

## 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 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

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Shasta • Directions

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

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Hello,

Welcome to the world of Wood That Works. This Shasta is number \_\_\_\_\_ out of a possible 49 pieces. It was made by me during the month of \_\_\_\_\_ in 2023. I build, test and pack each sculpture myself, doing 6 pieces of an edition per month. Designing and building kinetic sculptures like Shasta has been my full time occupation since 1975. I hope Shasta brings you and other viewers as much enjoyment as I've found in making it.

Shasta 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:

- 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 spring.
- 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 **counter-clockwise**.
- The sculpture will make 1 soft click per revolution and a somewhat louder click periodically when the mechanism pushes the wheels.

## Directions:

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### 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:

- Shasta requires that both of the patterning wheels are turned clockwise to wind the spring.
- Place your index finger through the front hub of the indicated notch (diagram right) into the back hub. Start turning the back wheel. Slowly wind just two turns clockwise. You will hear a clicking sound. 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](mailto:david@woodthatworks.com).



#### Subsequent windings:

- A full winding is about 40 turns.
- Repeat the winding directions above for a full winding. Once both wheels are turning you can back your finger out and just use the front wheel to continue winding.
- After about 30 turns you will see the first set of colored warning tapes. SLOW DOWN the winding pace. After another 8 or so turns you will see red warning tapes. STOP WINDING.

## About Shasta:

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With the luxury of retirement, I've discovered more time to indulge my passion for problem solving and design, or what I like to call "play." Up until now my center wind sculptures have adhered to a common mechanism, generating consistent torque for their motion. This mechanism was effective for sculptures like Vice Versa and Duality, where opposing wheel movements were essential and the extra torque vital. However, its performance fell short for sculptures like Shasta and all Kindala types, where the slow gradual variation in rotational speed crafts the intricate patterns. This is why previous versions of Kindala like Celebration and Forest have used external winding mechanisms.

This challenge had occupied my thoughts for a while until I finally found a solution—a compact reduction pulley system discreetly positioned behind the patterning wheels. This innovation slashed torque by nearly half, making it the ideal drive for Kindala-style sculptures. Winding became effortless and I could engineer it to deliver the precise amount of torque needed. The only missing piece was a fresh pair of patterning wheels attuned to this mechanism.

My creative process consisted of crafting countless animated sketches, each exploring diverse patterns. Among them, one stood out: Shasta (though its name materialized later). What sets Shasta apart is the incorporation of dual layers of curved paired spokes for each wheel. This unique approach not only results in a captivating "bloom," but also gives birth to an unprecedented radial optical effect as the pattern dynamically unfolds.

I have dropped the Kindle prefix from its name but Shasta is of the Kindala series. My hope is that Shasta brings you as much joy as it has brought me in designing and building it.





## Specifications:

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Size: 31”h x 31”w x 7”d

Limited Edition of 49

Power Source: negator spring

Approximate Run Time: 10 hours

Materials: hardwood plywood, bearings,

Shasta ©2023

### 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.



### To Mount on Wall:

- Shasta does not need a template to set up.
- Locate the top center mounting hole indicated by the arrow in the photo above. It is directly above the light colored wood bracket behind the wheels. 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. David uses a power drill with a long 6” Phillips head screw driver bit to reach the center screw. 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 plus the bottom one in place. In some situations only the top and bottom screws are necessary.
- 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.