Lowell Kinetic Sculpture Race Official Rules

(updated July 2025)

The One Rule to Rule Them All

You must have fun!! All kinetic pilots, pit crews, minions, barnacles, Kinetic Royalty, Mad Marshals, course volunteers, spectators, and happenstance by-standers should try their best to have FUN at all times. The mission is to show kids it is fun to be an adult. Those with frowny faces, grumpy grimaces, and other unbecoming sets of emotions shall be cited. Consistent crankiness by any team will garner a time penalty.

1. Pasta is Your Friend Rule (ACE Rule)

All kinetic sculptures are human powered (get those carbs for necessary energy). Batteries, engines or other stored energy, are not permitted to propel the vehicle. A sculpture team may use its pilots, wind or gravity to propel. Stored energy may be used to power non-propulsive items, like bubble machines, disco balls, or sound systems. Pilots and pit crews are permitted to push their sculpture in the legal push zone on the beach of Heritage State Park (all wheels need to be out of the water first) or after exiting the mudpit.

2. Check the Size Rule (ACE Rule)

All sculptures must conform to Massachusetts vehicle size restrictions of a maximum width of 102 inches, a maximum height of 13 feet 6 inches and a maximum length of 43 feet.

3. KaBOOM! (ACE Rule)

While flames coming out of the mouth of a dragon sculpture would be wickedly awesome, combustible gasses are not permitted. Flatulence will be overlooked.

4. Love, love, love Rule (ACE Rule)

All sculptures must carry with them a lovable stuffed animal for those moments when your team is in despair and need something to console them. Like a barnacle (see Rule #6 and special rule A), it must have a comfortable location to ride. (Time penalty)

5. Inspector Gadget Rule (ACE Rule)

Commandeering a kinetic sculpture is an inherently dangerous endeavor so it is important all safety rules are followed. All sculptures must pass the Head Mad Marshall's official safety inspection.

To pass the inspection you must have:

- -IDs, for all pilots and barnacles
- -official LKSR Rules
- -course map
- -functioning brakes
- -warning triangle (12" x 12") attached to the back of the KS

- -affixed tow ring, attached to the front, in the middle and strong enough to haul the entire KS from whatever situation it may be in (water, mud, sand, the grips of a giant troll, etc)
- -Coast Guard approved life jackets for every pilot and barnacle
- -1 container of water per pilot and barnacle (1 quart)
- -One horn (with squeezable bulb-please no air horns, we don't want to scare the birds) See Rule #13
- -a paddle or an oar
- -a cell phone to receive urgent race related calls (the number will be requested as part of your registration)
- -all pilots and barnacles under the age of eighteen shall have a helmet (bicycle helmet, hard hat, batter's helmet, or skateboard helmet)

6. Friends, Friends, Friends Rule (ACE Rule)

Each Sculpture must have 1 or more Pilots. Each Pilot and barnacle must have 1 human Pit Crew member. Each Sculpture may have up to 1 human Barnacle. Barnacles must be 12 years old or older. Having a Barnacle on your KS will garner you a bonus!! Barnacles, with special permission from the Head Mad Marshal, may be non-human like a dog, cat, lizard, or space alien.

7. Breaking the Law, Breaking the Law Rule (ACE Rule)

All law enforcement and Mad Marshall orders must be followed. If you are directed by an officer or a Mad Marshall to do something, do it with a smile. (penalty: banishment)

8. Fun for all Rule (ACE Rule)

This is a family event, with spectators of all ages who look up to Kinetic Pilots and teams with great esteem. Do not consume, ingest, or inhale any mind-altering substances, legal or illegal, before or during the race. The Race is a fantastic journey down the rabbit hole as it is, there should be no need to add to that craziness. (penalty: banishment)

9. Pile it on Rule (ACE Rule)

If you need something to complete the course, you need to carry it on your KS (floatation devices, alternate wheels, basic tools, etc.). Your team can bring along the mig welder in another vehicle, but other basics to fix, for instance a screwdriver to adjust your derailers, should be on your KS. Need to pump up your floatation devices? It should be on your sculpture.

10. It's Nice to be Nice Rule

Your sculpture must not be dangerous or harmful to yourself or anything else in the world. Projectiles such as arrows, anchors, grappling hooks etc. are not permitted. Bubbles though, are permitted and encouraged. In fact, if your sculpture is surrounded by bubbles throughout the race you will receive a time bonus!! Also, a team helping another team makes you a winner and will be noticed by officials (See Awards).

11. Mom's High Anxiety Rule (ACE Rule)

Make sure you can get out of your KS in an emergency. Each Pilot must have a quick exit path. In addition, life jackets must be worn by all on board the sculpture while on the water! You will not be allowed to begin a water crossing unless you are wearing one.

12. Feet Don't Fail Me Now Rule (ACE Rule)

Pilots, you may not have your feet on the ground to propel your sculpture, unless you are in a Legal Push Zone. Do not try to stretch the rules by strapping snowshoes on your feet. You may move laterally or backwards to better position yourself, be it to work on your sculpture on the course, in the Maddening Mudpit, or any other time. Pit crew may help in moving laterally or backwards or in a Legal Push Zone.

13. The James Brown Showmanship Rule (ACE Rule)

Loud and proud!! Your team name should be proudly displayed for all adoring fans, spectators, TV crews, glossy magazine editors and LKSR Royalty. You also must have the LKSR license plate (you will receive these at check-in) displayed on the front or back of your sculpture.

14. Ya Can't Get Tha-ya from Hee-ya Rule (ACE Rule)

Pilots are not permitted to leave the course. You will be given a map at check-in, so there is no reason to be careening off into some far-off land, unless it's wonderland and you are chasing a rabbit; that is ok. Otherwise, a Time Penalty will be allotted to your team for such an infraction. If for some reason there is a need to be off course, notify a Mad Marshal as to the circumstances and accommodations will be made; a little bribing can go a long way in this case. (penalty: time or loss of ACE status)

15. S.S. Minnow Rule (ACE Rule)

The drift limit in the river will be established by the Lowell Fire Department boat crew monitoring the safety of your water bound vessels. If your KS goes beyond the limit, you will be towed back to the course or brought back to shore. If you require assistance, you will lose ACE status.

16. Hug Your Official Rule

Harassment of Officials is not allowed. Officials are doing the best they can. If things are not going your way, take it personally—the celestials are picking on you. Take a moment to hug your stuffed animal to calm down. Pilots, Pit Crews, and Officials will not involve themselves in incidents of kicking, biting, scratching, or fisticuffs. Anyone engaging in such outrageous activities is not honored, but disgraced. (Banishment)

17. Beep Beep, Beep Beep, Yea Rule

Sculptures honked upon must yield the right-of-way and pull aside at the first opportunity to allow faster moving sculptures to pass. Passing pilots should gesture or display an obligatory sign of gratitude with a wave and a smile.

18. Who's Running This Ship Rule (ACE Rule)

There must be at least one pilot or pit crew member over the age of eighteen with the sculpture at all times. The steering Pilot must have a valid driver's license. Please speak with the Head Mad Marshall to make special accommodations.

Due to colliding galaxies in the kinetic universe, this rule is not a rule. Continue on, kinetinaut.

20. Real Thing/Right Stuff Rule (ACE Rule)

For the pilots on a sculpture to receive ACE status, no relief pilots will be allowed under any circumstances during timed competition. A Pilot or a pit crew member must stay within 20 feet of their sculpture at all times between the start of the race and the end of the race. (penalty: loss of ACE status)

21. The Agony of De Feet Rule (ACE Rule)

An ACE Sculpture must negotiate the course without assistance from any motorized vehicle. Receiving a tow suggests engineering improvements are required. Back to the old drawing board, and better luck next year! If your sculpture is able to be pushed, then by all means bring glory to your team by pushing it back to the finish line. You will receive high amounts of praise and glory for toughing it out, though you will lose ACE status.

22. 18% Total Body Wetness Rule (ACE Rule)

Pilots are only allowed 18% total area of body/clothes wetness. The point here is to stay out of the water. Therefore, every effort should be made to keep bodies above the river water line. You never know what could be lurking in them that waters.

23. Wait Five Minutes, It'll Change Rule

In the event of sun, the race will run anyway. In the event of rain, the race will run anyway.

24. The Tortoise and the Hare (ACE Rule)

Your KS must move faster than a person walking or the bubbles that might be blasting out of your cannon. To insure the proper encouragement from the mass of adoring fans you have, it is necessary for you to be at the respective obstacle at launch time. If you are holding up the progression of the race, a Mad Marshall will determine if you are to be picked up by the Wrecking Crew and brought to the next obstacle.

24a. At the mud and water, sculptures must be ready to proceed once the event has started. If you are not ready to go, you will lose your spot in line and will need to proceed to the back of the lineup. Once all the 'ready-to-go' sculptures have entered the event, any remaining sculptures have 5 minutes and 34 seconds to enter. If you do not enter in that time, it may be time to break out your stuffed animal for a long hug and get the wrecking crew to come pick you up.

25. Mandatory Fun Rule

All Pilots, Pit Crew members, Minions, Barnacles, Officials, Spectators, Police, Marine Posse, Timers, Royalty and any Passersby must put great effort into HAVING FUN! for it is such craziness as this, that keeps us all sane. (See The One Rule to Rule Them All)

26. Around the Bend and Back Again (ACE Rule)

Sculptures when entering the Merrimack River will navigate out to the Pontoon Boat with the LKSR Banner, honk their horn 3 times and salute the guests on board before making their way back to the shore and the beach. The Passengers on the pontoon boat will have the ability to move closer or farther away from you.

27. Le Start est Lemans Magnifique (ACE Rule)

The start of the race will commence immediately after the opening ceremonies. Pilots will line up across the street from their sculpture and when the esteemed guest announces 'Go', they will run across the street, climb into their sculptures and depart. While the start can be chaotic, once you pull out of your parking spot, do not pass other teams, until you have passed the Start line. Please remember Rule 17 The Beep Beep Yea Rule of courteous passing.

28. Sign on the Dotted Line

All race participants must sign a waiver before the start of the race. Pilots, pit crew, minions, barnacles, et al. If the participant is under the age of 18, we must have a guardian signed waiver.

Other Random Rules

A. Barnacle Bonus

For optional collection of additional valuable advantages within the judges eyes, non-powering humans (*Ages 12-100; with a minimum weight per barnacle of 73 pounds) can be carried aboard on a specially designed "seat" and may essentially be a "passenger" throughout the entire course. Barnacles may not be substituted and must sign the entry and waiver form. Barnacles may not in any way assist in the movement or propulsion of the sculpture and must stay seated while "clocked in" on the course. The Barnacle may direct and encourage the pilots by yelling and being a 'backseat' nudge. Special consideration for pets will be given if the Head Marshal is notified before race day.

B. The Inevitable Eventuality Rule

In the event the Official race course must be altered while the Race is in progress, diverted sculptures will receive an appropriate time adjustment (positive or negative) by a Race Official. If the detour is essentially the same as the closed route, then let's forget the whole thing! In the event of a course change, course closures, or difficult timing problems, etc., Pilots must obey all alternative rules, timing, and course changes set into motion by Race Officials.

C. Bribes

Officials may look the other way if a fine delectable edible treat or piece of fine hand-crafted art is discreetly or not discreetly given to them. We also look kindly at teams that distribute bribes to their adoring fans. You will bring great amounts of glory to your team for giving stuff away; even better if it has the official LKSR logo (Wingnut) and the current year on it!

What teams need for race day-

- -ID s for all pilots, Official LKSR rules, course map
- -functioning brakes
- warning triangle on the back
- tow ring or other spot on the front to tow you
- coast guard approved life jackets for all pilots and barnacles
- -waterproof first-aid kit (pit crew may carry this)
- -a water bottle for each pilot and barnacle
- -One horn (no bottled air horns allowed)
- -at least one paddle or oar
- -a cell phone (Provide your cell number at registration in the morning)
- -any pilot under 18 must have a helmet (bicycle helmet, hard hat, batter's helmet or skateboard helmet all work for this purpose)
- -1 stuffed animal
- -We strongly suggest you have bribes for the Kinetic Royalty and bribes for the Marshals (you might want to make special ones specifically for them), and bribes for your adoring fans.
- -any basic tools you will need (including air pumps, ratchet straps, etc) to fix your sculpture.
- -the name of your sculpture is prominently shown, the LKSR symbol (Wingnut) is next to your team name, and the official 'LKSR License Plate' located on the back or front of your sculpture.
- -One flashing red light on the back of your sculpture. (this is not necessary, but we strongly encourage you to have one)