

# Chain Reaction Machine



## STEP 1: GATHER INSPIRATION

Research and take inspiration from other people's chain reactions. Observe closely how they connect one movement to the next. Take notes if you need to!

- **Ok Go – This Too Shall Pass**
- **How to Pass the Pepper**
- **Cat Feeder Machine**

## STEP 2: CHOOSE A PROBLEM

You can't build a machine without knowing what you want your machine to do! Choose a simple task from the list below (or come up with a task of your own)

- Turn on/off a light switch
- Turn on the TV
- Hit snooze on an alarm clock
- Feed your pet if you are away for one day

## STEP 3: GATHER MATERIALS

To build a chain reaction you can use any materials that you can find around your home. Be creative! Practically anything can be used in a chain reaction. The following types of materials will be a good starting point.

1. Things to use as building material eg. cardboard
2. Things that roll eg. ping pong ball
3. Ramps and slides eg. old books

*Note: Try creating vertical components to use gravity as a helping hand to move your items – just like in Esplora's Ball Wall Fall exhibit*

## STEP 4: BUILD AND TEST

It's normal for your machine to fail the first couple of times, but don't let this discourage you! Find out what the issue is, fix it, and try again until you succeed.

Ask a guardian to send us your creation on social media! [#esploramalta](#)

## WHAT'S A CHAIN REACTION MACHINE?

Usually, these are machines built with everyday items which are designed to solve a simple problem in a complicated way. They are great examples of the law of conservation of energy as one action triggers the next!

## MATERIAL IDEAS

- Shoe boxes
- Wooden pegs
- Toilet paper rolls
- Plastic cups
- Toy cars
- Marbles
- Dominos
- Building blocks
- String Rubber bands

