

# Prewired.

this is what we do



May 2015

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Prewired is a programming club for young people under the age of 19 and is based in Edinburgh. Participants attend weekly evening sessions where they improve their skills in digital technologies within a friendly, collaborative and supportive environment. They pursue a wide variety of projects, including web development, mobile applications, games and constructing robots and other hardware devices.

Prewired sets no lower bound on the age or experience of participants, as these do not help us to understand an individual's abilities or potential. The only requirement for attendance is enthusiasm about programming and a desire to learn.

# A Brief History

The University of Edinburgh's School of Informatics has built up an impressive track record of outreach activities to introduce young people to the full breadth of computing ideas and practice, and within that tradition has provided a local centre for the **Young Rewired State** annual week-long **Festival of Code** since 2012. In 2013, we entered three teams into the final competition of the Festival of Code and although they didn't win any prizes, they did brilliantly well. This experience, and the



enthusiasm, knowledge and ideas of the participants, inspired us to pursue longer-term means of encouraging young people to engage with programming and related activities in Edinburgh.

Thus, Prewired was born, with these objectives:

- opening the eyes of young people to the possibilities presented by programming;
- supporting young people in experimenting with the technologies that seem interesting to them;
- guiding young people to resources for self-teaching, and towards best practices;
- providing an environment in which young people can safely engage with like-minded peers to work on projects of their own design, and can safely gain access to mentoring by adults from academia and industry; and
- encouraging idea generation, team building and gathering of technical skills in preparation for suitable hackathons, like Young Rewired State.

## GOVERNANCE

Prewired policy is determined by an eight-person Management Committee whose composition reflects its varied stakeholders: staff and students from the University of Edinburgh, parents, Prewired members, and the voluntary sector.



## Launch

The Prewired launch was held on the morning of 16th October 2013, in the University of Edinburgh's Informatics Forum. Thirty eight young people between the ages of 4 and 18 attended, while 15 mentors—university students, staff and local industry professionals—came along to help. Following on from the launch, we held Prewired on a biweekly basis on Wednesday evenings in one of the School of Informatics computing labs in Appleton Tower. Despite minimal advertising, a devoted cohort of young people attended during 2013-14 on a regular basis, often accompanied by a parent, with numbers consistently in the 20-30 range.

## Moving to CodeBase

In January 2015, faced with the imminent unavailability of Appleton Tower lab space due to refurbishment works, Prewired moved location to **CodeBase**, a UK-leading tech incubator based in central Edinburgh, and due to the high level of demand from participants, began offering sessions on weekly basis. One benefit of the move has been that staff from tech companies housed in CodeBase have also started to offer mentoring support.





# A Prewired Snapshot

The full roster of regular Prewired attendees comprises 40 young people. In a typical evening session, we will host around 25 regulars and another handful who are new or who drop in more occasionally.

Running Prewired sessions on a regular basis has only been made possible with the voluntary support of a core group of around half a dozen dedicated mentors, mainly undergraduate and PhD students at the School of Informatics. Valuable contributions to the mentoring effort have also been made by students from **Napier** and **Heriot Watt** Universities, by independent developers and by staff from local tech companies. Our list of regular mentors currently comprises 18 people, of whom six are registered under Disclosure Scotland's PVG Scheme.

8

Average number of mentors per session

27

Average number of young people per session

34

Prewired evening sessions in the last 12 months





## Broadening Our Scope

Apart from the regular evening sessions, and participation in the Young Rewired State annual Festival of Code, Prewired has been involved in a number of other initiatives.

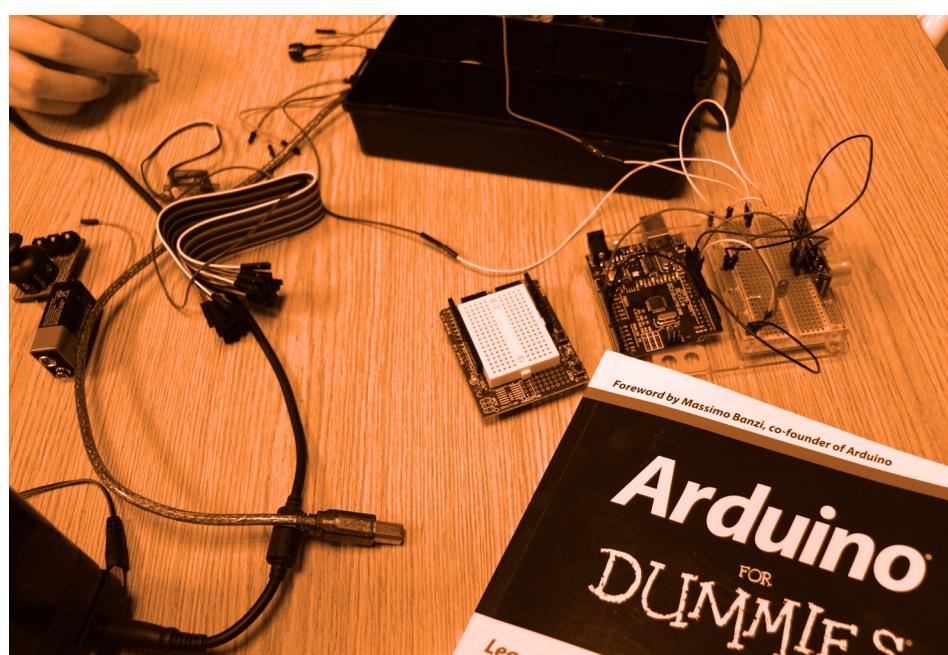
### Prewired Mission

Many schools do not yet offer appropriate computing classes, and curricula that do exist can be patchy. The technology industry is an ever growing one, and at the moment there are more software engineering (and similar) jobs in the world than there are people qualified to fill them. Gifted and enthusiastic young people should not be deterred from pursuing computing qualifications and roles just because they were never made aware of the opportunities available, and it's too important and urgent to wait for schools to catch up.

But learning to code doesn't only qualify you to be a coder. As our world becomes increasingly technologically-oriented, understanding the process of creating the software that powers our daily lives becomes crucial for everyone. Becoming an empowered digital citizen—or professional in another industry—allows people to navigate their rights and responsibilities and make informed decisions about the products and services they use, or provide to others.

We think technology can help us move towards a better world, but only if future generations understand the opportunities it brings and the impact it can have.

- we held week-long hack sessions during the **Edinburgh International Science Festival** (April 2014, 2015);
- we hosted a stall at the **Edinburgh Mini Maker Faire** (April 2014, 2015);
- we entered two teams into the **First Lego League Regional Finals in Edinburgh**, reaching the semi finals and winning the team presentation prize (November 2014);
- we became affiliated with **CoderDojo** (January 2014);
- we became part of the **STEM Ambassador network** in March 2014.



# Plans

Over the coming year, Prewired will focus on the following goals:

- Increase our stock of laptops for use by participants.
- Build up a bigger inventory of Arduino and Raspberry Pi components and accessories.
- Work with CodeBase to provide more flexible seating for a larger number of participants.
- Provide better infrastructure for delivering and hosting teaching materials.
- Enable Prewired mentors from the University of Edinburgh to qualify for the Edinburgh Award (a formal recognition of the value of extra-curricular activities for both students and potential employers).



## Who We Are

Prewired was founded in 2012 by Ewan Klein, Freda O'Byrne, Amy Guy, Kit Barnes and Stuart Anderson, and is run by Rikki Guy and Amy Guy.

### Management Committee

Yulasy Bodasing (Treasurer)

Martha Gilmore

Amy Guy (Secretary)

Rikki Guy

Ewan Klein (Chair)

Freda O'Byrne

Eder Coelho Paula

Stuart Roebuck

### Mentors

Amy Guy

Cameron Gray

Craig Snowden\*

Eder Coelho Paula

Freda O'Byrne

Gregor Wilson\*

Hamish Hutchings

Harry Reeder

Heather Bayfield

Helen Williams

James Baster

Kit Barnes

Luke Shrimpton

Miguel Baptista

Nantas Nardelli

Ragna Soennechen

Sorcha Gilroy

Stuart Roebuck

\* = Prewired alumnus

# Sponsors & Supporters

In addition to the generous provision of accommodation from the School of Informatics and CodeBase, Prewired is grateful for the support it has received, both as in-kind donations and as funding, from three Edinburgh-based tech companies, namely Skyscanner, Kotikan and Port80.



THE UNIVERSITY OF EDINBURGH  
**informatics**

**CODEBASE**

skyscanner

:80

**kotikan**  
bringing life to mobile

## Free and Open Source Software / Hardware

Prewired projects are only possible due to the wealth of free and open source software and hardware that has been developed by communities around the world.



python™

SCRATCH

ubuntu®



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