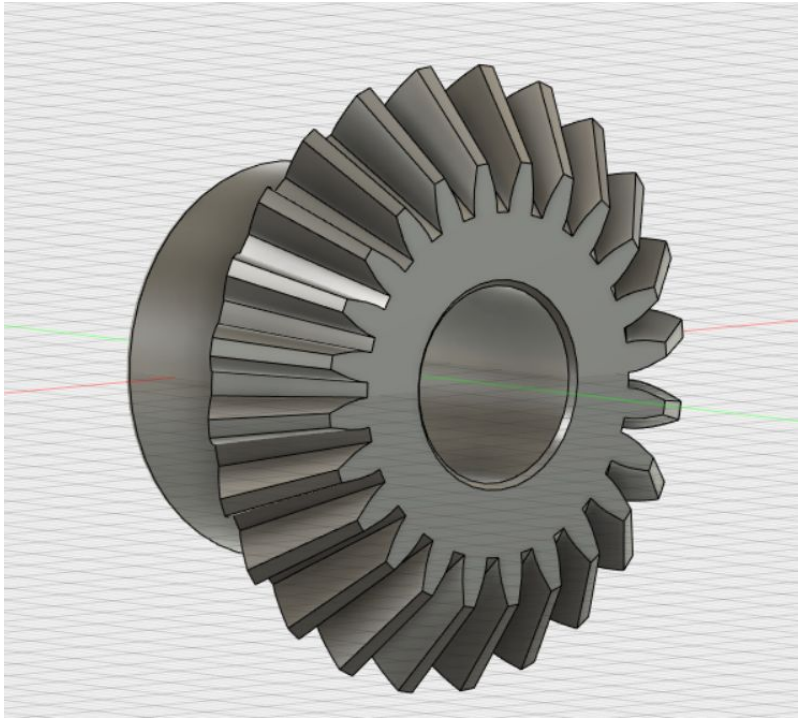
Idea for EMEH

Mayukhmali Das

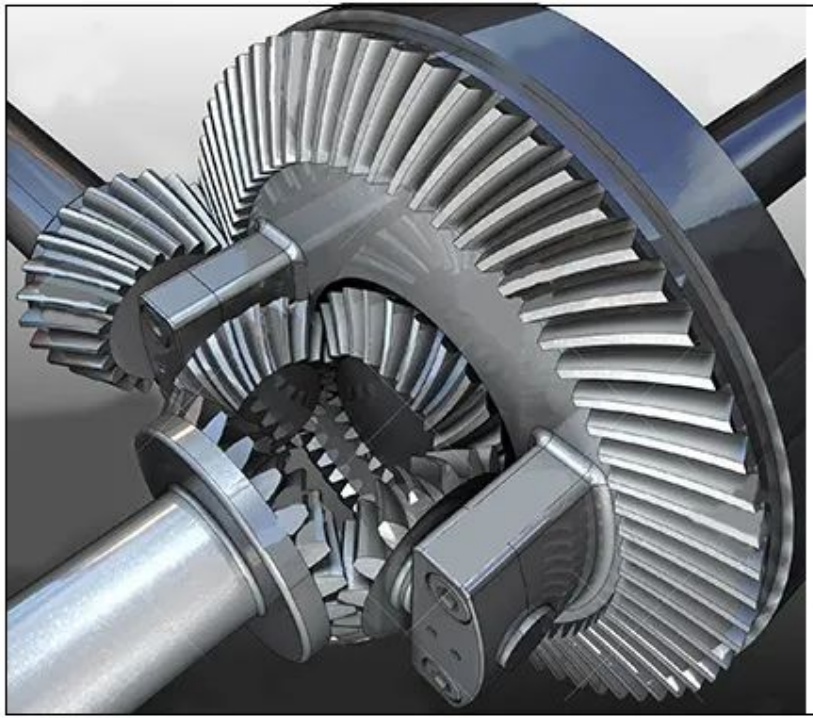
The first part of my design will be a gear to convert horizontal rotational motion into vertical rotational motion.
Components for this design are two gears- one is 16 pitch 12 teeth and other is 24 pitch and 12 teeth.

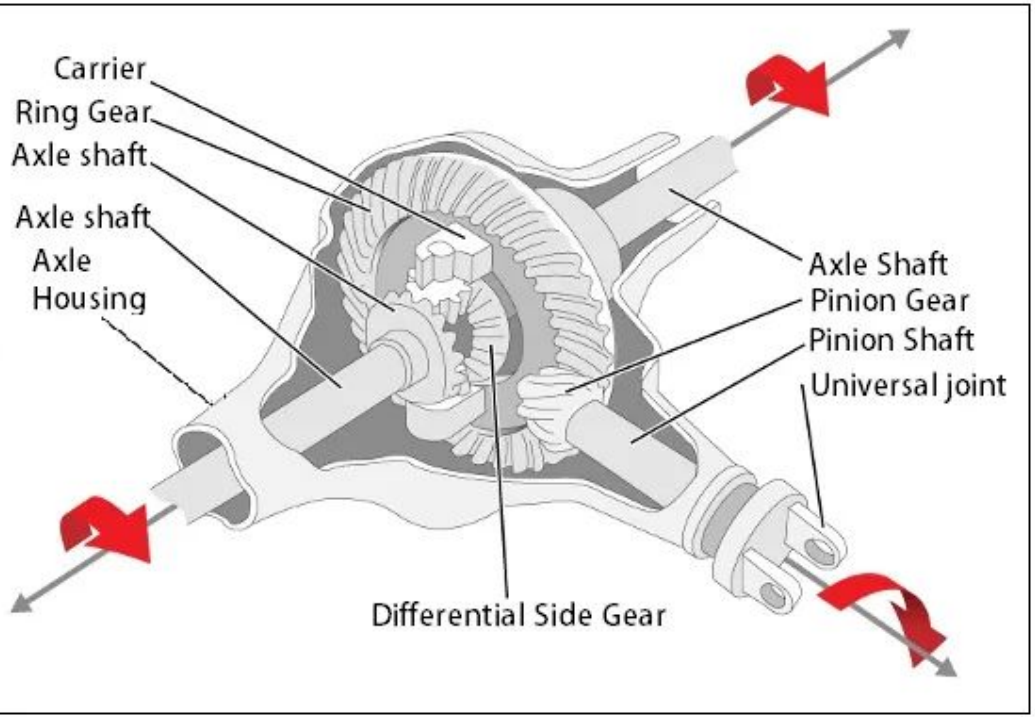


This is the first gear. This gear axis will be connected to the axle shaft of any transport device like Auto , Cars , etc.

The specifications of the gear is given below:

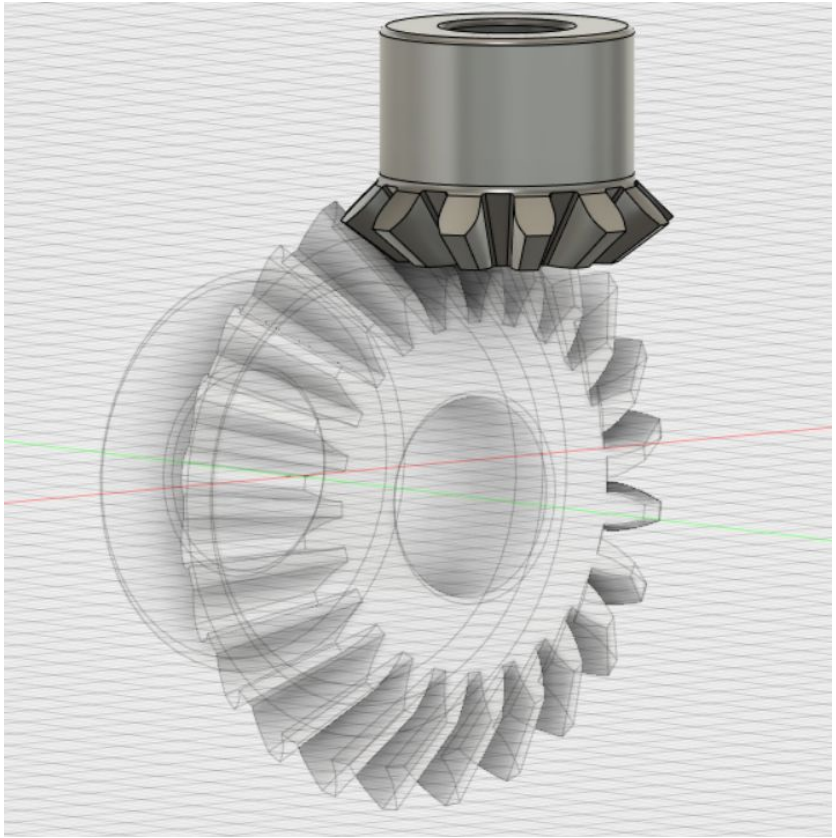
Gear Type	Miter
Component	Gear
System of Measurement	Inch
Bore Type	Round
Gear Pitch	16
Speed Ratio	1:1
Number of Teeth	24
For Shaft Angle	90°
Pressure Angle	20°



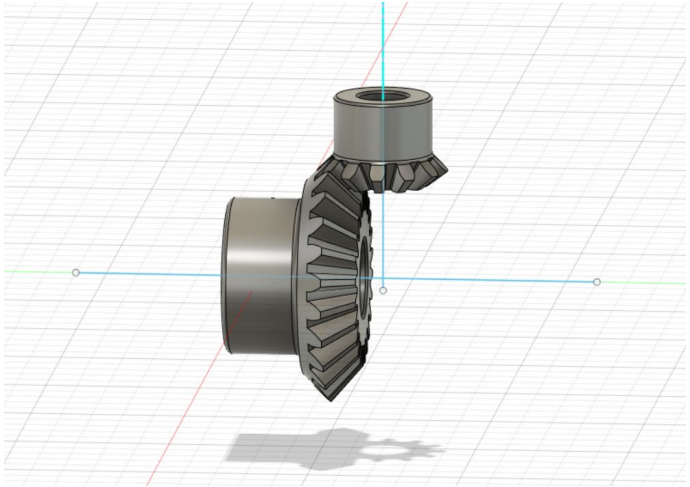


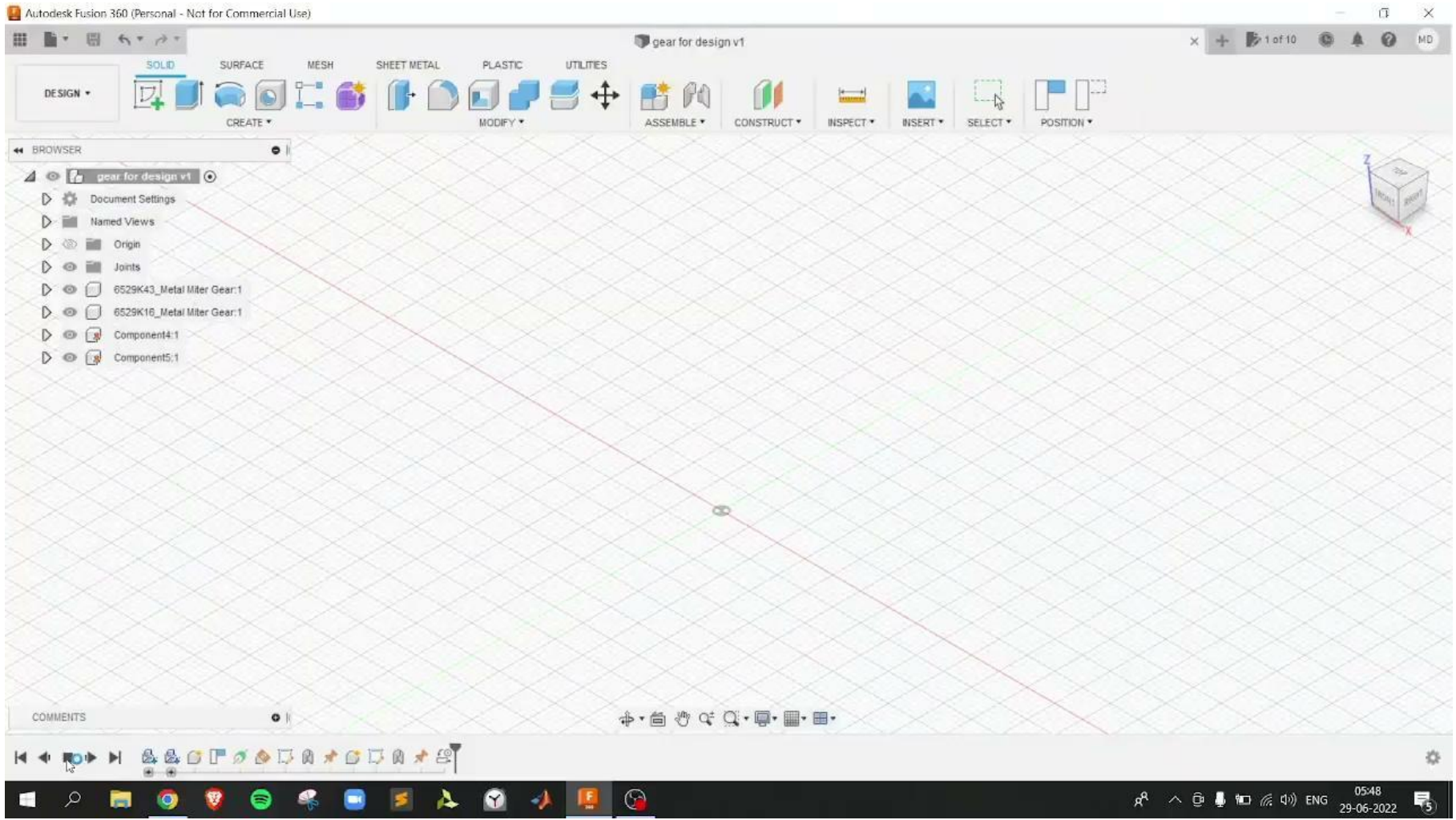
This gear will be attached to axle shaft of the differential system of a vehicle

Now the second part is another gear in perpendicular to the primary horizontal rotational motion gear. It has pitch of 16 and 12 teeths



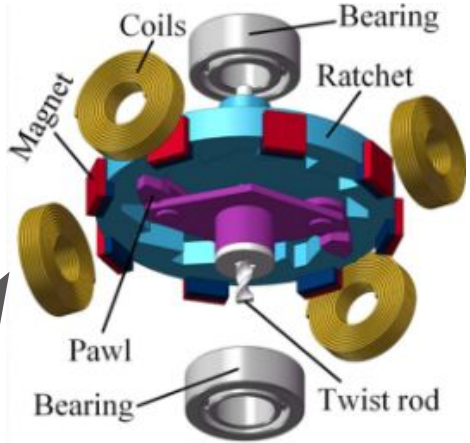
When the primary gear attached to the axle of the differential of a car rotates , the secondary gear rotates along a vertical axis. Thus converting horizontal rotational motion into vertical rotational motion.




Autodesk Fusion 360 (Personal - Not for Commercial Use)
gear for design v1
1 of 10
MD
DESIGN
SOLID
SURFACE
MESH
SHEET METAL
PLASTIC
UTILITIES
CREATE
MODIFY
ASSEMBLE
CONSTRUCT
INSPECT
INSERT
SELECT
POSITION
BROWSER
gear for design v1
Document Settings
Named Views
Origin
Joints
6529K43_Metal Miter Gear:1
6529K16_Metal Miter Gear:1
Component4:1
Component5:1
COMMENTS
ENG
05:48
29-06-2022

Now any transport vehicle reaches on average 20 km/hr speed. Thus the vertical rotational velocity we will be getting will be huge.

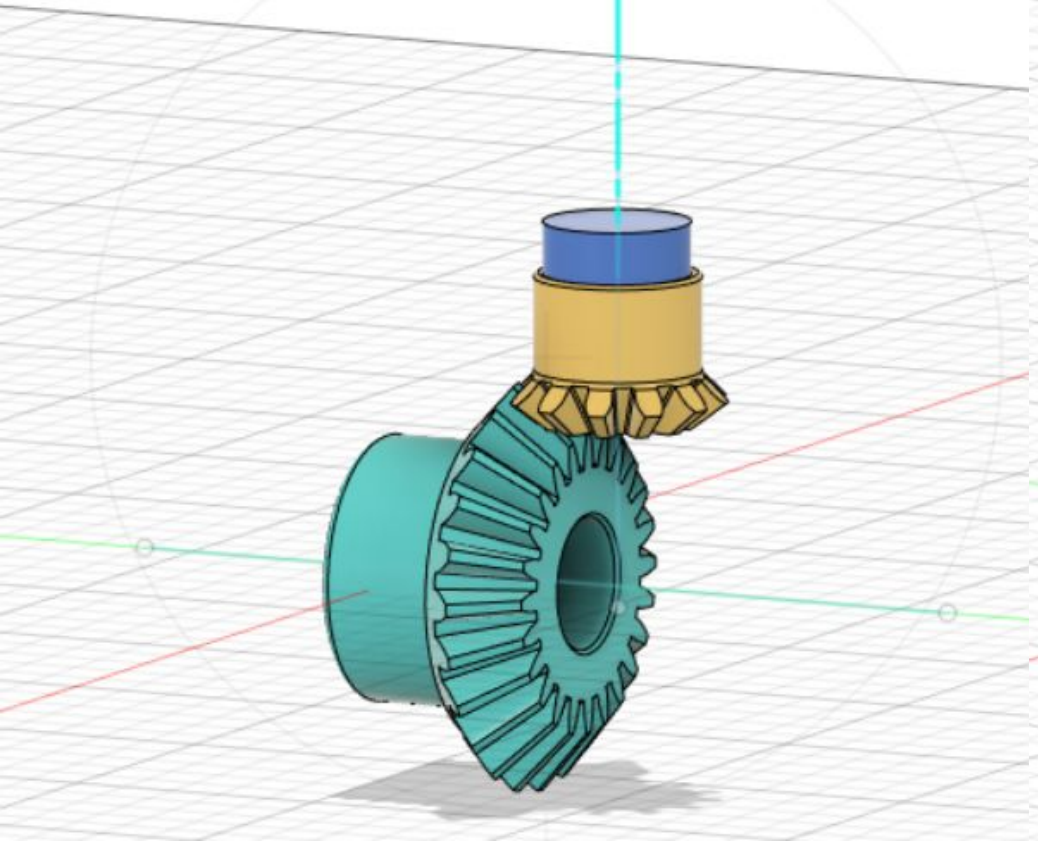
Now we will place our magnet on the top of the secondary gear. So we got a high speed rotational magnetic field. Now we have to design a coil arrangement and determine number of magnets we should use.

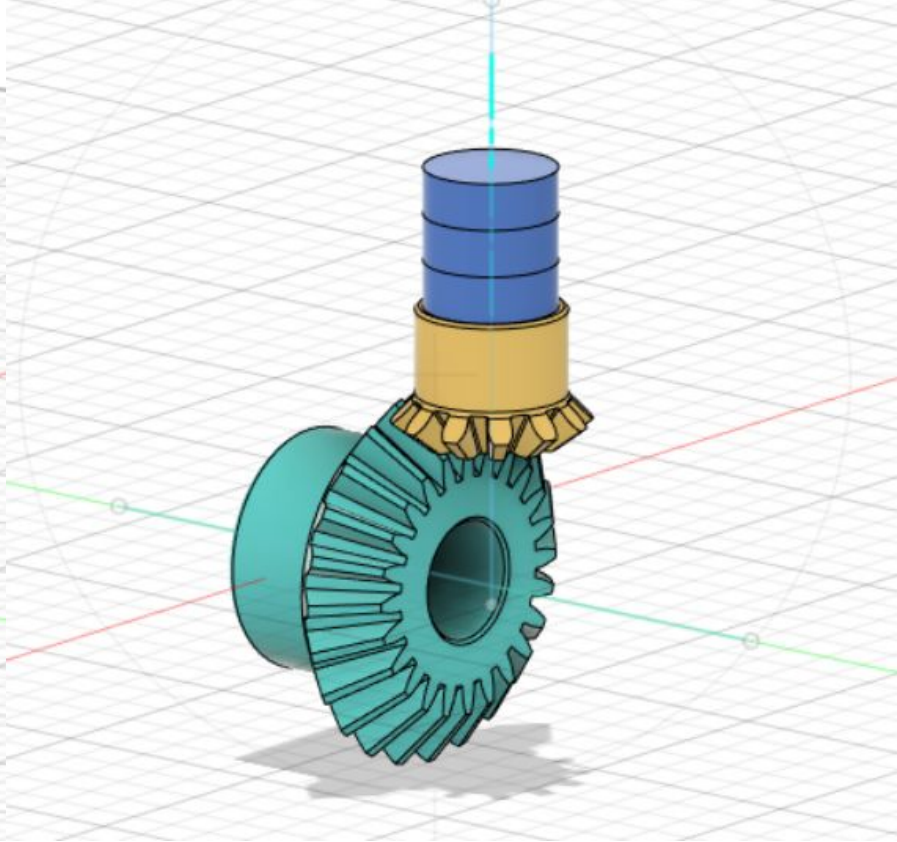


Coil arrangement for rotating magnet.

We will design a coil arrangement similar to these design for EMEH

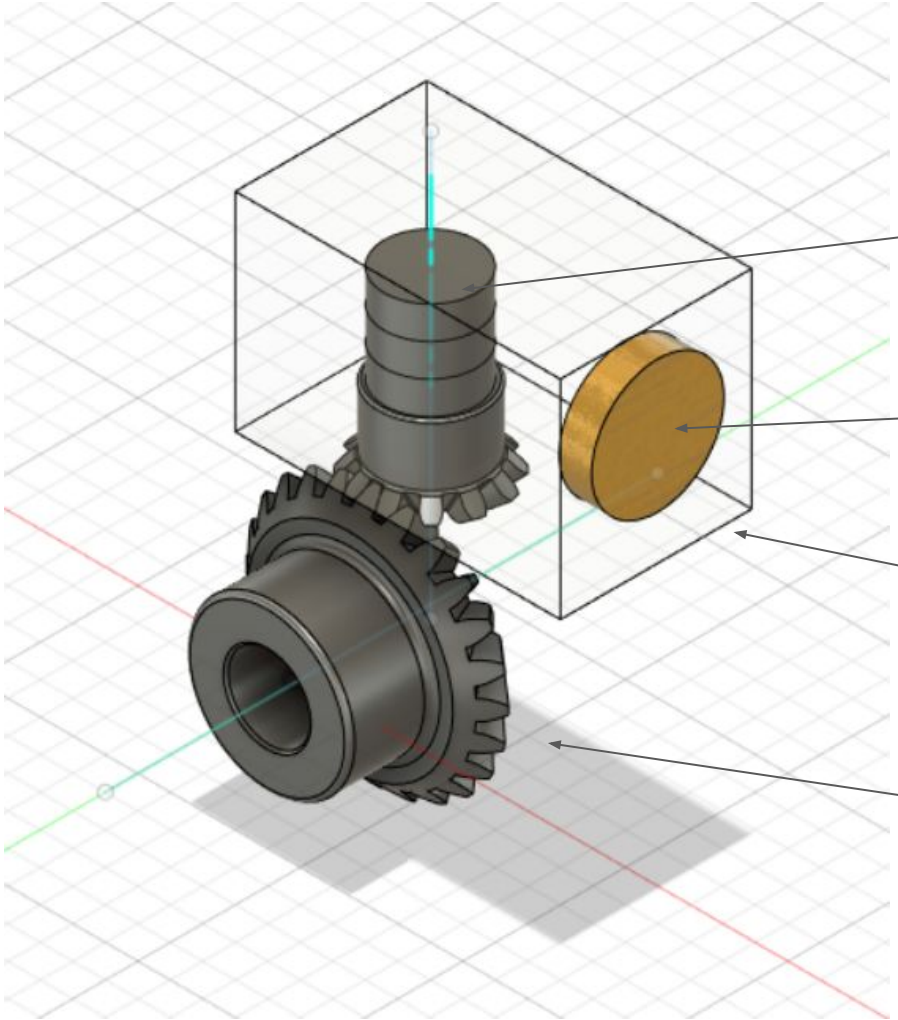
Also we will stack the magnets up and test for which number of magnets we are getting the maximum voltage





The deep blue cylinder represents the magnets. we can stack them up compare voltage generated

Design I propose

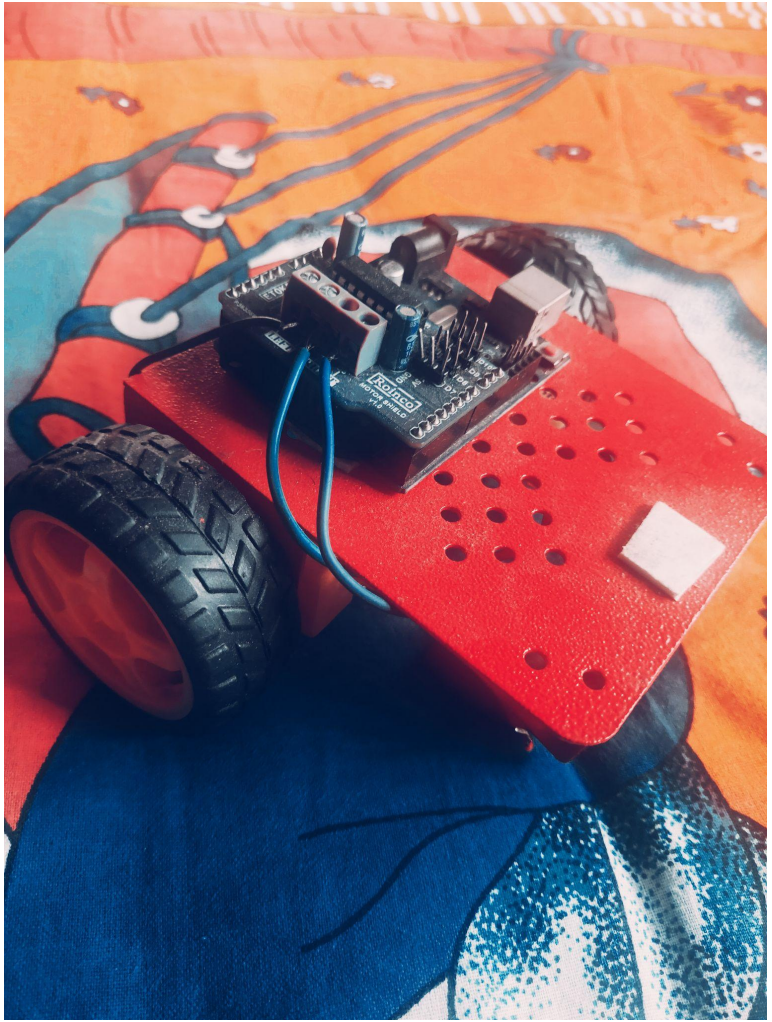


Magnets

Coil

Casing

Gear Arrangement



This is the arduino controlled car I have built. I can implement the design I mentioned in the previous pages ; using gear, magnet and coil to produce Electromagnetic Energy