



1

## The bridge

Players: whole group

### Resources

- A piece of string long enough for the full group to stand on

### Instructions

Each player must stand on the piece of string, the 'bridge'. They can take one foot off the bridge. If they take both feet off the bridge, they fall off! To be allowed cross the bridge, the group must arrange themselves in a specific order (e.g. alphabetically, by birthday) without anybody falling off the bridge.

### Objectives/outcomes

This game encourages communication and teamwork. A follow-up discussion regarding thinking about your teammates as well as yourself (e.g. stepping back to let people pass) and a second attempt at the game is worthwhile.



## 2

## Robot maze

**Players:** Ninjas can work in teams or individually

### Resources

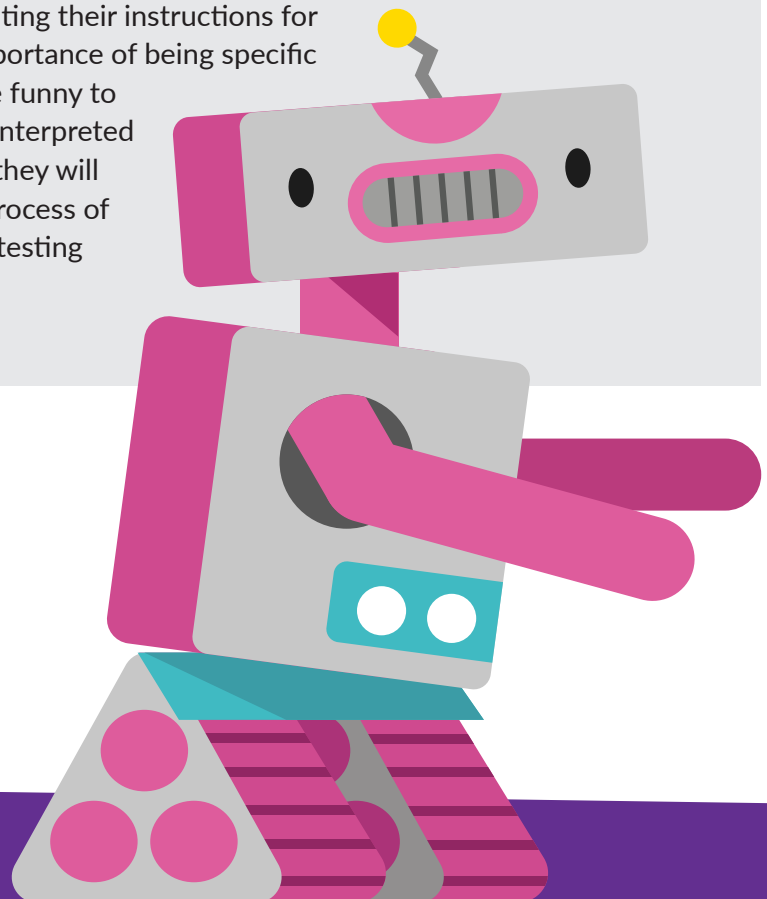
- A few square metres of space for walking around
- Masking tape, string, or other objects with which to outline or construct either a maze or a set path to follow on the floor
- Paper and pens or pencils

### Instructions

Using the tape or other items, define a path or a maze on the floor. Nominate a mentor to act as the robot. The aim of the game is to guide the robot to the end of the path. Ninjas write down a set of instructions for the robot to follow. The mentor acting as the robot should follow the instructions literally, making no assumptions about context or implied meaning. The exercise may take a few iterations to successfully get the robot to the end! Ninjas may also choose to test their instructions themselves as they write them.

### Objectives/outcomes

This game illustrates that computers cannot 'think' for themselves, but instead operate by exactly following specific instructions (code). Ninjas essentially invent their own programming language when writing their instructions for the robot. They will learn the importance of being specific and verbose – it can be often be funny to see how instructions can be misinterpreted when taken literally. In addition they will naturally discover the iterative process of testing your code, fixing it, then testing it again.



## 3

# The low-tech social network

Players: whole group

## Resources

- Paper and pens or pencils
- 'Social network profiles': sheets with a few fields for information and number of 'shares'; sample field ideas:
  1. Name
  2. Colour of socks
  3. Star sign
  4. Favourite subject
  5. Favourite website

## Instructions

### Part 1

- Participants fill out social network profile sheets
- Find others who have the same for one of the items 2-5 on their sheet, and have them sign beside that item
- 'Winner' is the first to get four signatures, meaning the most friends!

### Part 2

- Find someone whose profile shares one item with yours, and swap profile sheets
- Find someone else (not the same person as before!) whose profile shares one item with yours, and swap profile sheets again
- Repeat, and count your shares!

## Objectives/outcomes

Getting to know each other



4

# Lingo Bingo

Players: whole group

## Resources

- Pens and Lingo Bingo sheets
- Optional: pack of sweets/stickers as prize

### For the Lingo Bingo sheets:

Paste the buzzwords below (or add your own) into a Bingo sheet generator to create a variety of Bingo cards for your Dojo attendees. A good site to do this for free is [dojo.soy/lingo](http://dojo.soy/lingo), but there are lots of others.

HTML, IoT, Embedding, Site map, UI, Front-end development, database, Python, JavaScript, WordPress, NodeJS, Raspberry Pi, Arduino, PHP, Ruby, Scratch, CSS3, C++, Element, Meta, Opening and closing tags, Git, MySQL, Minecraft, Back-end development, API, App, Syntax, Bug, Software, Text editor, Version control, Web server, Caching, Cloud computing, Firewall, Router

## Instructions

Each person gets a Lingo Bingo sheet. A mentor calls out buzzwords in a random order, and Ninjas mark off each word they have on their sheet, just as they usually would for Bingo. The Ninja who gets all four words in their sheet's corners, the first line of words, and then all the words in their grid, wins.

To add another layer to the game, you can get Ninjas to explain each phrase (simply) as it is called out.

After the game, you can encourage the Ninjas to research the phrases to gain more knowledge.

## Objectives/outcomes

Helping young people become familiar with coding terms.

4

2

9

22



12

## 5

# 'Rock, Paper, Scissors' tournament

Players: whole group

## Resources

Understanding venue neighbours — this game only lasts for a minute but it can get noisy!

## Instructions

Everybody plays one game of 'Rock, Paper, Scissors' against a random opponent. The winner becomes a 'champion' and the loser is out and becomes a 'supporter'. Each champion quickly finds another champion and plays another game, while the supporters must cheer and chant the name of their champion. Defeated champions become supporters. After two wins, a champion has three supporters. After the third win, they have seven. We quickly have two champions left, each with roughly half the Dojo cheering them on.

## Objectives/outcomes

This game is really about the supporters. As part of a team, you may not always get your own way, but you will have to join in and work hard for the team whether your idea got chosen or not!



## 6

## Introduce a teammate

**Players:** whole group, in pairs initially

### Resources

**Optional:**

Pen and paper for Ninjas

### Instructions

The group splits up into pairs, and pairs ask questions to find out things about each other, writing down answers if they wish. The group reassembles, and then each person introduces the other person in their pair to the rest of the group, mentioning at least three pieces of information they learned about their teammate; name, age, or school do not count.

This game helps the young people in the Dojo to get to know each other, and it's also a very simple introduction to planning and delivering a presentation.

