# Beyond Code Club

## Ivan Griggs

# Thinking cap - 1

A family member, relative, or friend is impressed by the quality of your drawings, and suggests that you might show them in an exhibition.

What would you need to make this happen?

# Stages of a project

- Design
  - What? Resources? Skills? Time?
  - Code Club does this for you

- Build
  - Code, hardware
  - Follow the instructions

- Test
  - Run it, check it is typed properly

- Maintain
  - Release, bugs, versions, new functionality
  - Code Club does this for you

# Thinking cap - 1

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What would you need to make this happen?

# Thinking cap - 1

- Drawings

- Display room, boards, frames?

- Sales? Ordering?

- "Utoob" - online display?
  - check if there is significant interest
  - media: paper and electronic pictures
  - replay video in display room?
  - Is it what people expected?

# What else?

- Design
  - Limits? Project Outline /summary
  - Coordination? Leadership?
  - Phases / releases?
- Build
  - One person or many?
- Test
  - When? What?
  - Does what it should? Doesn't do what it shouldn't?
- Maintenance
  - Finished or continue? Communications?

# Thinking cap - 2

You are explaining your Raspberry PI to a family member, relative, or friend. They ask you if it can show the temperature.

What would you need to make this happen?

# RPi thermometer

- Existing commercial
- Existing project
- Thermometer device
- Electronic circuit
- Location (& case)
- Where to 'see' result
- Which Pi model?

- Code to read a result
- Code to repeat result
- Result text, GUI, HTML
- Saving results, graph
- Access to Pi; e.g. SSH, VNC, RDP
- Security

# Thermometer - skills

- Electronics / wiring

- Case build

- Code language(s)
    - GPIO, GUI, HTML, database

- Maths / statistics

- Leadership

- Testing

- Documentation

# Scratch

Volunteers to help to design a project?

Watch this Scratch Project...

# Demonstration - Scratch

Scene: Park, with pond and birds

actor1 enters from right, looks at pond

actor2 enters from left, also looks at pond

actor2: "Hello"

actor1: "Hello, nice here isn't it?"

actor2: "Hey, what do you call a man with a seagull on his head?"

actor2: "Cliff!"

# Demonstration - Scratch

- Making this a project of collaboration for several people

- How many 'parts' make up this 'video' (there is no user interaction in this)?

- What skills are required?

# Summary

- Design decided before coding starts (how much detail?)

- What 'parts' are required?

- What skills are required?

- What is the future of the project?

- Use intermediate milestones (in design)?

- Testing? Documentation? Release?

- Planning and communication?