

DESIGN THINKING ***EXERCISES I***

DISRUPTOR'S HANDBOOK #43

INTRODUCTION

This handbook is a collection of rapid prototyping exercises to stimulate team forming and imagination. It includes:

- Marshmallow Challenge
- Balloon Tower
- Road Marathon
- Projectile Challenge

These short form workshop techniques can be used interchangeably to kick start a sprint or workshop, re-energise participants after a break or just to interpret an uncreative flow.

The best way to record the event is through digital photography. Ensure that plenty of photos are taken throughout the exercises.

What you will need:

→ PARTICIPANTS

These workshop tend to work best with teams of 2-3 participants each.

→ MATERIALS

Pens, markers, Post-it notes, sticky tape, stars or stickers for voting, balloons, marshmallows etc.

→ LOCATION

Ensure there is plenty of room to spread out

→ DURATION

These sessions usually run for about 30 minutes each.



THE MARSHMALLOW *CHALLENGE*

THE MARSHMALLOW CHALLENGE

18 MINUTES

Small teams are asked to build the tallest, most cost-effective, free standing tower using just balloons and some sticky tape within a set time.

KIT

Each team should have the following:

- 50 x Balloons
- 1 x Roll of Sticky Tape

INSTRUCTIONS

- Build the tallest freestanding structure and place the entire marshmallow at the top.
- Use as much of the kit as you need. Break up the spaghetti, string and tape as required.

FOR THE FACILITATOR

- **Walk around the room** - Watch and comment on what is happening.
- **Countdown the time** - Usually, I call 12 mins, 9 mins (half-way), 7 mins, 5 mins, 3 mins, 2 mins, 1 min, and 30 seconds. Countdown the last 10-seconds.
- **Call out how the teams are doing** - Let the entire group know how teams are progressing. Raise the energy and the stakes.
- **Remind the teams that holders will be disqualified** - The winning structure needs to be stable.



THE BALLOON *TOWER*

THE BALLOON TOWER

10 MINUTES

Well known but fun activity that drives creative problem solving in small teams.

KIT

Each team should have the following:

- 20 x Spaghetti Sticks
- 1m x Masking Tape
- 1m x String
- 1 x Marshmallow

INSTRUCTIONS

- Build the tallest, most cost effective tower using only balloons and tape.

DETERMINING THE WINNERS

	HEIGHT	COST-EFFICIENCY
1st	15 points	15 points
2nd	13 points	13 points
3rd	10 points	10 points
4th	8 points	8 points

FOR THE FACILITATOR

- **Walk around the room** - Watch and comment on what is happening.
- **Countdown the time** - Usually, I call 5 mins, 2 mins, 1 mins, and 30 seconds. Countdown the last 10-seconds.
- **Call out how the teams are doing** - Let the entire group know how teams are progressing. Raise the energy and the stakes.
- **Remind the teams that holders will be disqualified** - The winning structure needs to be stable.



ROAD MARATHON *CHALLENGE*

THE ROAD MARATHON CHALLENGE

20 MINUTES

Small teams use the materials available to make a Matchbox car travel 2m without pushing it.

KIT

Each team should have the following:

- 2 x Matchbox Cars
- Newspaper
- 1 x Roll of Sticky Tape
- Scissors
- Craft Box
- Pipe Cleaners
- Paddle Pop Sticks
- Decorations
- Glue

INSTRUCTIONS

- Teams are asked to use what they have to create a way to make a Matchbox car travel at least two metres.
- Teams are allowed to spy on others, barter, or trade if they choose to.

FOR THE FACILITATOR

- **Walk around the room** - Watch and comment on what is happening.
- **Countdown the time** - Usually, I call 5 mins, 2 mins, 1 mins, and 30 seconds. Countdown the last 10-seconds.
- **Call out how the teams are doing** - Let the entire group know how teams are progressing. Raise the energy and the stakes.
- **Mix up the kits** - Don't make it an even playing field. For example, maybe one or two teams have the scissors. Or no tape.



THE PROJECTILE *CHALLENGE*

THE PROJECTILE CHALLENGE

20 MINUTES

Small teams are asked to find a way to launch an eraser from a starting point into a cup.

KIT

Each team should have the following:

- 1 x Eraser
- 1 x Roll of Sticky Tape
- 1 x Cup
- Scissors
- Ruler
- String
- Pipe Cleaners
- Paddle Pop Sticks
- Ping Pong Balls
- Glue

INSTRUCTIONS

- Teams are to engineer a system that connects various pieces together over 1m in length. The end objective is to drop or launch an eraser into a cup.

FOR THE FACILITATOR

- **Walk around the room** - Watch and comment on what is happening.
- **Countdown the time** - Usually, I call 5 mins, 2 mins, 1 mins, and 30 seconds. Countdown the last 10-seconds.
- **Call out how the teams are doing** - Let the entire group know how teams are progressing. Raise the energy and the stakes.

MORE PROTOTYPING SUPPORT

The rapid prototyping exercises in this handbook are great as an icebreaker activity at workshops and hackathons.

For more specific design thinking and design sprint support, check out our workshop series.



TAKING IT FURTHER

This handbook is not just a document that sits in a folder or in a drawer. It is part of a suite of tools that can help you drive and grow your business.

Need to take your skills or business to a new level?

Join our virtual accelerator or take a short course.
Register at Disruptors Academy.

 **DISRUPTORS**
ACADEMY

GET IN TOUCH

Gavin Heaton:

+61 421 470 365

gavin@disruptorsco.com

Joanne Jacobs:

+61 419 131 077

joanne@disruptorsco.com

Twitter:

[@DisruptorsCo](https://twitter.com/DisruptorsCo)

DISRUPTORSCO.COM



Disruptors Co
Level 4, 91 Campbell St
Surry Hills NSW 2008

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innovation for changing
times.”*

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