

Tiles for Tales

Creating interactive physical computing activities for storytelling

Overview:

- ▶ Links storytelling with technology
- ▶ Introduces circuit design and control using ScratchX in a creative context
- ▶ Creates a network of interactive tiles on wifi using Arduino + ESP8266
- ▶ Collaborative group activity

What is a Tile?

- ▶ A tile represents a scene or character
- ▶ Can use different materials, eg felt, paper
- ▶ Each tile is controlled by a Scratch extension
- ▶ Uses wifi and a microprocessor in each tile
- ▶ Its an individual component and can be part of a larger installation

Inspiration: story stones

- ▶ Encourage the development of imaginative and creative play within children
- ▶ Used to facilitate storytelling, encourage communication and imaginative play
- ▶ Children can make up their own story by picking out stones from the bag

How are Tiles used?

- ▶ User chooses what tiles are activated
- ▶ Tiles used to tell a story through ScratchX
- ▶ New tiles can be created as a group project

How does this work?

- ▶ Uses TileNet software
- ▶ ScratchX extension and arduino code
- ▶ Adafruit Feather Huzzah
- ▶ Based on ESP8266 chip and wifi

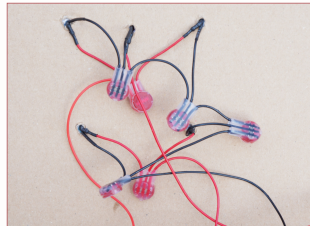
1) Create an example tile to explore



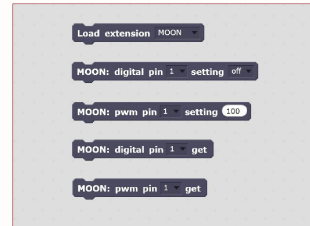
2) Design a tile and plan interaction



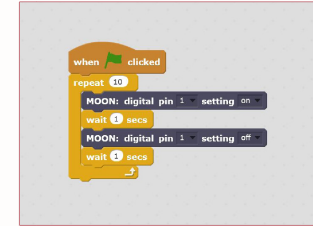
3) Build tile + wire circuit + test



4) Write scratch code to implement interaction



5) Write scripts to interact with tiles



6) Create an example tile to explore



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Acknowledgement: Scratch is developed by the Lifelong Kindergarten Group at the MIT Media Lab. See <http://scratch.mit.edu>