

DIY Gear Clock

WHAT YOU WILL LEARN:

1. Following instructions to create a working clock by yourself!
2. How a pendulum and gravity drive a clock.
3. How gears move each other and connect together to move other objects.

Parts:

WARNING! Not Suitable For Children Under 36 Months Due to Small Parts. Choking hazard.

Step 1
Picture 1



Put body back plate down onto flat side. Affix hammer spring to small peg (Picture 1).

Step 2
Picture 2



Put hammer onto small peg (Picture 2). Ensure that hammer side is facing downwards to the right.

Step 3
Picture 3



Affix button to same small peg as hammer (Picture 3).

Step 4
Picture 4



Put bell onto small peg (Picture 4).

Step 5
Picture 5



Affix button to same small peg as bell (Picture 5).

Step 6
Picture 6



Move spring winder through the hole on bottom right to back of body (Picture 6).

Step 7
Picture 7



Put pawl onto spring winder. Ensure that pawl prongs are facing to the right (Picture 7).

Step 8
Picture 8



Put red gear onto large peg B. Make sure flat side of red gear sits horizontally to the body (Picture 8).

Step 9
Picture 9



Put yellow gear (small) onto large peg A. Ensure that flat side of yellow gear is facing against the body and that teeth line up with red gear (Picture 9).

Step 10
Picture 10



Put blue gear onto large peg C. Ensure that flat side of blue gear is facing against the body and that teeth line up with red gear (Picture 10).

Step 11
Picture 11



Put larger end of spindle gear into flat side of yellow gear (Picture 11).

Step 12
Picture 12



Put assembled spindle gear and yellow gear (large) into the middle hole of body (Picture 12).

Step 13
Picture 13



Put bell gear onto large peg F. Ensure that hammer is in between two of the legs of the bell gear (Picture 13).

Step 14
Picture 14



Put purple gear onto large peg D. Ensure that flat side of purple gear is facing against body and that teeth align with the teeth of spindle gear and bell gear (Picture 14).

Step 15
Picture 15



Put orange gear onto spindle gear. Make sure that flat side of orange gear is facing against spindle gear and that teeth line up with purple gear (Picture 15).

Step 16
Picture 16



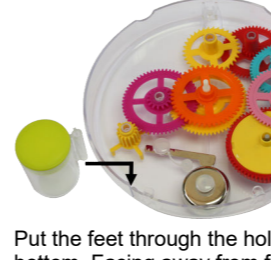
Put spring gear onto spring winder. Ensure that yellow side of spring gear is facing away from body and that teeth align with teeth in yellow gear (Picture 16).

Step 17
Picture 17



Put pink gear onto large peg E. Ensure that flat side of pink gear is facing away from body and teeth line up with teeth of blue gear and spring gear (Picture 17).

Step 18
Picture 18



Put the feet through the holes at the bottom. Facing away from front plate, slide the rail on feet into the hole slots on front plate until it is even with the front (Picture 18).

Step 19
Picture 19



Affix front plate onto body. Ensure that the two prongs at the bottom of the body snap into the front plate (Picture 19).

Step 20
Picture 20



Affix support pin into top hole (Picture 20).

Step 21
Picture 21



Affix spring case button into bottom right hole until onto the spring winder (Picture 21).

Step 22
Picture 22



Put hour hand onto orange gear in the middle of the front plate. Ensure that flat side of hour hand is facing away from front plate (Picture 22 and Picture 23).

Step 23
Picture 24



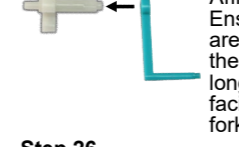
Put minute hand onto spindle gear. Ensure that flat side of minute hand is facing away from front plate (Picture 24).

Step 24
Picture 25



Affix fastener to spindle gear to hold hour and minute hand to the assembled body (Picture 25). Flip assembled body over.

Step 25
Picture 26



Affix hanger to fork. Ensure that fork prongs are facing down against the hanger and that long side of hanger is facing away from the fork (Picture 26).

Step 26
Picture 27



Put assembled hanger and fork into the hole beneath support pin (Picture 27).

Step 27
Picture 28



Affix fork supporter onto support pin and fork. Ensure three long prongs of fork supporter are facing against assembled body. Affix the longest part with hole to support pin (Picture 28) while fitting the bottom slot onto fork (Picture 29).

Step 28

Affix pendulum pole to pendulum. Ensure the side with teeth from pendulum pole line up with pendulum (Picture 30).

Step 29
Picture 31



Put assembled pendulum onto fork supporter. Make sure flat side of pendulum pole is facing away from assembled body and put top hole of pendulum into fork supporter while placing long side of hanger into pendulum slot (Picture 31).

Step 30

Affix fastener to fork supporter to hold pendulum in place (Picture 32).

Step 31
Picture 33



Affix button to long side of hanger (Picture 33).

YOU MADE IT!

Now your very own DIY Gear Clock is completed! Use the included hour-template to help you position the hour digit stickers (by temporarily remove the hour and minute hands first). Add other stickers on the clock face to customize your unique design.

You can now set the time and pendulum length. Make the pendulum shorter if the clock moves too slowly. Make the pendulum longer if the clock moves too fast. You can hear the bell ding every 15 minutes by winding the winder all the way and then swing the pendulum!

