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 130 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.

## Uandary • Directions

Kinetic Sculpture by David C. Roy
© 2009

David C. Roy

## To the Owner..

## Hello,

Welcome to the world of Wood That Works. This Quandary is number $\qquad$ out of a possible 95 pieces. It was made by me during the month of $\qquad$ in 2011. 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 Quandary has been my full time occupation for more than 30 years. I hope Quandary brings you and other viewers as much enjoyment as I've found in making it.

Guandary has been mounted on a wall in my shop and running for at least 2 complete windings (several 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



## Directions:

## To Wind

- Turn the winding wheel in a counter-clockwise direction 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.


## To Start

- If the sculpture does not start immediately after winding push the light colored back carrying wheel one rotation clockwise to start 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 Quandary:

It seems that my current common design theme is try, try again. I started work on this sculpture well over a year ago. I wanted to build a Variation-type sculpture but with four satellite wheels instead of six. Working with four wheels allowed me to have more overlap between the wheels and create completely new patterns. This worked well in my test animations and early prototype.

My first quandary was that I could create two different and interesting patterns using the same satellite wheels placed in different positions. I couldn't decide which pattern I preferred. Eventually I realized that I was the only one with this problem. Everyone else had a definite preference.

My second quandary was the mechanism. The first one I designed was too complex to operate and moved the sculpture in too regular a motion. I tried several approaches but nothing was right. Finally, I decided to try what I call a "fall back" type of mechanism where the motion proceeds in one direction until it runs out of momentum and then "falls" back and gets another push forward. Much to my surprise this was the answer. The extra rocking motion this mechanism introduced to the satellite wheels gave the sculpture the "life" that I had been looking for. It was also far simpler to make and operate and even ran longer than my original mechanism.

## Specifications:

Limited Edition of 95
Size: $48^{\prime \prime} \mathrm{h}$ x $38^{\prime \prime}$ w x 8 " d
Power Source: negator spring
Approximate Run Time: 10 hours
Materials: hardwood plywood, bearings, string
Quandary ©2009
Patent No. 4637152

## Directions:

## To Mount on Wall:

- DO NOT remove the tape holding the belts in place
- Hold the backboard in the desired location against the wall. Level the bottom edge. Use a level.
- Place a sharp instrument through the screw holes, marking their positions on the wall.
- Drill pilot holes. If the wall is sheetrock or plaster use plastic anchors.
- The top assembly must be installed in the correct orientation. There is an arrow on the back of the disk showing the UP side. When viewed from the front the single short brass pin mounted directly in the dark circular base should be at between 11 and 12 o' clock.
- Screw the sculpture to the wall
- Install the connecting belt by looping it over the small pulley next to the base on the upper mechanism and the right hand pulley on the lower mechanism. Hook the ends of the belt together.
- Remove the tape holding the drive belt in place.


## Before Moving Sculpture:

- Always tape the spring-belts 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.


Tape locations when relocating

