

## About the Artist:

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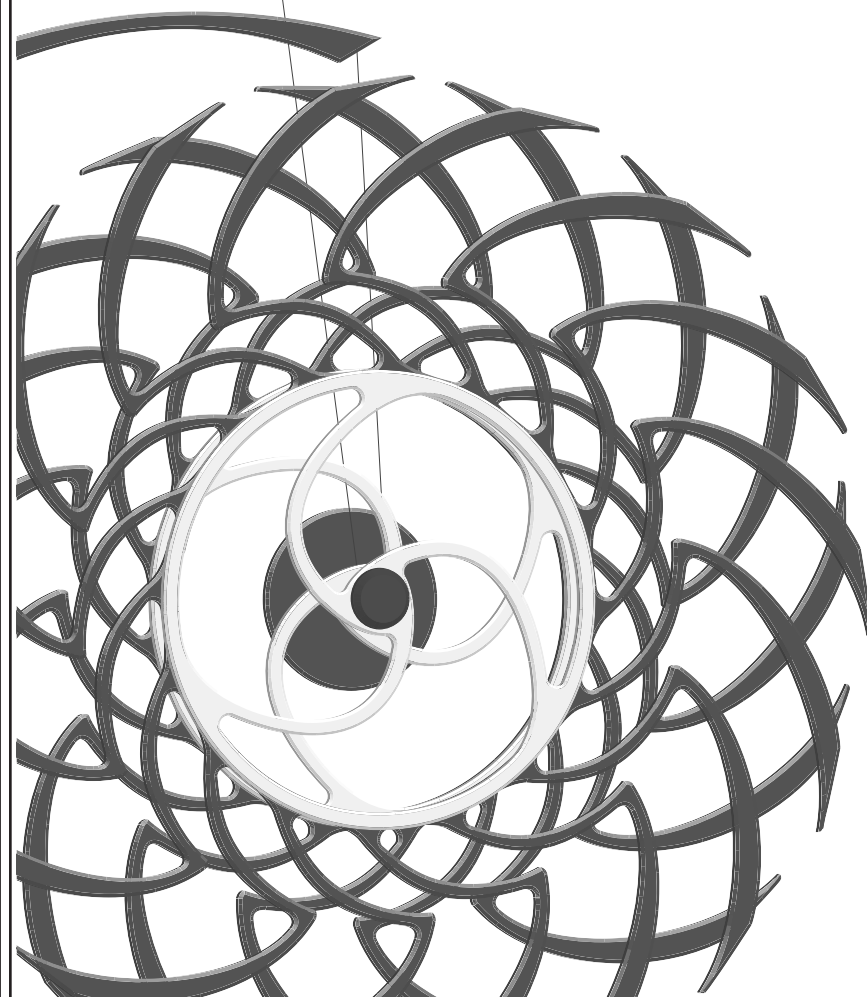
### David C. Roy

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 hand-crafted over 100 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

## Illusion • Directions

Kinetic Sculpture by David C. Roy  
© 2005



## To the Owner...

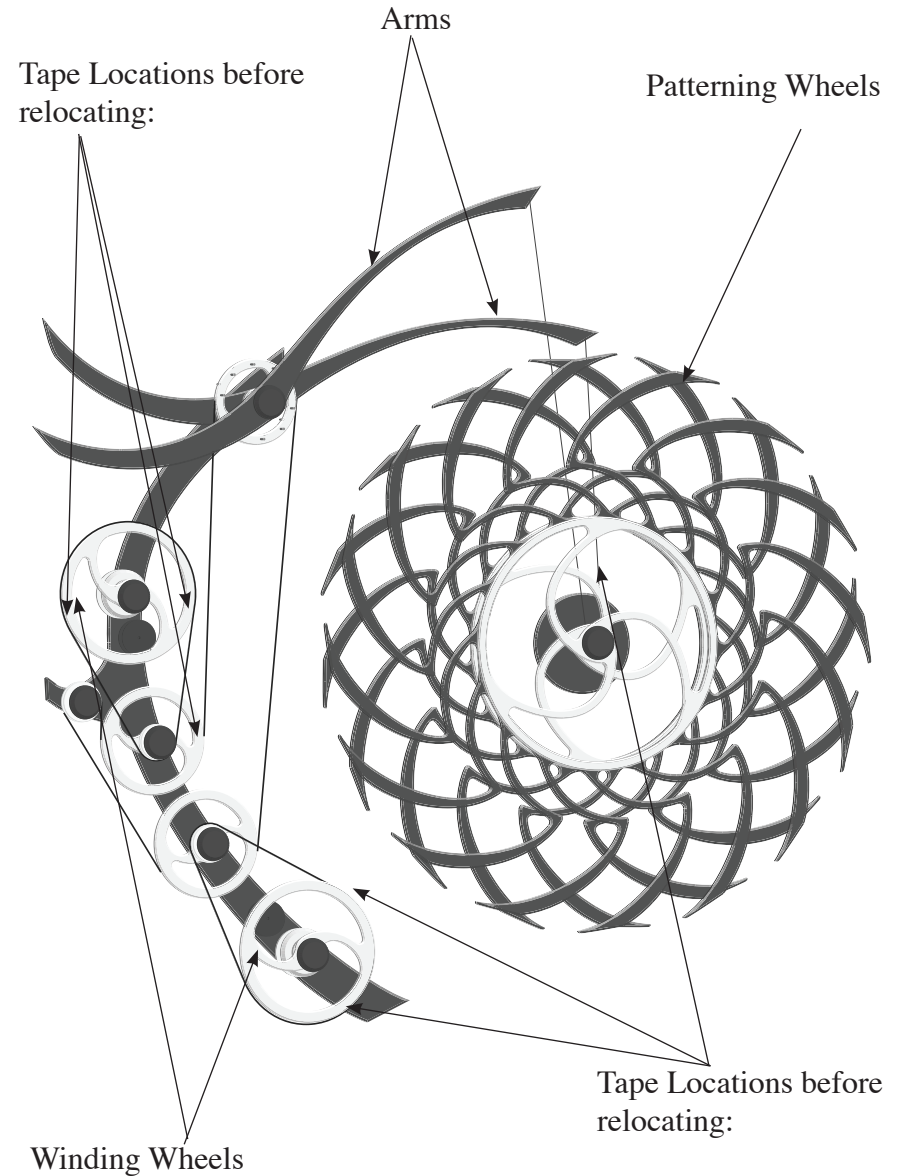
Hello,

Welcome to the world of Wood That Works. This Illusion is number \_\_\_\_\_ out of a possible 36 pieces. It was made by me during the month of \_\_\_\_\_ in 2008. 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 Illusion has been my full time occupation for more than 25 years. I hope Illusion brings you and other viewers as much enjoyment as I've found in making it.

*Illusion has been mounted on a wall in my shop and running for at least 24 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.*

*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



## Directions:

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### **To Start:**

- If the sculpture does not start by itself after winding, gently push both patterning wheels clockwise.

### **Before Moving Sculpture:**

- Always tape the spring-belts and strings in place before moving the sculpture. This will save a lot of aggravation when it is time to set the piece up again.
- See the diagram for the best tape locations.

### **Correct Installation of the Spring-Belts:**

- Three spring-belts power and control the motion of this sculpture. It is easy to reinstall the small belts if they become knocked loose during shipping or installation. The longer belt takes a more involved path and can be a challenge to reinstall without the proper directions.
- Spring-belts tend to have minds of their own and it sometimes helps to have an extra pair of hands to install the long one.
- The long belt passes behind the smaller ones. The first step is to remove the small ones so they are out of the way. Refer to the diagram at the right and remove the small belts by popping them out of the pulley slot. Make sure you hold the drive wheel and release any stored spring tension slowly.
- Install the long belt following the pattern shown in the diagram to the right. This can be frustrating and another set of hands is very helpful.
- Reinstall the short drive belts.

### **Correct Installation of the strings:**

- It is critical that when the back string is completely unwrapped and pulling straight up from the spool that the front string is wrapped around the spool 3 times. Check to see that this is the case by gently rotating the rear patterning wheel until the rear string is completely unwound.

## About Illusion:

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Size matters. At least when making complex patterning wheels! The large, patterning wheels in Illusion allow me to create a very complex 3-dimensional patterning sequence. The mass of these large wheels creates a slow and graceful movement which is essential in elaborate patterns.

The sequence starts with a relatively mild wave-like motion as the wheels rotate in the same direction but at slightly different speeds. A strong optical illusion begins to “pop out” as the back wheel slowly reverses direction and the wheels begin to counter rotate. Many folks see a shape like a torus or doughnut that seems to project out in front of the sculpture.

## Specifications:

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Limited Edition of 36  
Size: 51”h x 53”w x 8”d  
Power Source: negator spring  
Approximate Run Time: 20 hours  
Materials: hardwood plywood,  
bearings, string  
Illusion ©2005

# Directions:

## To Mount on Wall:

- DO NOT remove the tapes holding the spring-belts or right side strings in place until after the sculpture is mounted on the wall.
- Hold the template 1 against the wall in the desired location. The left-right visual center of the sculpture is marked on the template, 26.25 inches from the left edge.
- Level the bottom edge.
- Temporarily attach the template to the wall using the marked screw holes in the template. Partially screw in the screws.
- Hold the template 2 against the bottom edge of template 1. Align the right edges. Temporarily attach the template to the wall using the marked screw hole in the template. Partially screw in the screw.
- Hold template 3 against the right edges of templates 1 and 2. (Note the change in orientation of template 3.) Align the bottom of template 3 with the bottom of template 2. Mark the 3 screw holes using a sharp instrument.
- Remove template 2 and then template 1.
- Install wall anchors in the 6 marked holes if necessary.
- Screw the left hand side of the sculpture to the wall using the marked holes. Be careful not to dislodge the black belts from the pulleys.
- Screw the right hand side of the sculpture to the wall using the marked holes.
- Attach the inner string hanging from the right-hand side of the sculpture to the arm closest to the wall. Place the string over the screw eye closest to the end of the arm and then loop the end of the string over the other screw eye.
- Attach the outer string to the outer arm in the same manner.
- Remove the tape holding the strings to the patterning wheels.
- NOTE: It is critical that when the back string is completely unwrapped and pulling straight up from the spool that the front string is wrapped around the spool 3 times. Check to see that this is the case by gently rotating the rear patterning wheel until the rear string is completely unwound.
- Remove the tape holding the spring-belts in place.

## To Wind:

- After the initial installation do a test winding. Turn the upper winding wheel counter-clockwise 1 turn. Turn the lower winding wheel clockwise 1 turn. Start the sculpture by gently pushing both patterning wheels clockwise. Let the sculpture run for a few minutes as the arms alternate going up and down.
- For a full winding turn the upper winding wheel counter-clockwise 24 turns. Turn the lower winding wheel clockwise 24 turns.
- 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 1 turn from the end. *Winding beyond this point may damage the sculpture.*

Continued...

