



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' (NOTE: This is the MAXIMUM size to fit on a table; links may be any size smaller than these measurements).
- Links 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. We will run the Chain Reaction several times during the event.
- Each reaction should **LAST AT LEAST 10 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.
- Each of the Chain Reaction links will be connected by tubes or ramps to the next link 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 either this same ball or another golf ball of equal size 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. The challenge is to have your ball end up higher than it started, giving a gravity boost to the ball as it travels to the next link. 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 also be connected using single string pulls at either end. If using string pulls, 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.
- Incorporate recycled bottles and packaging, old toys, dominoes, books, balloons - get inspired and make your Machine unique! 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!
- **Give your Machine a name** and create a sign to go on the front of the table it is displayed on!

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
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