

About the Artist:

David C. Roy

Mechanics and motion have always fascinated me. During college I studied physics, engineering and chemistry to further my understanding of how things worked. I graduated with a degree in physics from Boston University in 1974. This intuitive understanding of motion and mechanics combined with the artistic influences of my wife, Marji, led me to the creation of kinetic sculptures. In 1975 we started "Wood That Works" and I became a full time sculptor. Since then I have designed and handcrafted over 150 different limited edition and one-of-a-kind kinetic sculptures. I have exhibited in numerous juried, invitational and group events. My work is displayed in galleries and private collections around the world. I currently maintain a studio in rural northeastern Connecticut.

Wood 
that Works

Duality • Directions

Kinetic Sculpture by David C. Roy
©2017



To the Owner...

Hello,

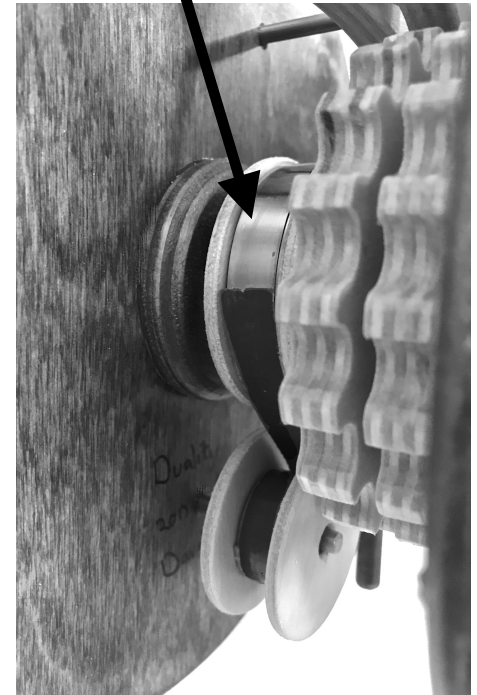
Welcome to the world of Wood That Works. This Duality is number _____ out of a possible 95 pieces. It was made by me during the month of _____ in 2019. I build, test and pack each sculpture myself, doing 6 pieces of an edition per month. Designing and building kinetic sculptures like Duality has been my full time occupation since 1975. I hope Duality brings you and other viewers as much enjoyment as I've found in making it.

Duality has been mounted on a wall in my shop and running for at least 2 complete windings (many hours) before I pack it. I make every effort in design, construction and packing to make sure the piece will perform problem free for years to come. I use only the finest materials. Of course, problems can still occur no matter how hard I try to prevent them. My answer to this is a warranty to the original owner against defects in materials and workmanship for three years. See the guarantee section of this booklet for details.

It leaves me happy and satisfied to find that my work has made its way into new lives. I hope it brings you years of enjoyment.

David C. Roy

Red Tape



Subsequent windings:

- Use the key to turn both wheels looking behind them and keeping close attention on the metal band winding from the small spool to the large one.
- After about 15 turns you will see the first set of colored warning tapes. SLOW DOWN the winding pace. After another 5 or so turns you will see red warning tapes. STOP WINDING. A full winding is about 23 turns in a clockwise direction.
- Once wound remove the key and hang it back on the hanger on the base.
- It is easy to wind the sculpture too quickly. The wheels are heavy and carry a lot of momentum. If you wind beyond the red warning tape you will reach the end of the spring and may cause possible damage.
- CAUTION: Over-winding the sculpture can break the spring. Make sure you turn the back wheel slowly enough so you can stop its motion before you reach the red tape at the end of the string.
- Never manually release any of the levers on the sculpture when it is wound. Doing so will release the spring and definitely cause damage.

To Start

- If the sculpture doesn't start moving on its own when you finish winding, gently push both wheels clockwise.

Directions:

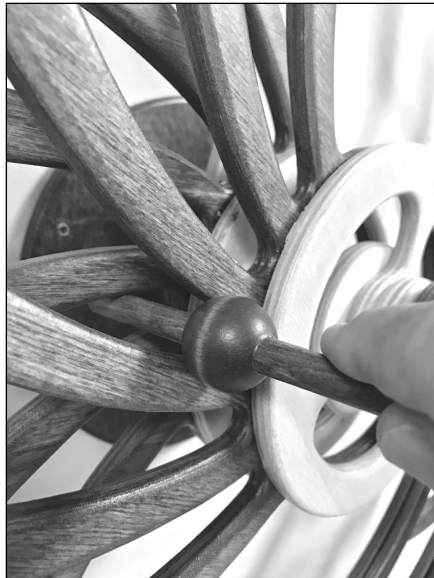
To Wind

Important First Time winding instructions:

- The first time you wind up this sculpture after unpacking requires special attention. Shipping may have caused parts to move unexpectedly.
- First look for obvious things that might have come out of alignment in shipping.
- Only wind the spring **TWO** turns for the first run.

Winding First Time:

- The technique for winding Duality requires that both of the large patterning wheels are turned clockwise to wind the spring.
- I have included a winding key attached to the base of the sculpture to use when winding. Do not use your finger. Pinch points exist. There is a video online demonstrating winding Duality here: <http://www.woodthatworks.com/kinetic-sculptures/duality>
- Place the short end of the key through **BOTH** the front and back fans. Both wheels will turn together in a clock-wise direction. Only wind **TWO** turns.
- Make sure the metal band is winding inside the larger spool walls. If it isn't, shift it so that it does. It should be fine for all future windings. A short run will show you if parts slid out of alignment during shipping.
- If it doesn't run as expected email David at woodthatworks@gmail.com



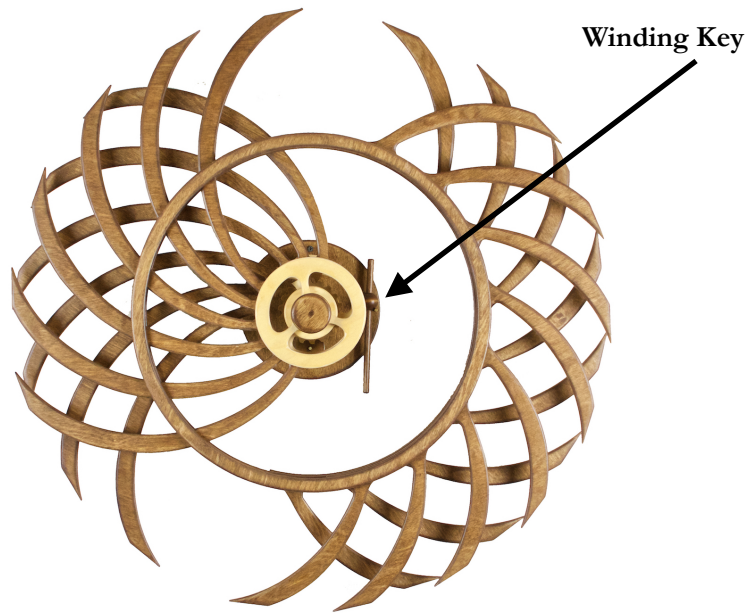
About Duality:

When designing a kinetic sculpture many different types of balance need to be considered. This was especially true with Duality.

First there is *visual balance*. Marji (my partner, wife, art teacher) taught me about visual balance many years ago when I was working on my first sculptures. Basically it is trying to achieve balance in the appearance of the sculpture. Symmetrical designs are visually balanced but can be boring while asymmetrical designs are harder to balance but usually more interesting.

Second, there is *simple balance*. Here each mechanical part of a kinetic sculpture must be either in balance or off balance by a precise amount as related to gravity. Absolute precision in this area is impossible to achieve when working in wood but it is essential in my design to have a clear understanding of the tolerances available in each design.

And lastly, I work with what I call *patterning balance*. I created this term to define the balance I need to achieve between the complexity of a motion and the designs of the individual components (wheels, levers, etc.) within a sculpture. More complex patterning wheels usually require a more restrained motion than less complex wheels to prevent the sculpture from becoming visual chaos. Duality has what I consider a more complex asymmetrical wheel design. In order to fully comprehend the patterns created, the mechanism has to move the wheels in a more predictable way. Alternatively a sculpture like Infinity has symmetrical wheels so I used a more random and unpredictable mechanism to move it. After designing the wheel for Duality I needed to experiment with the various motions I can create to establish the visually most exciting combination. Once I achieve that patterning balance, I have a sculpture!



Specifications:

Size: 33”h x 33”w x 7”d

Power Source: negator spring

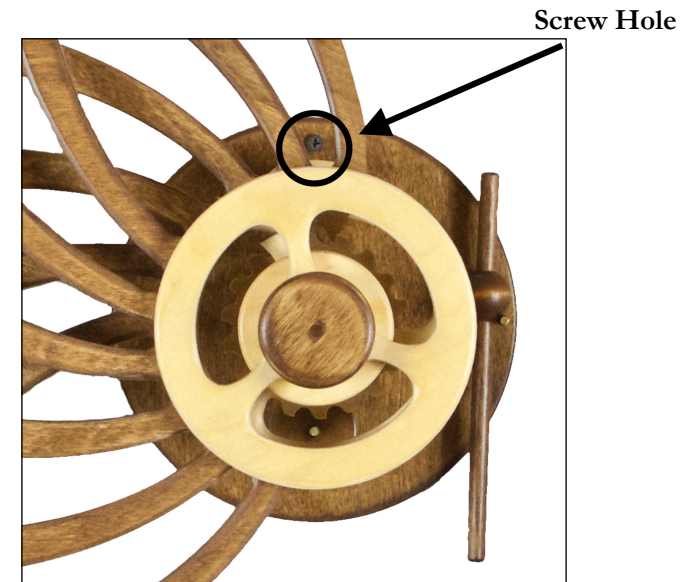
Approximate Run Time: 8 hours

Materials: hardwood plywood, bearings,

Duality ©2017

Guarantee:

- My kinetic sculptures are guaranteed to the original owner for a period of three years. All warranties expire with transfer of ownership from the original owner. Damage of the sculpture from exposure to extremes of high or low humidity, or to adverse hot or cold temperatures, or damage caused by normal wear and tear, accidents, misuse, or modification will not be covered by the warranty. Shipping and insurance to and from Wood That Works is the responsibility of the purchaser.
- I will charge a reasonable repair fee if the sculpture was damaged by misuse or needs refurbishment from normal wear and tear.



Directions:

To Mount on Wall:

- Duality does not need a template to set up.
- Locate the top center mounting hole. It is directly above the light colored wood bracket behind the wheels indicated by the arrow in the photo above. Place this screw hole at the top and center in location.
- Hold the sculpture in the desired location and screw the top center screw in place temporarily securing the sculpture to the wall. Shift the dark base so that the screw is top center and the left and right screw holes are level with each other. Screw those screws in place.
- Now take the sculpture down by removing the screws. Gently hammer the provided plastic anchors into the screw holes making sure the top collars are flush with the wall. Screw the sculpture back into position again starting with the top center screw.