



Rube Goldberg® Machine Challenge!

Master-minding and inventing a successful, Rube Goldberg® Machine is an option for our Young Inventors. What is the Rube competition you ask? Reuben Lucius Goldberg (Rube Goldberg®) was born in San Francisco in 1883. His father, a practical man, insisted he go to college to become an engineer. After graduating from the University of California, Rube did a short stay with the City of San Francisco Water and Sewers Department. He continued drawing and soon got a job as a sports cartoonist for a San Francisco newspaper. An outstanding success, he soon moved to New York, drawing daily cartoons for the Evening Mail.

Through his inventions, Rube Goldberg® discovered harder ways to achieve easy results. His cartoons compressed time and were as he said, symbols of man's capacity for exerting maximum effort to accomplish minimal results. Rube believed that there are two ways to do things, the simple way and the hard way, and that a surprisingly large number of people preferred doing things the hard way. While most machines work to make difficult tasks simple, his inventions made simple tasks amazingly complex. Dozens of arms, wheels, gears, handles, cups, and rods were put in motion by balls, canary cages, pails, boots, bathtubs, and paddles.

Rube Goldberg® Machine Contest

The Rube Goldberg® Machine Contest brings Goldberg's cartoons to life in a way that pulls students away from traditional ways of looking at problems and sends them spinning into the intuitive, chaotic realm of imagination. The resulting inventions are collections of bits and pieces, parts of now useless machines, pieced together to achieve an innovative, imaginative, yet somehow logical contraption to conquer the job at hand. The contest shows us all the need for simplicity and the pitfalls of complexity.

How to Build a Rube Goldberg® Machine

Welcome to the wacky world of Rube Goldberg® Invention Machines. Take a few steps back from reality, gain a new perspective on how things work, and have fun by making a device that uses a complicated, roundabout process to complete a simple task.

Rube Goldberg® Machines are different from the machines people are used to seeing. A good —Rube incorporates everyday devices, but the innovators connect and use them in ways that may seem idiotic, ingenious, or even creative. The machine must use a certain number of individual steps to complete an assigned task, which is predetermined. It may take some time to put together, and may undergo months of strategy and planning; others are put together in a few days.

Over the years, the machines that have worked the best seem to be those that are built in sections, as opposed to pieces. The less work to assemble the machine, the better. A platform for the machine, with a simple and secure way to fasten it together, works well. Typical platforms are made of plywood and two-by-fours, with sections that are easy to connect.

Each machine is designed in its own way. Some machines are planned before the building takes place; others are assembled spontaneously. Maybe the best way is to use a little of both approaches. In the end, a numbered, detailed description of each step is needed.

The materials that are used are the most important components of the machine. Use what you find around the house, raid old toy chests, pick up all those broken appliances that never got repaired, and use them. Anything goes when you are building a Rube Goldberg® Machine! Goldberg knew no bounds when he created his machines, and that same attitude still applies. Follow the adage nothing is impossible if you try. Your imagination is your only limit! To achieve the best score possible, be sure you understand the rules and the judging form as presented. The Young Inventor's Form is included as a suggested guide.

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We suggest watching a few video clips of some Rube action!

[The Cog](#)

[The Princess Machine](#)