



Dimensions & Guidelines for Finished Machines:

Adapted from MIT Museum's Chain Reaction Event

- Each link in the chain reaction should be no wider than 2', no taller than 4', and no longer than 6', should use no chemicals (small amounts of baking soda and vinegar are OK), no plug-in electricity (batteries and low-power DC are OK), and use no more than a cup of water.
- Each link's action must be repeatable, so please test your chain reaction before bringing it to the event.

→ Each reaction should **LAST AT LEAST 30 SECONDS & RUN NO LONGER THAN 3 MINUTES**. This gives the audience time to enjoy your part of the event, be it funny, playful, clever, whimsical, or elegant.

→ There will be a section of the Chain Reaction connected by tubes or ramps to pass a single golf ball from machine to machine. You'll receive the ball at a height of 2" above table height and should then integrate this ball into your link, using it in any way that you can imagine. You'll release this same ball to the next link in the chain at a height of 6" (this is not a typo, we mean 6", NOT 2") above table height. We will use extra tubes, ramps and slides to transfer the ball from the 6" release point on your machine to the 2" receiving point on the next machine.

→ Alternatively, machines may be connected using single string pulls. These reactions must begin AND end with a string pull. Please be sure that it takes no more force than the hanging weight of a golf ball moving 1" to start your link and ends by pulling a string AT LEAST 1" in length with enough force to lift a golf ball.

2016 INAUGURAL THEME: **THE FORCE RECYCLES!**

Our inaugural theme takes its inspiration from the biggest movie of the year and our desire to shine a light on the recycling and composting initiatives taking place in the Mamaroneck School District. We encourage teams to incorporate recyclable materials and creative Star Wars themed elements into their links. Remember to build for anticipation and endurance as the Chain Reaction will run more than once! Incorporate as many triggers, gates, pulleys and switches as possible — the more twists, turns and surprises, the better!



You can find great tips on building from MIT Museum at: <http://web.mit.edu/museum/programs/fattips.html>

There are tons of inspirational Rube Goldberg and Chain Reaction videos on YouTube. Be sure to watch OK GO's music video *THIS TOO SHALL PASS* for an epic Chain Reaction!



The Chain Reaction Challenge is brought to you by
The STEM Alliance of Larchmont-Mamaroneck

www.LMSTEMALLIANCE.org