



Next Generation Clock

Making A See-through Clock

Given that there are many people in the world who don't know how a clock works, we have decided that for our BE-1200 Final Project, we made a clock where people will be able to see how multiple gears work in tandem to tell us the time. With the help of this see-through clock, people will see gears move in real-time which will give them the opportunity to better understand the clocks.

Technical Approach:

The clock will operate by the movement of multiple gears, and the gears will be automatic and to do that, we decided to use motor.

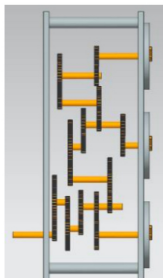
Results:

We built a fully functional clock that will be powered by a motor, and people will be able to see the movement of the gears through the transparent barriers.

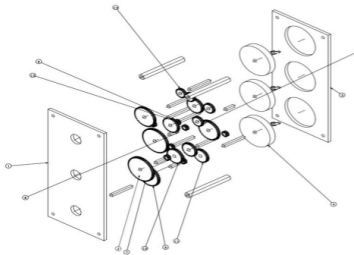
Gear Calculations: We are using 60 RMP motor, then we used 60 to 1 gear to convert to 1 RPM. After that, we used second to minute ratio, and then minute to hour ratio.



3D Printed Parts



Assembly



Exploded View

14	CONNECTGEAR	2
13	CONNECTGEAR	2
12	MIDSHAFT	8
11	CONNECTGEAR	2
10	38 TEETH	1
9	GEAR 48 TEETH	1
8	SMALLERSHAFT	4
7	GEAR 60 TEETH	2
6	12 TEETH	8
5	CLOCK NEEDLE 1	1
4	CLOCK FACE 1	1
3	CLOCK FRONT FACE	1
2	STANDOFF	4
1	BACKCLOCKFACE	1
PC NO	PART NAME	QTY

Parts List