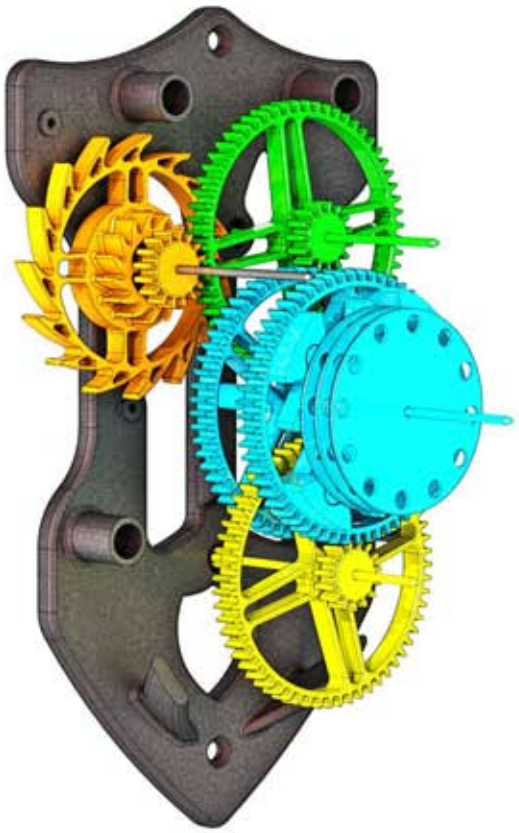
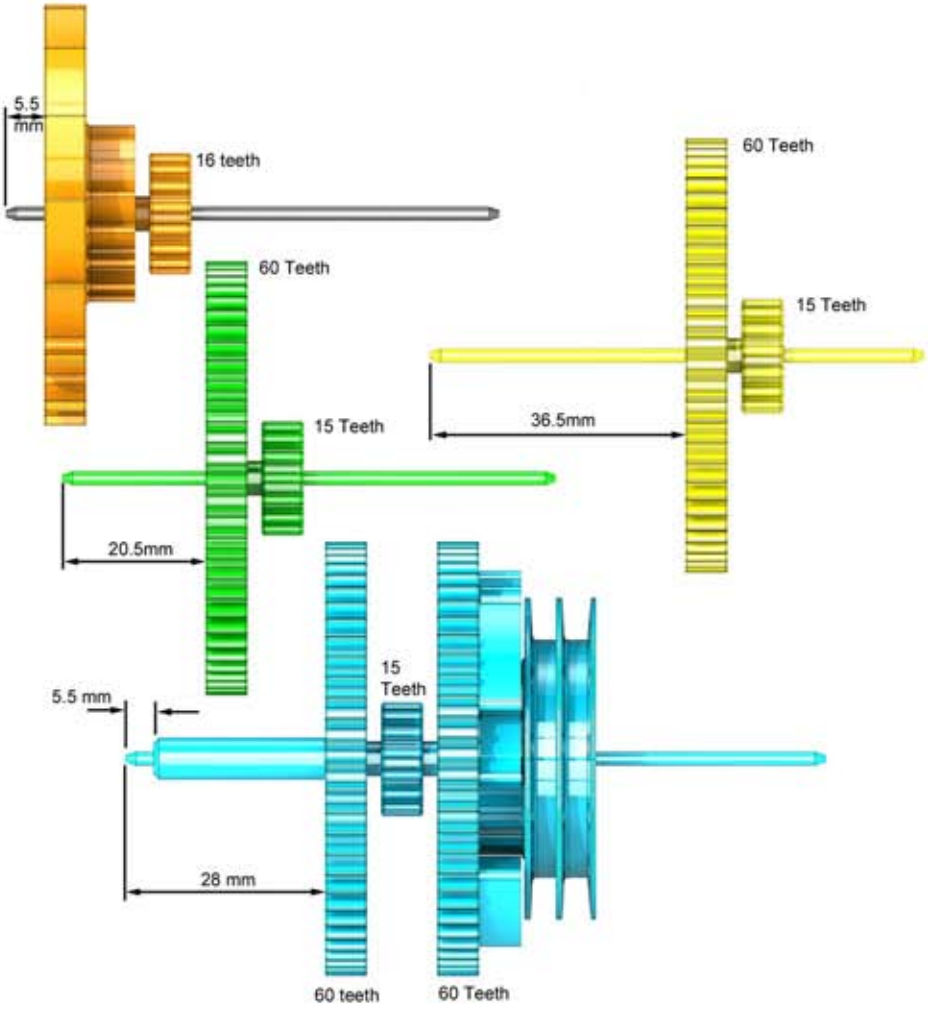
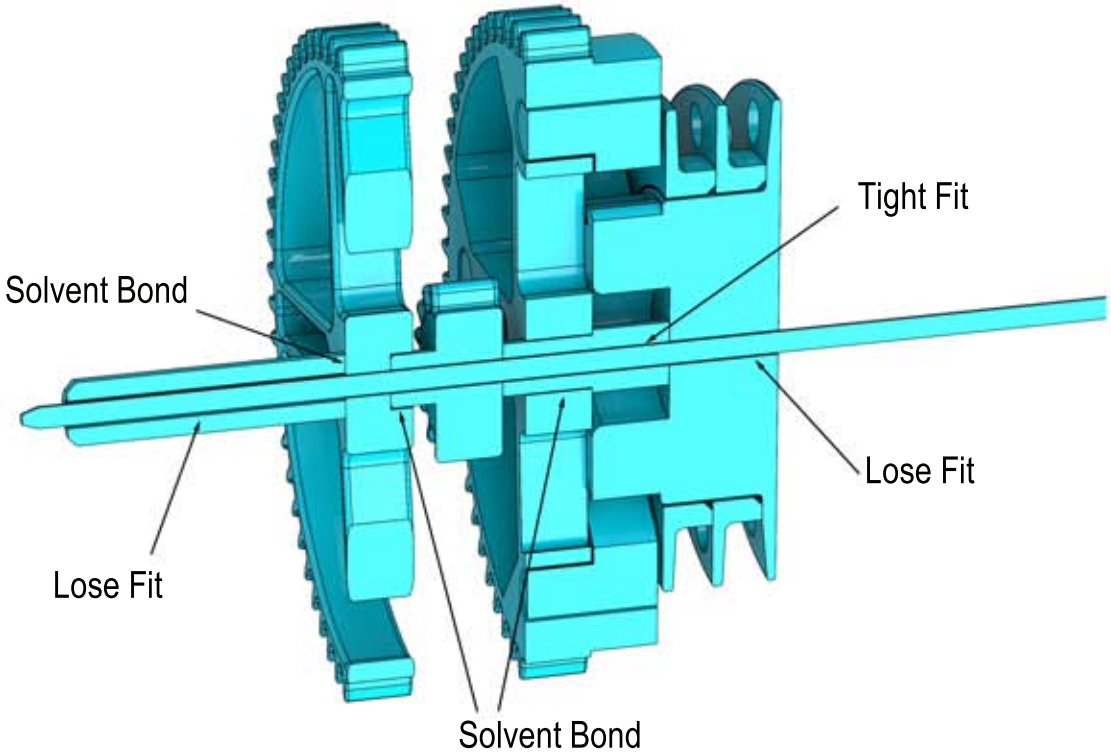
Brian Law's Wooden Clock 27 - FDM - 3D Printed Clock

Assembly Sequence

Stage 1 Solvent bond the small gears into the larger gears and Escape Wheel.







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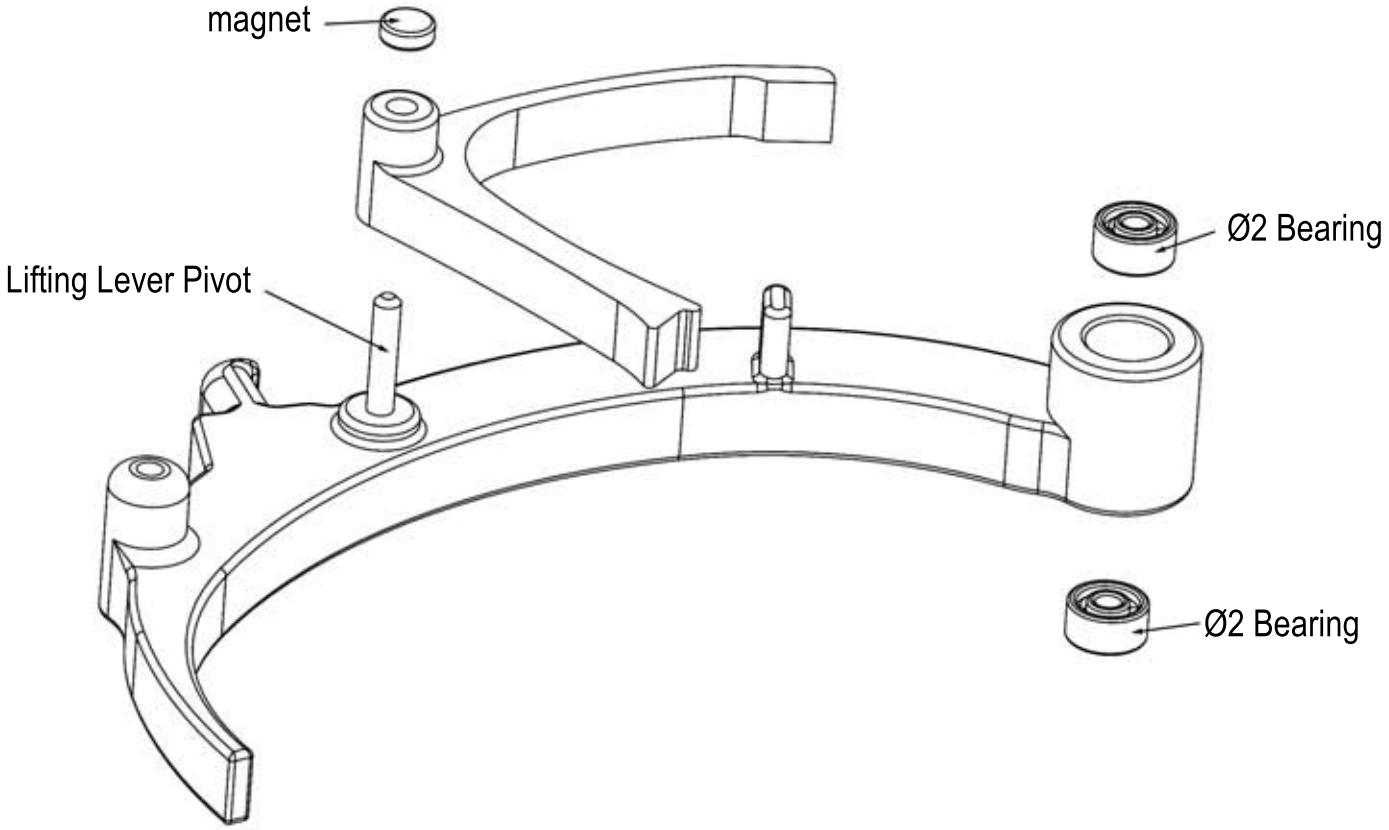
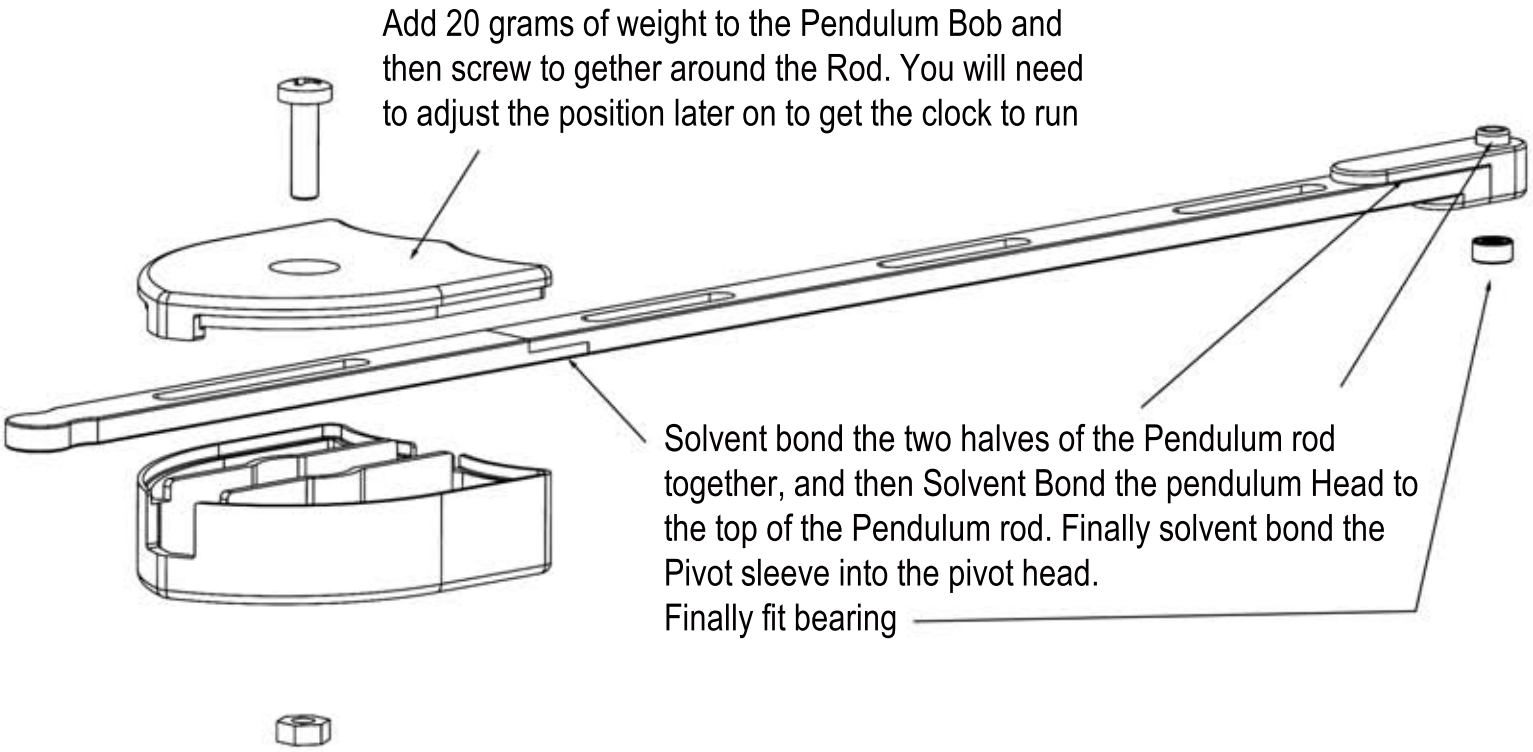
Assembly Sequence

Stage 2 Press fit the 2 Bearings Into either side of the pivot arm. Press fit the lifting Lever Pivot and them fit the Lifting Lever onto it, hold in position with small magnet.





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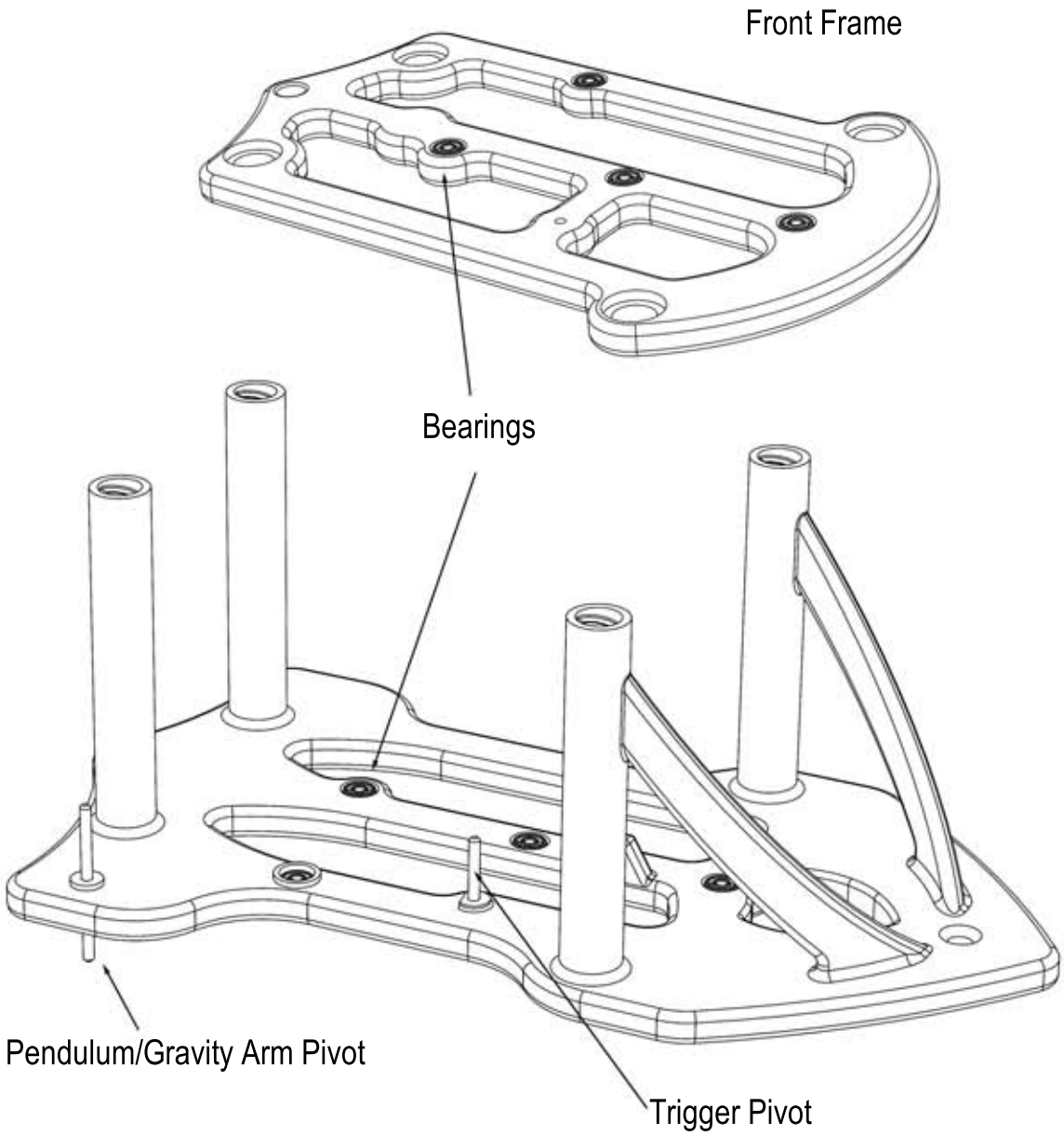
Assembly Sequence

Stage 3 Fit the 8 Bearings into the front and back frames. Fit the Trigger pivot and the Pendulum/ Gravity arm pivot. You can also fit the Wall spacers to the rear of the back frame but this is not actually shown here.



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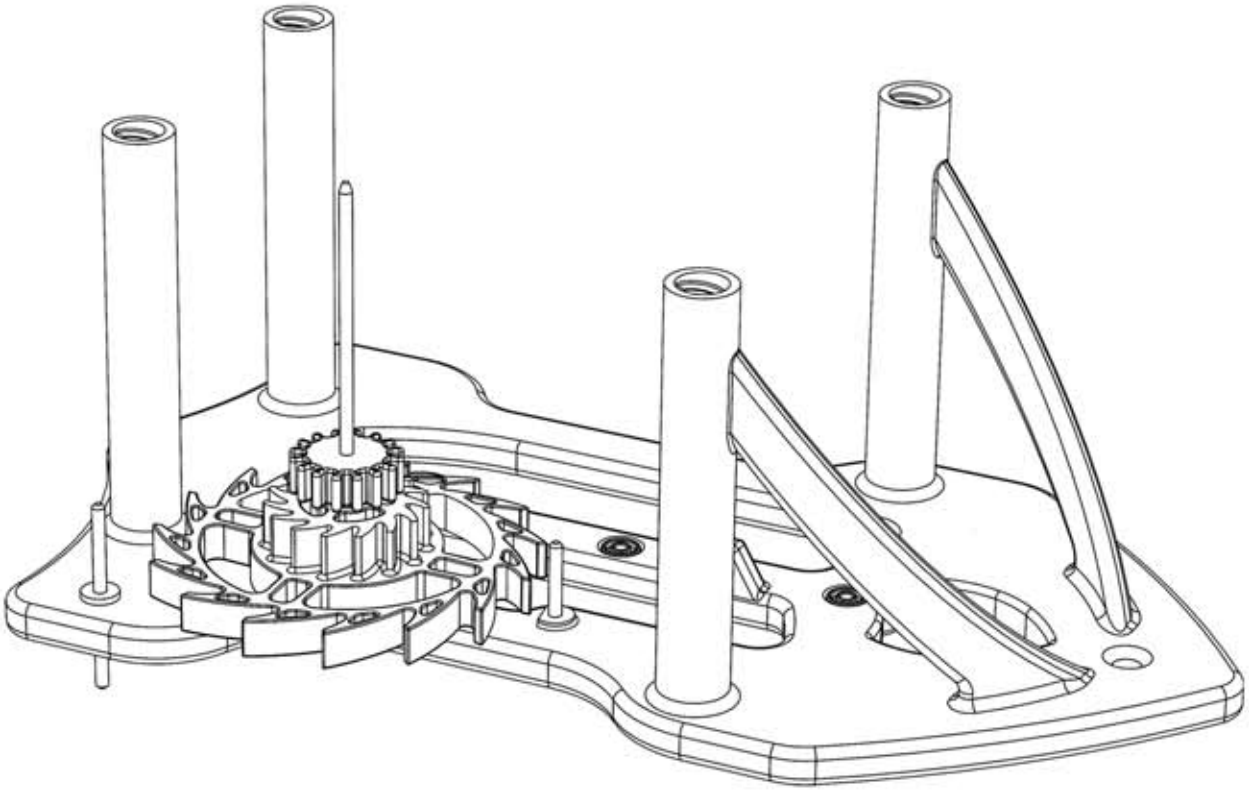
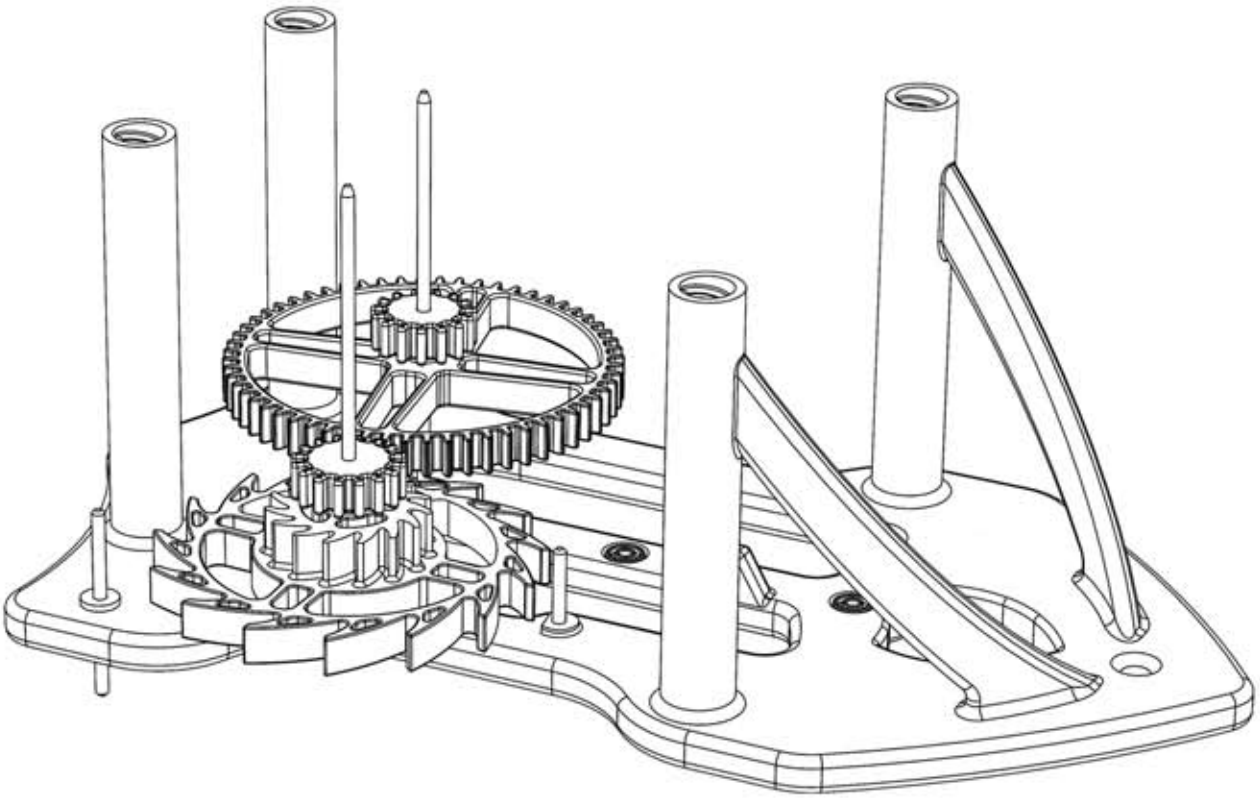
Assembly Sequence

Stage Fit the Escape wheel and the mating Intermeadiate gears into the bearings.





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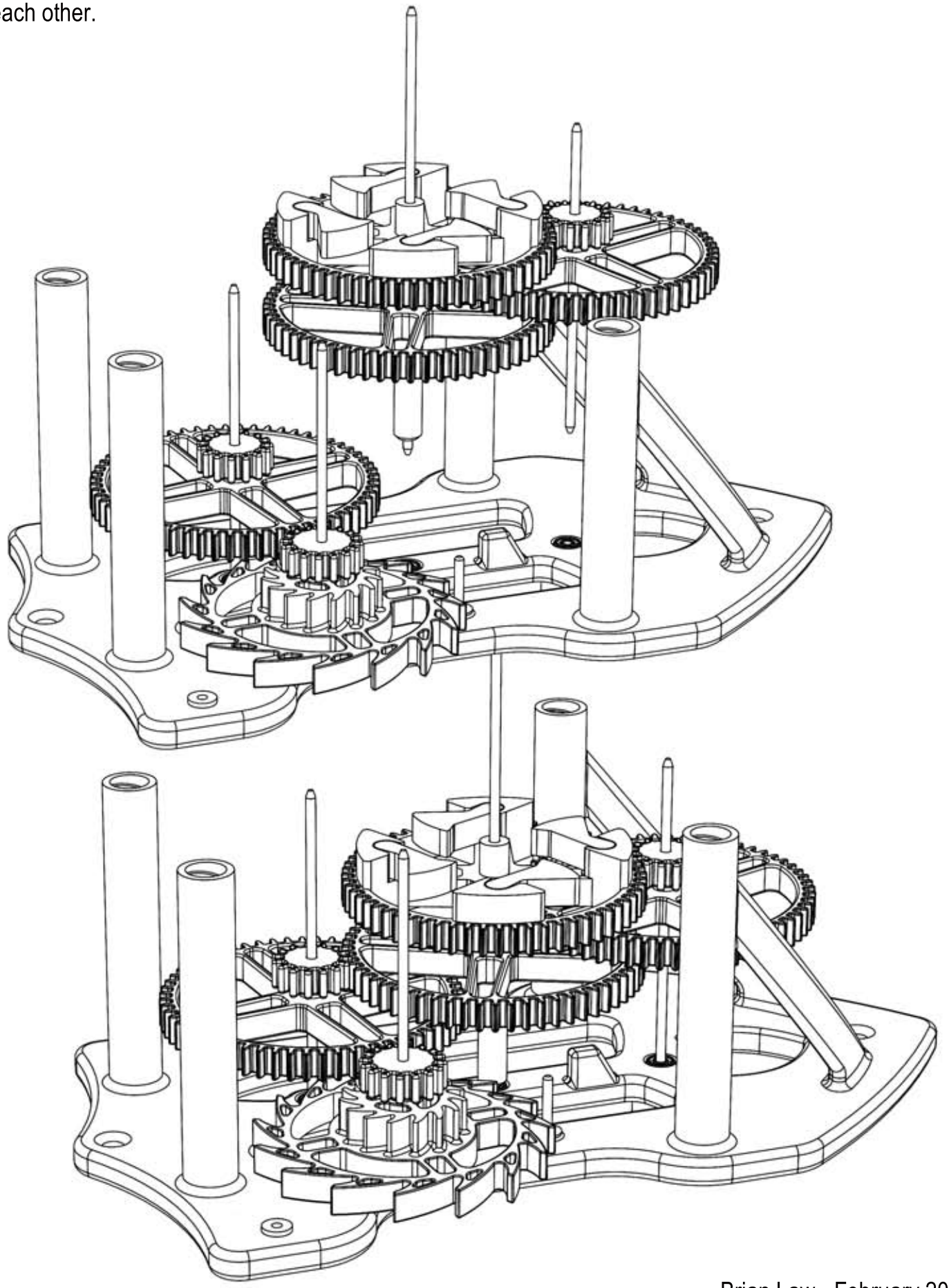
Assembly Sequence

Stage Fit the bottom Intermediate gear and the two parts of the Drive Gear together as shown and then fit them into their bearings. You have to do this together because of the way they nest with each other.



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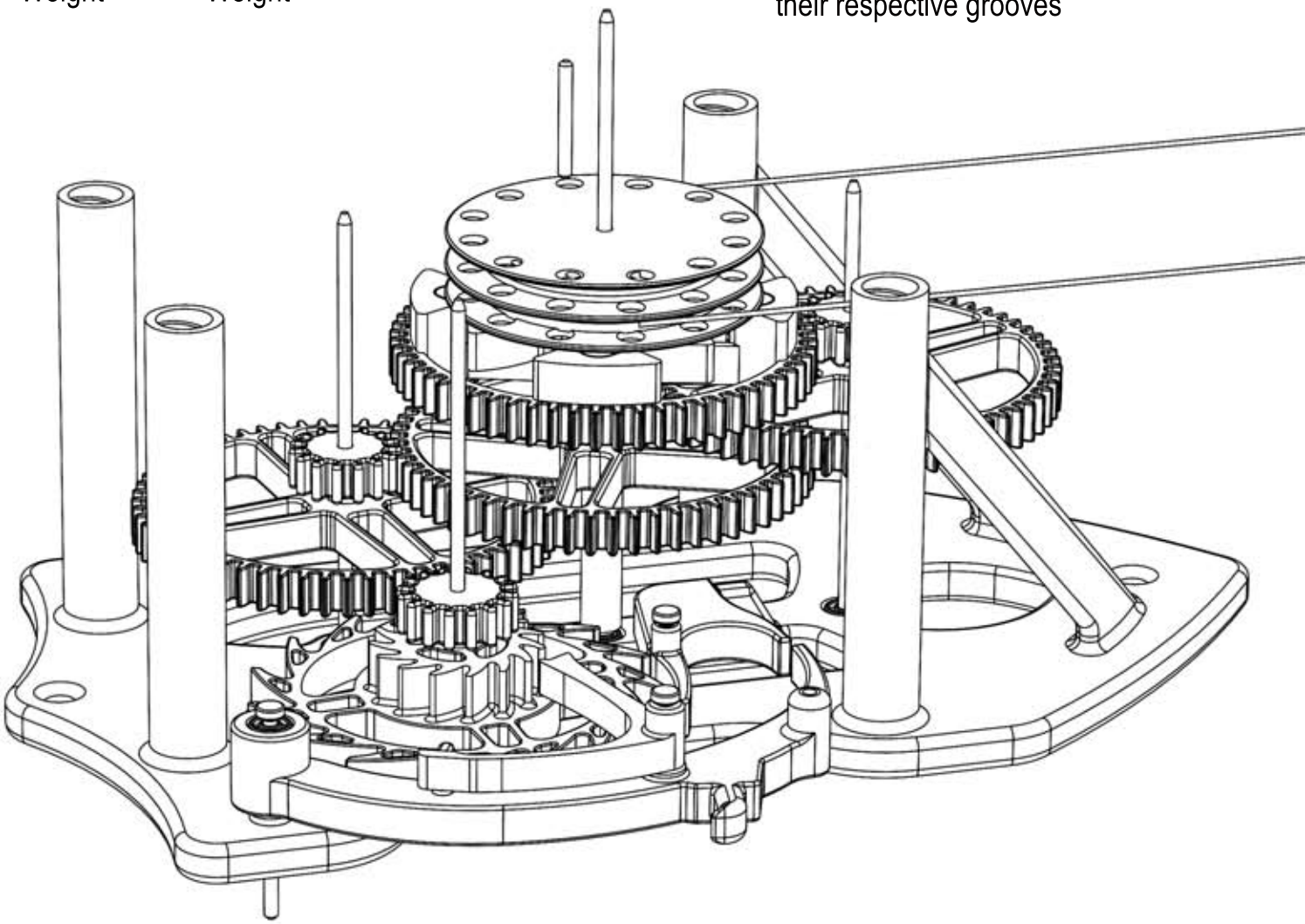
Assembly Sequence

Stage Fit the ratchet with the cords wrapped around the pulleys in the manner shown

Main Weight

Counter Weight

It is best to clip these cords together cloce to the pully whilst assembling so as to avoid the cords slipping out of their respective grooves



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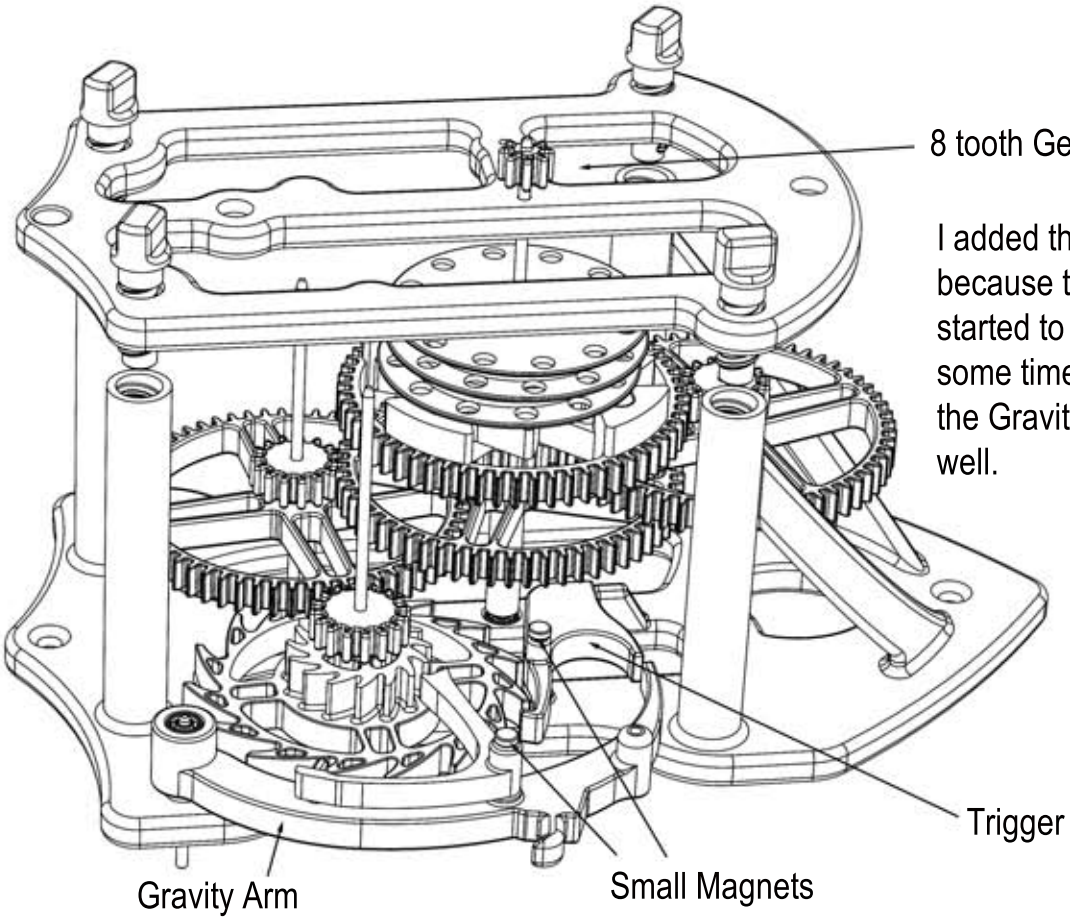
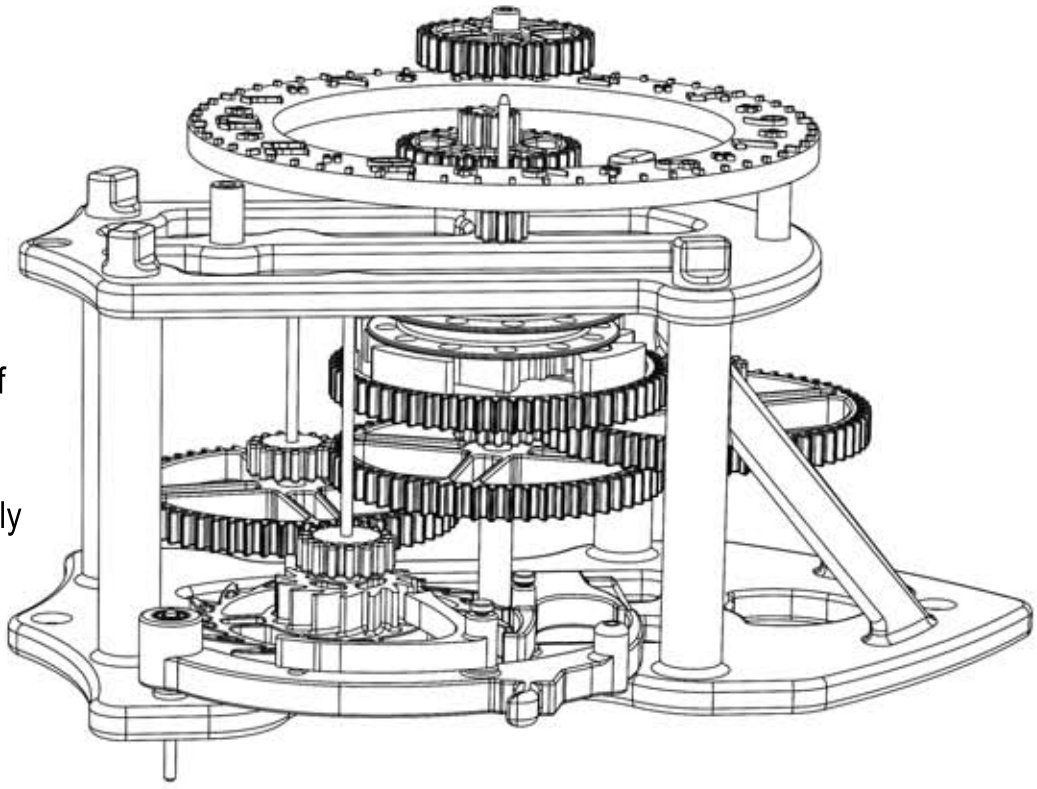
Assembly Sequence

Stage Fit the Fit the assembled Gravity arm and the Trigger, and then the front Plated is lowered over the protruding shafts until it engages on the ends of the shafts, and then it can be screwed into position with the 4 plastic screws. Then fit the small 8 toothed gear onto the main shaft and push down until just clear of the Front plate.



I added the magnets to my build because the Trigger and Lifting arm started to move after working for some time. You may need them on the Gravity arm and Pendulum as well.

Youn can now add the rest of the parts to the front of the clock, the two hour gears the Dial and its spacers and finally the hands.



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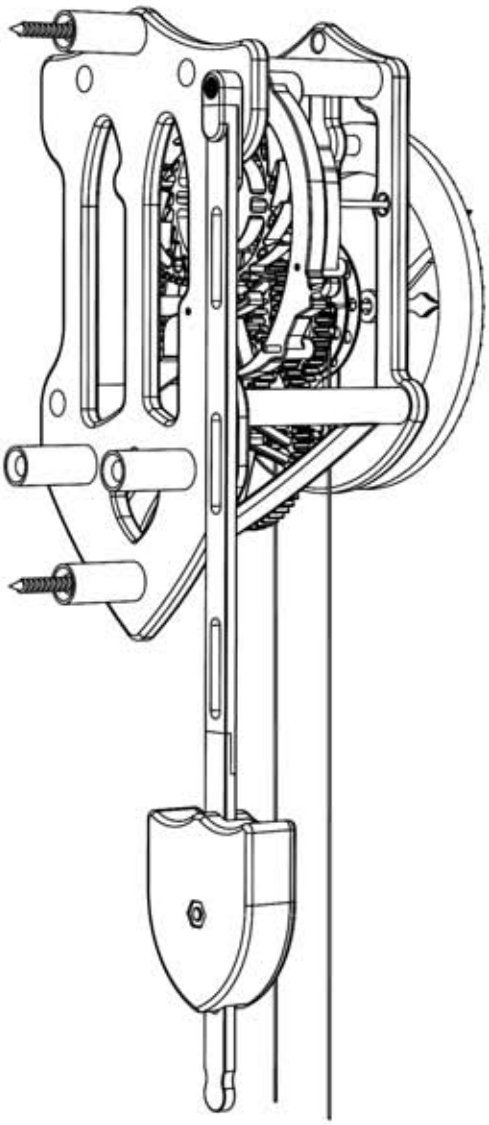
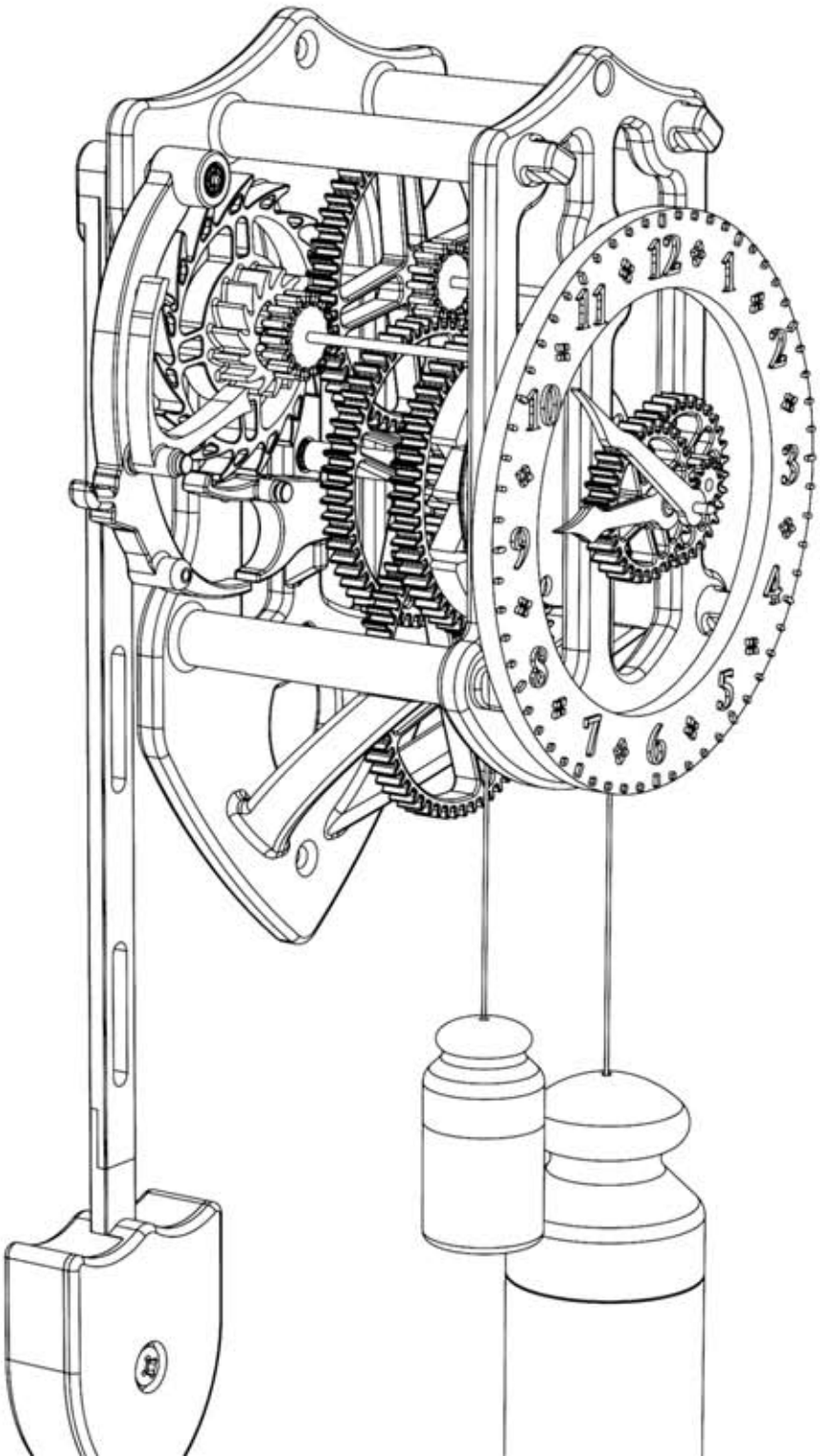
Assembly Sequence

Stage Fit the Fit the Pendulum assembly to the pivot on the rear face and fit the wall spacers , if not already done so. The clock can now be screwed to the wall and the Main and counter weights added.
The Main weight needs to be filled with 400 grams of weight, I used Ø9 mm Steel Balls to a total of 400 grams, you may be able to get it working on less.
The counter weight only needs sufficient weight to keep the cord tort.





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