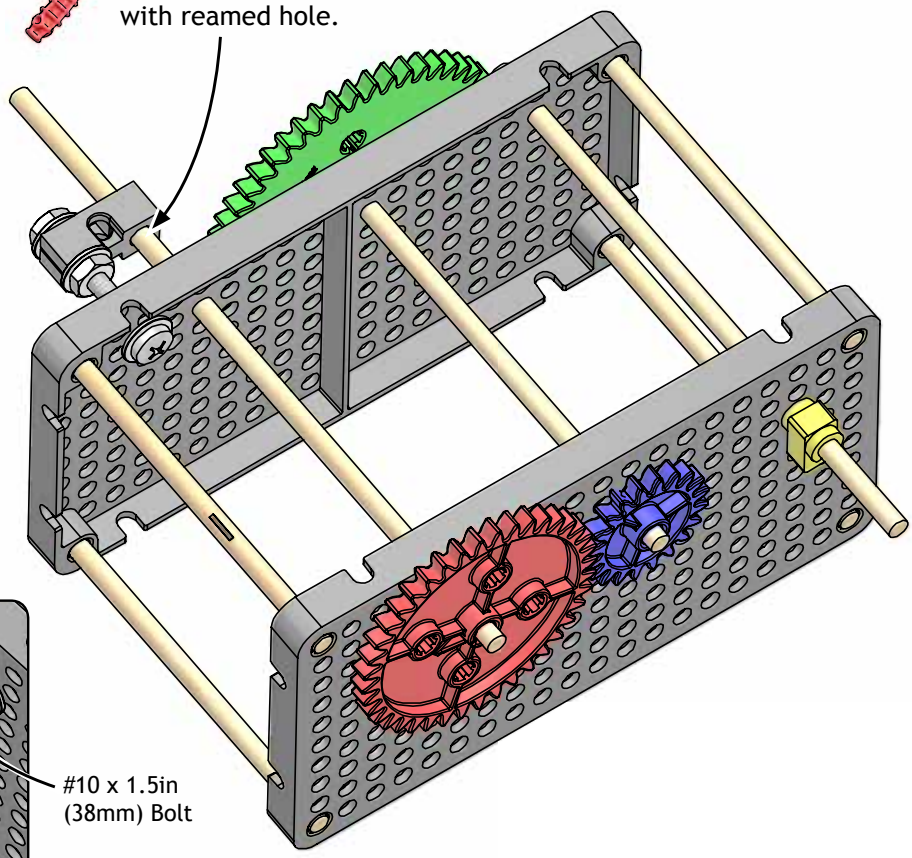



**Rear View**

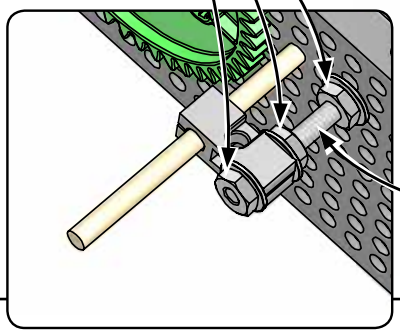
## 4. Optional Drive Shaft Brace

This optional (not included) brace can keep the drive shaft from flexing.

Perpendicular Block with reamed hole.



#10 Nuts and Washers



#10 x 1.5in (38mm) Bolt

The Gear Box is done!

## Experiment. Improve It.

Now that you know how a gear box goes together, you can experiment and create your own design to best fit your turbine.