

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 200 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

Sky Duet • Directions

Kinetic Sculpture by David C. Roy
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To the Owner...

Hello,

Welcome to the world of Wood That Works. This Sky Duet is number _____ out of a possible 8 pieces. It was made by me during the month of _____ in 2016. I build, test and pack each sculpture myself, doing 6-12 pieces of an edition per month. It takes several years for me to complete an edition and some are never finished as I move on to new designs. Designing and building kinetic sculptures like Sky Duet has been my full time occupation for more than 40 years. I hope Sky Duet brings you and other viewers as much enjoyment as I've found in making it.

Sky Duet 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 five years. See the guarantee section of this booklet for details.

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

David C. Roy

Sky Duet Specifications:

Limited Edition of 8

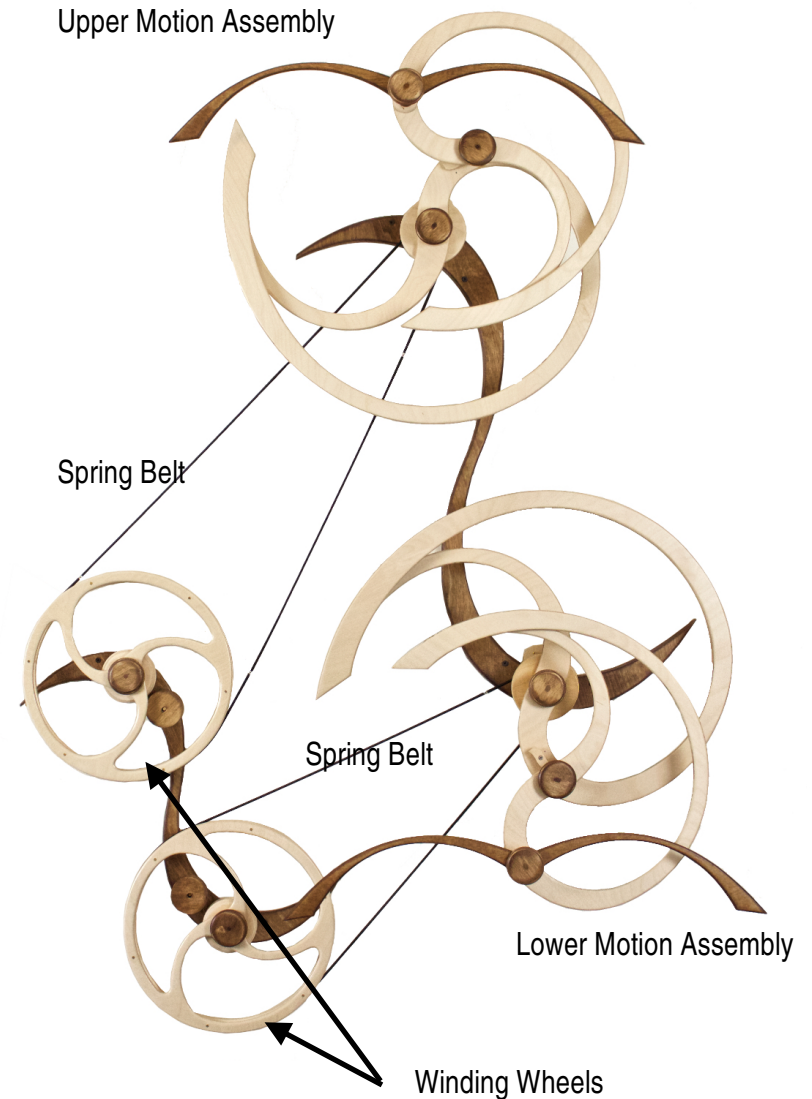
Size: 55"h x 65"w x 9"d

Power Source: negator spring

Approximate Run Time: 18 hours

Materials: hardwood plywood, brass, bearings

Sky Duet © 2016



Before Moving Sculpture:

- Make sure the sculpture is completely unwound.
- Remove the upper and lower motion assembly parts before taking the sculpture off the wall in a reverse procedure to the installation. Unscrew the knob on the center shaft and slide it off the shaft.
- Label each belt (upper and lower). They are different lengths and you will need to be able to identify them when you again put the sculpture up.
- Unhook the belts and remove them.
- Never lay the sculpture on a horizontal surface for a long period of time without supporting the patterning wheels. I use crumpled newspaper to support and separate the wheels when packing the sculpture.

Guarantee:

- My kinetic sculptures are guaranteed to the original owner for a period of five 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.

About Sky Duet:

Sky Duet, like all my sculptures is the product of optimism and determination. I'm always optimistic at the start, confident that this next idea will work both mechanically and visually, and then determined to figure out why it doesn't.

I started working on Sky Duet shortly after I finished Solo in 2014. I had assumed that two Solos would make a Duet. Wrong! I set up two Solos, one over the other as a first test and what a mess! The grace and simplicity of Solo became chaos. The carrying wheels visually fought each other when in close proximity and even then, close wasn't close enough so that the "bird" forms could interact. It was time to rethink this concept.

It was obvious that I needed to redesign the carrying wheels to take up less space. I started sketching and a sort of yin-yang wheel emerged. They worked well visually together but still provided the physical weight needed to balance and carry the bird forms. As I started working with some animations I realized something else. I loved how the forms flowed together.

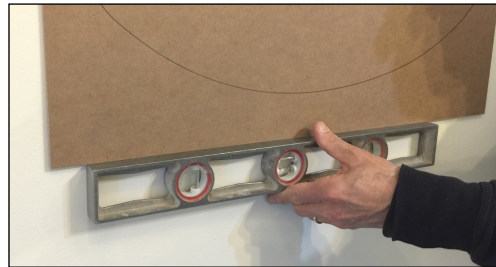
But there was still a problem. I made the first prototype and it worked as expected but it didn't excite me. I liked the flow of the carrying wheels but something about the overall feel was still wrong. I lived with the piece for more than a year, periodically sitting on my couch in the studio and studying. I finally realized what was bothering me. The straight line motion of the birds that I had carried forward from Solo wasn't right for a Duet. The birds seemed to fight each other rather than dance together. I redesigned the mechanism to produce spirals and swirls and rebuilt the prototype.

I sat back on my couch one more time. And smiled. They were dancing together, the transformation from solo to pair was complete.

Directions:

To Mount on Wall:

- The mounting template comes in 3 pieces, two along the bottom and one centered over them. The center of the two lower pieces is the approximate center of the sculpture. Hold the left hand lower piece in the desired location against a wall (Template #1). Minimum clearance distances are noted in the diagram on the next page.
- Attach the bottom left template to the wall with 1 screw.
- Level the bottom edge of the template. Insert a second screw to mark the location and hold the lower template in place.
- Position the right hand template next to the left hand template edge aligning bottoms.
- Insert a screw a couple of turns into each hole to mark their positions on the wall.
- Center the remaining template over the first 2 lining up marker lines. Insert screws. Mark holes.
- Remove screws, remove template and save the template.



Subsequent windings:

- Turn each winding wheel, (upper clockwise lower, lower counter-clockwise) 22 turns if completely unwound. Less if not.
- You should hear a clicking sound as you wind the sculpture. When you finish winding make sure the ratchet is engaged before releasing the winding wheel.
- Pay close attention to the top of the light colored wood spool directly behind the winding wheel. Stop winding as soon as you see the red tape appear on the metal band. This is placed about 2 turns from the end. Winding beyond this point may damage the sculpture.



To Start

- Give the back wheel of each motion center a gentle push to start it moving. You should hear a click when the mechanism engages. Do not set the "bird" pieces swinging. If you do, gently steady them so they stay in a horizontal position.
- The two sculpture motion assemblies may not run the same amount of time.

To Stop:

- Slow the motion of the patterning wheels with your hand and let them come to rest.

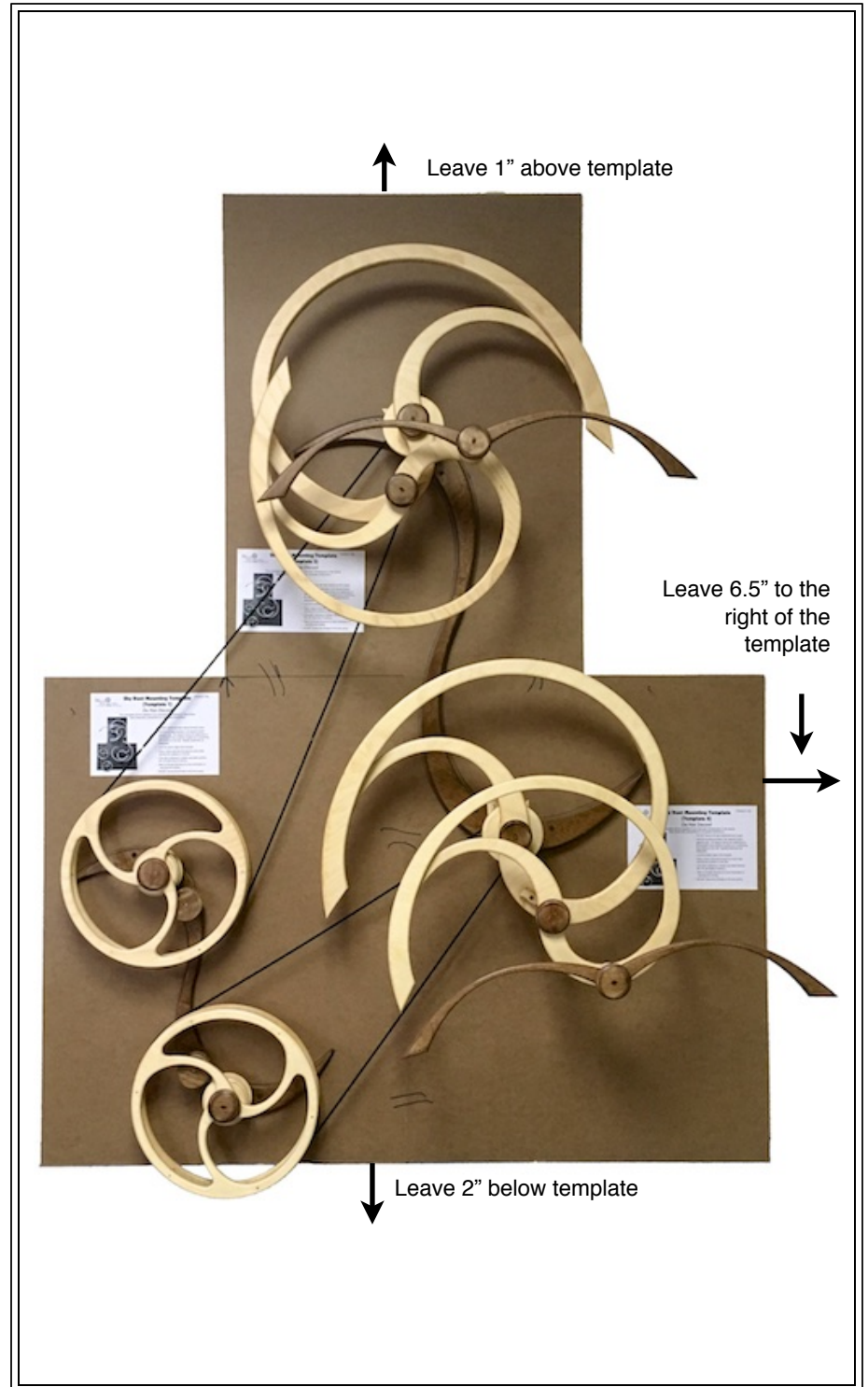
Directions:

- Screw the cover knob in place. Do not over tighten. Just finger tighten. The motion center must be allowed to slide $1/16''$ of front to back motion along the axel. Over tightening will pinch the bearings together causing it to not operate.
- Attache both the upper and lower motion assemblies in the same way.
- Note: There is no cover for either of the spring spools.



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 like belts out of pulleys.
- Only wind each spring TWO turns for the first run. The upper is wound clockwise, the lower counter-clockwise. 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 david@woodthatworks.com.

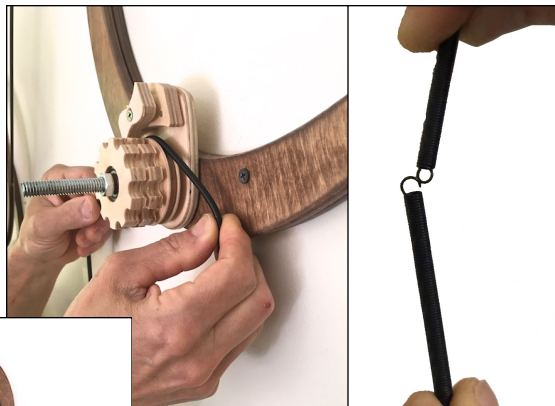


Installation Directions (con't):

- Drill pilot holes in the wall using a 1/8" bit. If the wall is sheet rock or plaster use plastic anchors.
- Screw the left base and mechanism to the wall first using both screws.
- Screw the right base into place (4 screws)



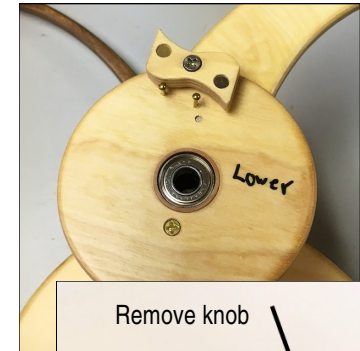
- Thread the lower spring belt through the center of the lower part of the sculpture. It should be positioned to rest inside the pulley slot.



- Bring this spring belt down and around the lower winding wheel and hook the two ends of the spring belt together.
- Repeat for the upper spring belt.

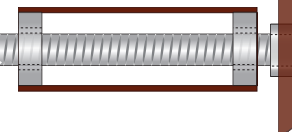
Installation Directions (con't):

- Install the motion centers.
- There are 2 similar but different motion centers. They are labeled upper and lower on the back.
- Remove the knobs from the right hand base and slide each motion center onto the appropriate shaft.

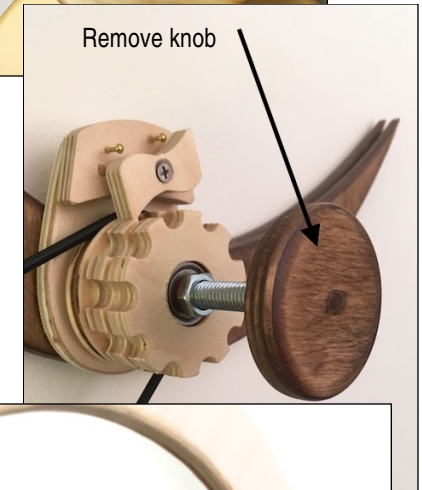


Simplified hub bearing diagram

Base and Wall



Remove knob



- When you slide each wheel on, know that the hub contains 2 bearings, one in the front and one in the back. It will slide easily when aligned. Don't force it.
- Slowly rotate the wheel counter-clockwise after it is on the shaft. This will properly seat the lever on the back side.

