SUMO Robot Competition

Description of the contest
The competition involves two Sumo 'bots competing in a circular arena. The objective of the competition is to move your opponent out of the circular arena by pushing, overturning, or other means within the allotted bout time of 90 seconds. The winner of each competition will be the Sumo 'bot left standing or functioning in the circular arena after pushing the opponent out of the arena or the last Sumo 'bot to leave the circular arena.

Should both competitors be entangled resulting in a deadheat or should neither Sumo 'bot leave the arena after the 90 second bout time limit, then a draw will be declared. Contestants may elect, in the event of entanglement, to declare a draw prior to the 90 second time limit as long as both contestants are in agreement. Contestants may elect this option to preserve their Sumo 'bots strength and wear on critical parts.

A bracket of competition will be drawn based upon the number of contestants such that each Sumo 'bot will compete in multiple bouts with other contestants entered in the competition (the number of bouts depends on the number of entrants and is according to officials determination). A contestant will receive 2 points for defeating an opponent, a win, and the defeated contestant will receive 0 points for a loss. Draws will award each competitor 1 point. The winner of the competition will be the contestant with the most points earned following a completion of the competition bracket. In the event that two or more contestants have equal scores after all brackets have been contested, then the two that are tied will go head-to-head with each other and the winner of this round will be declared the overall champion. If more than two are tied, there will be a round robin competition of those that are tied. If that match is declared a draw, then the most appealing design, as determined by popular vote of the observers present, will be declared the winner of the 2008 WuShock Sumo Competition.

The Arena
The arena consists of a flat circular plywood disk finished to be reasonably smooth and painted with semi gloss white paint. A black border of flat black paint assists the Sumo 'bots in determining their proximity to the edge of the arena. The arena surface will be raised approximately 1 inch from the supporting surface (either floor or tables) in order to determine when a Sumo 'bot has left the arena and is unable to return to the competition. The overall arena diameter will be 48 inches (121.92 cm) including the 3 inch (7.62 cm) wide painted black border marking the edge.

Timing
Each bout will last up to a maximum of 90 seconds, if no clear winner is established before that time. When a bout is started, each Sumo 'bot must wait for a minimum of 2 seconds before moving. Initial movement must be away from the opponent.

Holding Area (On Deck)
A holding area will be designated near the competition area. Each contestant must be in the area a minimum of one minute before the designated time with their bot. If a contestant is not in the holding area with a ready bot at that time, that contestant forfeits that race.

Starting Positions
The Sumo 'bots will start back to back on opposite sides of the center of the arena. Where a Sumo 'bot may be of a design with no clear front and back, the front will be the direction it will first move when it starts.

Mechanical Rules
Sumo ‘bots must use only one RCX/NXT (with an additional limit of up to one battery box) and be no larger than the maximum size of:

Maximum Width: 30 LEGO studs
Maximum Length: 30 LEGO studs.

Sumo ‘bots may weigh up to, but not exceed, 3 lbs.

Construction Rules
Sumo ‘bots must be constructed of 100% unmodified LEGO brand parts. No adhesives or melting may be used in the construction of the Sumo ‘bot. The Sumo ‘bot shall be designed to remain as a single entity throughout the duration of a bout. It may not release either fluid or solid or trail wires, nets, chains or other forms of entanglement in any attempt to snare or impede the opponent by those means. Sumo ‘bots may not include offensive weapons or mechanical systems designed to dismantle the opponent. Contesting Sumo ‘bots are to be designed to primarily push, lift, rotate or overturn the opponent.

Eligibility
ANYONE is eligible to participate. However, if a coordinator or assistant wins the event, the next highest ranking score will be declared the official winner.

Registration
Registration is free, but required. Enter the information at the www.wichita.edu/shockermindstorms website and then show up with your Sumo ‘bot ready to participate at the designated time at the designated place!

Judging
This competition is intended to be informal, fun, and low maintenance. Please try to apply the rules in a fair, friendly manner. The decision of the judges during the competition is final.

Acknowledgment
These rules were borrowed heavily and slightly modified from the Brickfest2005 rules written by John Barnes. Additional rule ideas were acquired from TEXLUG at: http://www.io.com/~rueger/lego/txlug/sumo2005-2/sumo_rules_050827.htm