The background features several sets of curved lines in the top-left and bottom-right corners. Each set consists of a solid grey line, a dashed grey line, and another solid grey line, all curving towards the center of the page.

Hello... and  
welcome to the  
Technology for  
Good Design  
Challenge

- **Make yourself a name badge while you're waiting**
- **If you have a technology background or know about programming or electronics, please mark a blue dot on your badge**

# Design Challenge: Technology for Social Good in the Classroom

Technologies PGDE Primary

# Purpose

- **Welcome to our visitors!**
- **Today we'll be working together on a design challenge to generate ideas for classroom projects which use technology for social good**
- **PGDE students: you'll learn about new maker technologies with support from technical experts. You'll contribute your knowledge of pedagogy and children.**
- **Informatics/ technology students: you'll learn about what technology is appropriate for different ages or stages of children and what they care about. You'll contribute your knowledge of technology and programming**
- **TOGETHER: you'll play with new technology and design an exciting classroom project for social good**

# Outline

- **Intro (15 mins)**
  - What we mean by "technology for social good"
  - Some examples of technology projects
- **Your learning in groups in class**
  - *Step 1: Play and discuss (35 minutes)*
  - *Step 2: Design and prototype (1 hour)*

The background features a series of concentric circles in light gray, some solid and some dashed, creating a ripple effect. A large red speech bubble shape is centered on the page, containing the title and author's name.

# Technology for Social Good

Tommy Lawson

A red speech bubble graphic with a white outline, containing the text 'What is technology for Social Good'. The bubble has a tail pointing downwards and to the right.

## What is technology for Social Good

*At its heart, it's all about people. People using the power of tech in myriad ways, both simple and extraordinary. This can be a combination of many things - to help redistribute power, give agency to people, help people make more informed decisions, create ways for people to connect, participate, address health or care needs and save energy. It can even make life-saving information and resources more discoverable.*

(DAMA SATHIANATHAN, 2017)

SEAVAX  
Robotic Sea  
Cleaner



# Sustainable Food Production



# Artificial Intelligence in Health



# Eye Gaze in Education



Recycling



Why?

Tech for Social Good?

- **Compassion, Creativity and innovation**
- **Making & Teamwork**
- **Young people really care about doing good**
- **FUN**

# What is possible with the technology?

Kate Farrell

# Microbit Step Counter



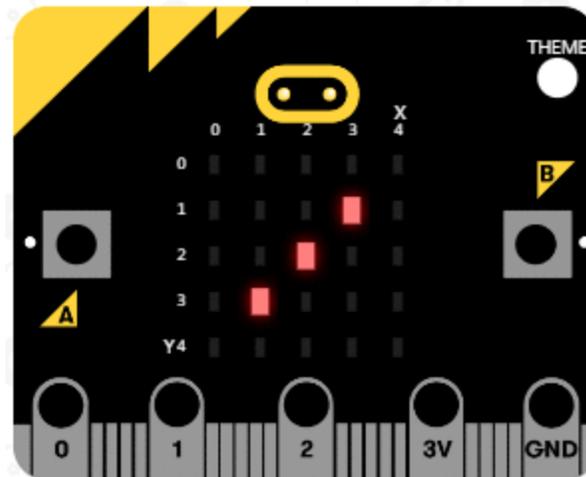
Morse code  
microbit  
communication



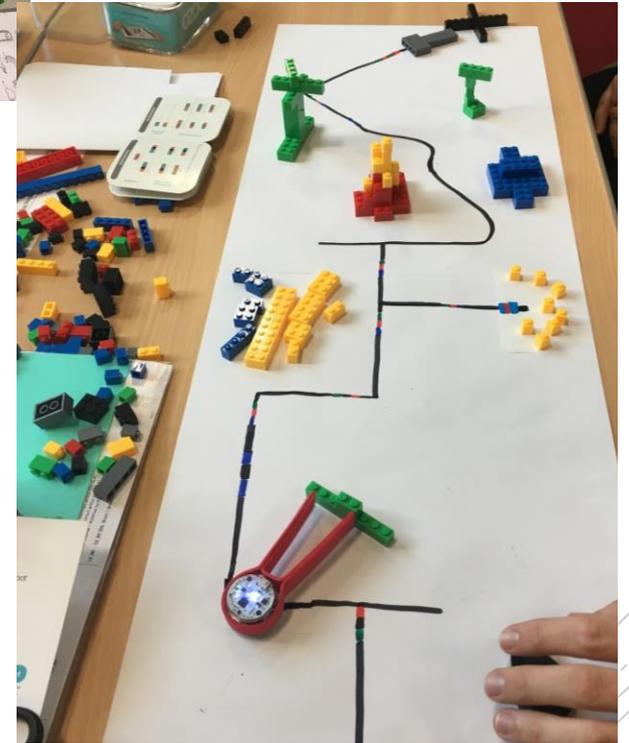
# Microbit Lego House



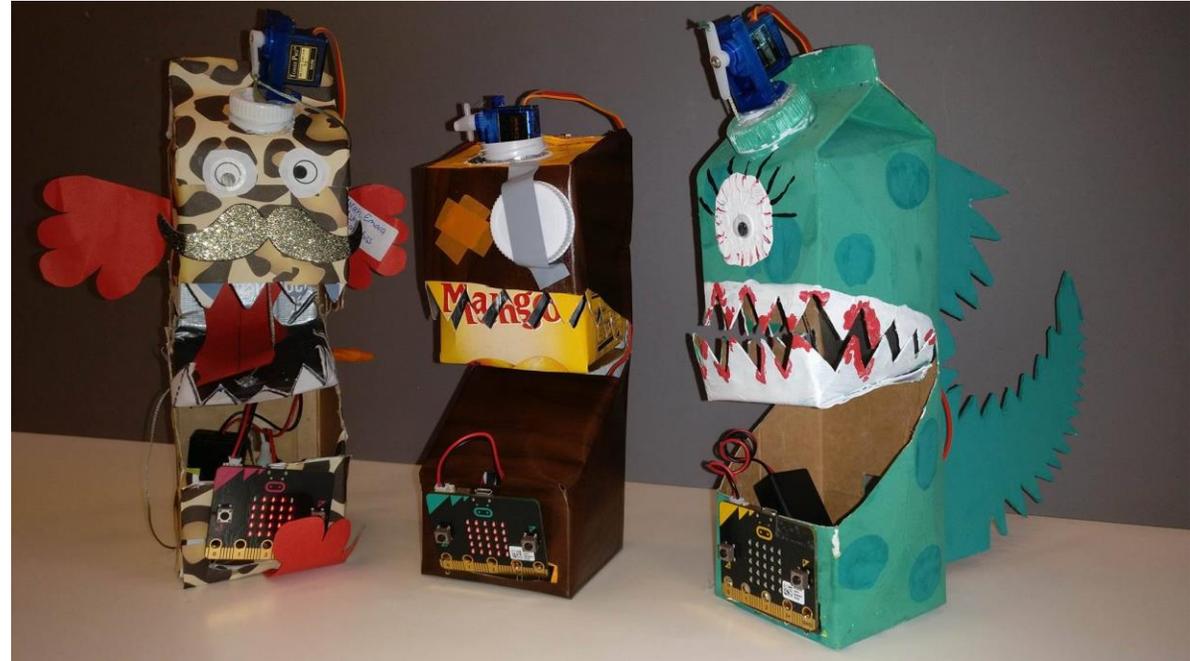
Board game  
with Microbit  
dice/score



# Ozobot maze / assault course



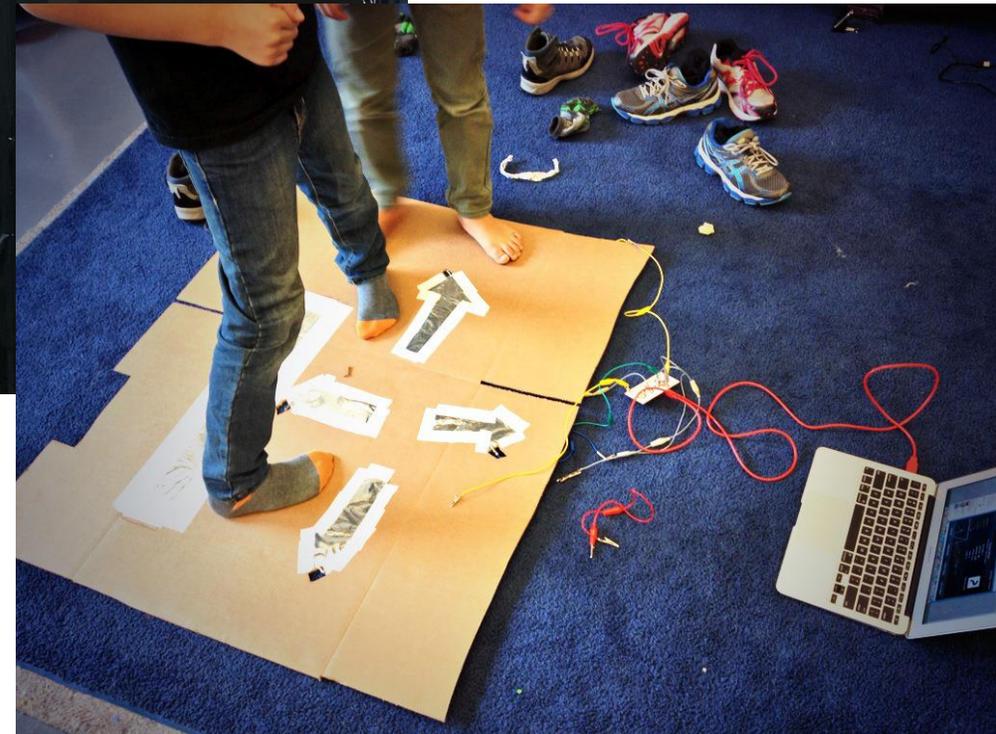
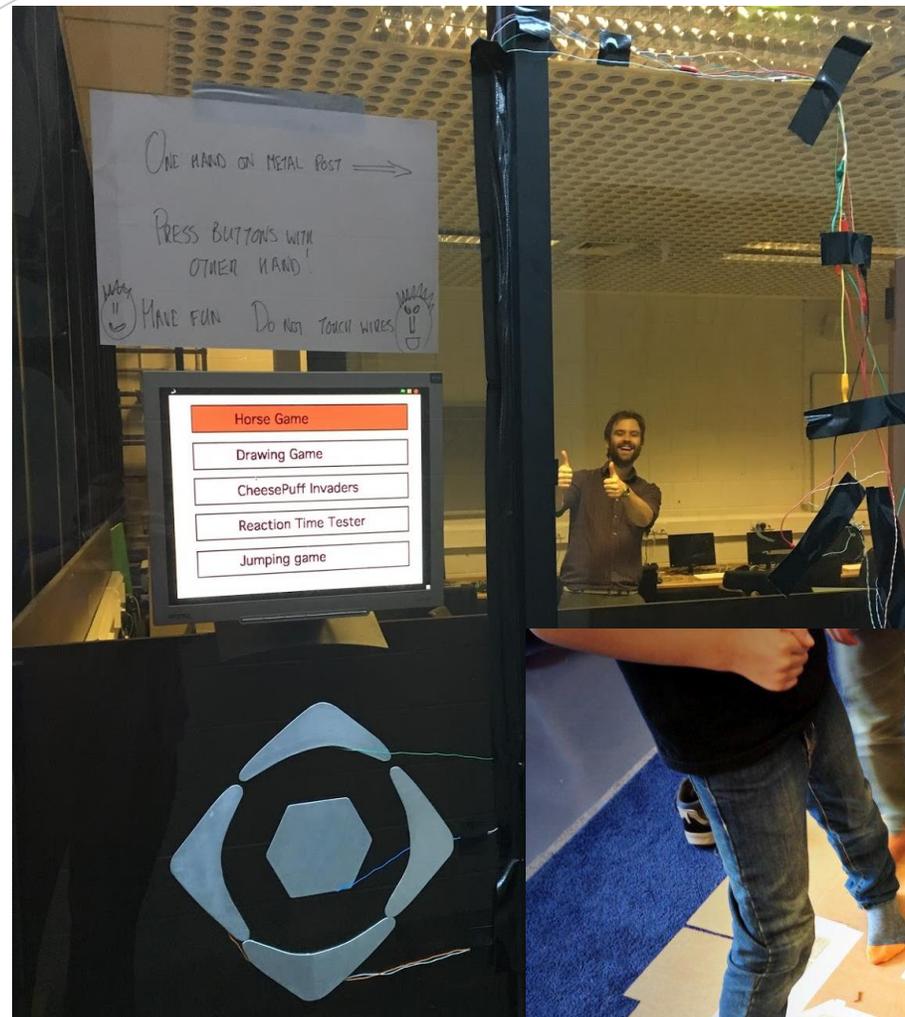
# Recycled Microbit Monsters

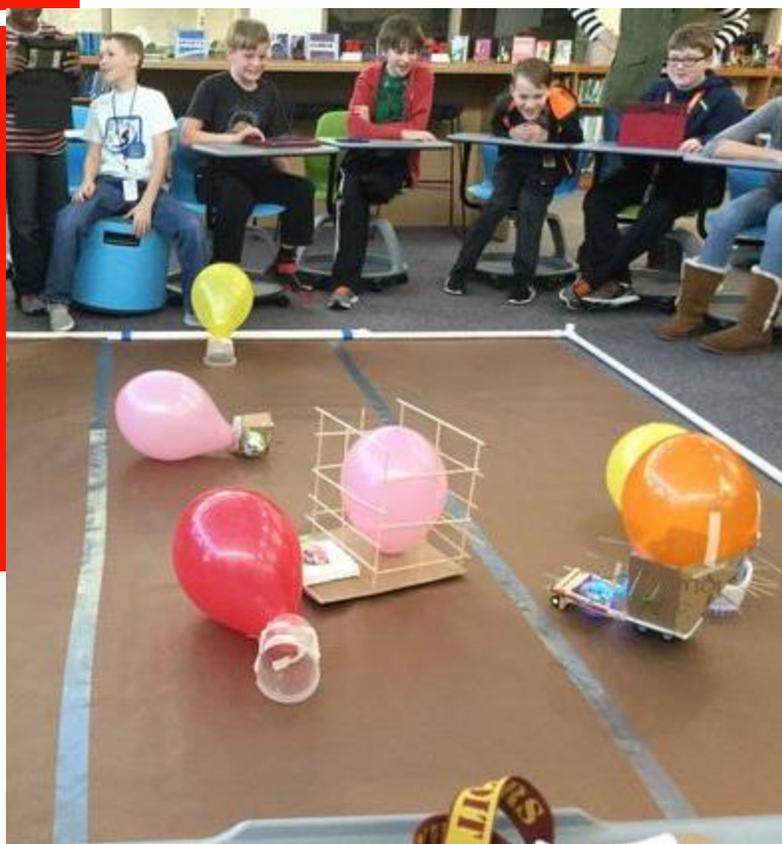


# Papercraft Microbit Monsters

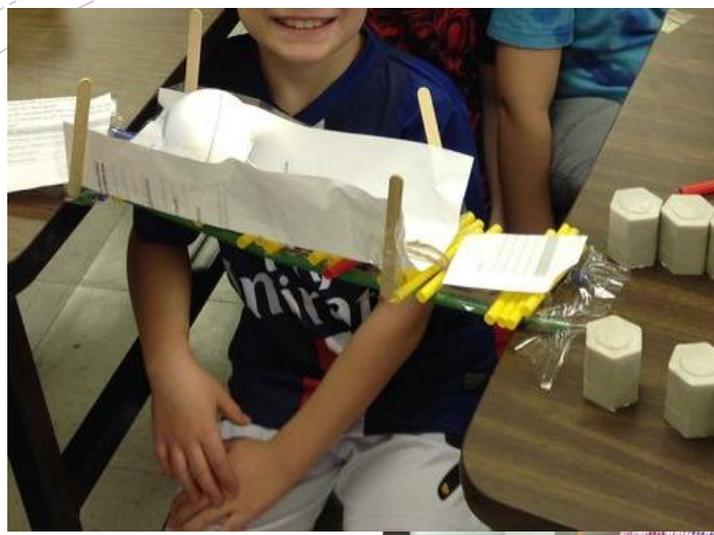


# Makey Makey cooperative games





# Sphero bridges and mazes



Sphero race  
tracks and mini  
golf



# VEX ROBOT



# Virtual & Augmented Reality



## Play and discuss

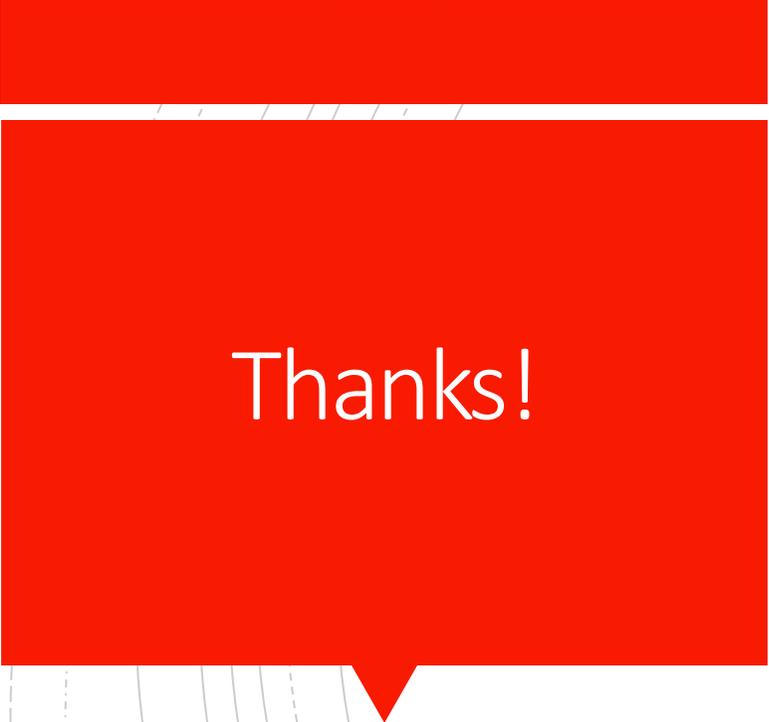
- Discuss which problems you think the children care most about, and what technologies would be suitable for them to work with.
- Experiment with the tech and paper resources at your station. What ideas come into your head as you make? As you play, chat with your group to decide:
  1. *What societal problem will the kids address?*
  2. *What mix of technologies will you use?*

<https://makeymakey.com/pages/how-to>

<https://www.microbit.org>

## *Design and prototype*

- Use the technology and art materials to rapidly prototype an example design. This will give you an idea of the sorts of challenges the children might come across when they try to do it. For example, you could make a paper prototype, sketch a storyboard, develop a wireframe, or program/build a simple version.
- Note that this is the design phase of your product and therefore you will not complete a fully working product in the time allowed. However, you should be able to fully describe the functionality of your model/prototype.
- <https://www.storyboardthat.com/storyboard-creator>
- Or you can sketch it by hand!

A large red speech bubble graphic with a white outline, containing the text "Thanks!".

Thanks!

- If you'd like to learn more, there are still free places on our seminar about digital learning in schools on Friday
- <https://www.de.ed.ac.uk/event/seminar-digital-learning-schools>