

# Time of Your Light: Illuminating Electronics for Scouts and Guides

## Information for Supporters

Help spark the  
imagination of  
future engineers

Find out how you  
can help on page 4



**Chatsworth House Estate**  
**26–31 July 2015**

## What is Time of Your Light?

"Time of Your Light" is a joint initiative between the Institution of Engineering and Technology and the Peak 2015 Scout & Guide jamboree. Our goal is to inspire thousands of young people to discover the excitement of engineering and technology. We will deliver an engaging, hands-on soldering activity over five days of camping at Chatsworth House Estate, Derbyshire, 26-31 July 2015.

Scouts and Guides attending Peak 2015 will be able to enjoy soldering their own electronic badge. The badges will light up and can be reprogrammed by the young people to flash with different patterns. Credit will be earned towards the Scouts' IET Electronics badge and the Guides' Scientist badge. With the generous support of dozens of businesses and individual volunteers, we will fulfil our vision for the badges to be brought together for the closing ceremony to form an amazing animated light installation.

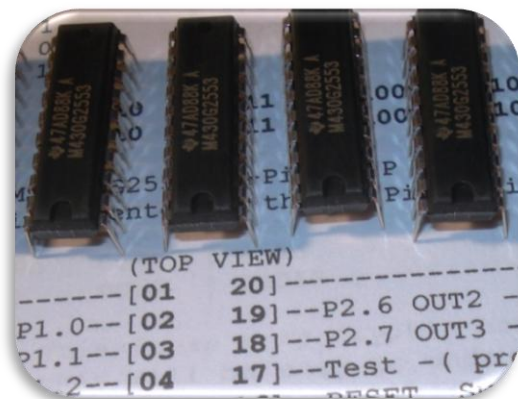


## Why electronics at a Scout and Guide camp?

We all rely on electronics every day of our lives, but there is now a huge mismatch in the UK between the demand for engineers and technicians and the number of people qualifying in relevant fields. The IET and the Scouts and Guides associations recognise that initiatives such as Time of Your Light are essential to inspire the next generation. Plus of course, soldering your own programmable badge is great fun!

Scouting exists to actively engage and support young people in their personal development, empowering them to make a positive contribution to society. Girl Guiding has a mission to enable girls and young women to develop their fullest potential as responsible citizens of the world.

The Institution of Engineering and Technology aims to introduce a new generation to the sheer excitement of science, technology and engineering as a key part of our vision of "working to engineer a better world".



**MSP430G2553 microcontrollers**

Building on our shared goals and values, the IET has been working closely with the Scout Association over a number of years. In 2011 we jointly launched an all new Electronics badge, which we continue to sponsor. Last year, Peak 2015 ([www.peakcamp.org.uk](http://www.peakcamp.org.uk)) invited the IET to join them as part of a drive to help Scouts and Guides engage with real engineers.

## What are we planning?

The theme of the week at Peak 2015 is Time. **Flashing lights** is a great fit, as a timer circuit is needed to control the on/off sequence. And of course there is plenty of opportunity to show off your illuminated handiwork round the campfire!

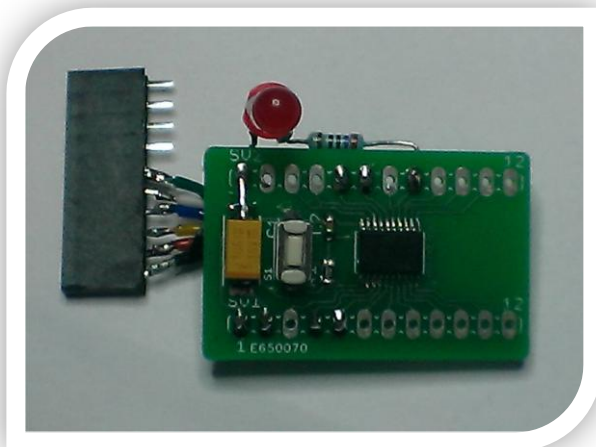
The circuit uses a **programmable** chip, which keen youngsters can optionally reprogram to flash **different patterns** (e.g. their name in Morse code). The chip also has a signal input. If we can raise sufficient funding and support, we will extend the concept to bring all the badges together on the final evening and create one or more **animated installations**. We envision a **giant clock** that will count down to the grand finale.



Flashing badge with ID lanyard

Our activity will be aligned with the requirements of both the Scouts' IET Electronics badge and Guides' Scientist badge. The most difficult part of the Scouts' badge for a lot of young people to achieve is the requirement to **solder a circuit**, so we have designed the activity around supporting that.

Approximately 7000 young people will be attending the camp, of which 4000 will be involved in the various activities. Based on the organisers' experience and our research (including a successful trial activity in January) we expect to welcome **1000 participants** to the IET electronics activity over five days.



Prototype circuit board evolution

## How can you help?

Many organisations, businesses and individual volunteers have already donated substantial resources, equipment, time and expertise to help us make this illuminating educational activity a reality. We still need more help to make sure the event goes off without a hitch and would be delighted to hear from you.

To help us realise the full vision of creating a truly memorable, animated installation, we are seeking support from individuals, charities and commercial organisations:

<b>Volunteers</b>	<ul style="list-style-type: none"> <li>• Activity developers – electronics, software, installations</li> <li>• Supervising staff with soldering, electronics and programming experience</li> <li>• Helpers for half a day or more days at Peak 2015 – full training available</li> </ul>
<b>Funding</b>	<ul style="list-style-type: none"> <li>• Small and large contributions welcome</li> <li>• Help us pay for the components, equipment, printing, professional services and other costs not covered by donations in kind</li> </ul>
<b>Donations of materials</b>	<ul style="list-style-type: none"> <li>• Electronic components, circuit boards, soldering consumables</li> </ul>
<b>Loans of equipment</b>	<ul style="list-style-type: none"> <li>• Soldering equipment including: irons, clamp stands, magnifiers, suckers, personal protective equipment</li> <li>• Computers for programming</li> <li>• Display screens</li> </ul>
<b>Promotion</b>	<ul style="list-style-type: none"> <li>• Share this brochure with friends and colleagues</li> <li>• Write an article</li> <li>• Ask if your company can get involved</li> </ul>

**Details for transferring funds** (please e-mail too so we can publish your name)

**Please make sure cheques/transfers are made out in British Pounds. Cheques should be made payable to "Peak Camps".**

<b>Bank</b>	Unity Trust Bank	<b>Account Name</b>	Peak Camps
<b>Sort Code</b>	08-60-01	<b>Account Number</b>	20334918
<b>Reference (IMPORTANT)</b>	IETTimeOfYourLight		
<b>IBAN</b>	GB11 CPBK 0800 5150 0732 10		
<b>Swift/BIC</b>	CPBKGB22		

***To ensure that funds reach the right activity, please ensure all donations are clearly marked with our unique reference: IETTimeOfYourLight***

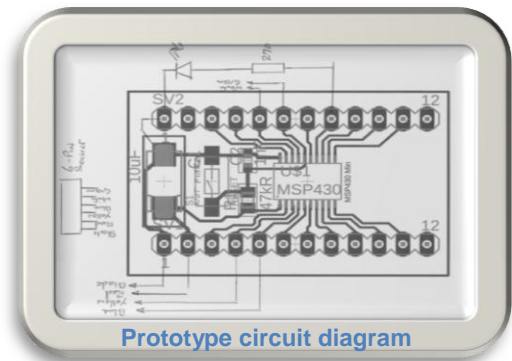
## How will your support be recognised?

There is usually local radio, newspaper and television coverage of Peak Camps, so this camp is expected to attract the same sort of interest. All supporters will be invited to come along to the camp and will get the opportunity to speak to some of the young people and have a look around the site.



Peak 2015 can also offer social media recognition for companies through both Facebook ([facebook.com/peakcamp](https://www.facebook.com/peakcamp)) and Twitter ([@thepeakcamp](https://twitter.com/thepeakcamp)), with over 2500 combined followers, a number which we expect to keep on rising right up until the camp. All sponsors will be able to communicate to followers through the Peak 2015 Social Media.

In addition to this, your banner with name/logo etc. can be on show at the activity that has been sponsored. There will be plenty of photo opportunities at the camp, so you can be sure of some great PR material.



## How can you find out more?

Please feel free to get in touch with us to express your interest in supporting us or simply to find out more about how you can help:

### Institution of Engineering and Technology (IET)

**Stephen Powley**  
IET Schools Liaison Officer, Derbyshire

Tel: 07736 448 738  
E-mail: [spowley@theiet.org](mailto:spowley@theiet.org)

<http://faraday.theiet.org>

### The Scout Association

**Helen Gregory**  
Peak 2015 Activities & Events Assistant Manager

Tel: 07711 110 456  
E-mail: [helen.gregory@peakcamp.org.uk](mailto:helen.gregory@peakcamp.org.uk)

[www.peakcamp.org.uk](http://www.peakcamp.org.uk)

#### Image credits

"Chatsworth Bridge" by Rob Bendall. Licensed under Attribution via Wikimedia Commons - [http://commons.wikimedia.org/wiki/File:Chatsworth\\_Bridge.jpg#/media/File:Chatsworth\\_Bridge.jpg](http://commons.wikimedia.org/wiki/File:Chatsworth_Bridge.jpg#/media/File:Chatsworth_Bridge.jpg)

"Tents", "Scouts" logo, "Peak 2015" logo – The Scout Association

"Girlguiding" logo - The Guide Association

"Microcontrollers", "Flashing badge with ID lanyard", "Prototype circuit diagram", "Prototype circuit board evolution" – Paul Bennett, HIDECS Consultancy; Juergen Pintaske, ExMark

"Boy soldering" – Ian Cole <http://www.raisinggeeks.com/>



## Concept project delivery, electronic design & fundraising



**HIDECS**  
Circuit design and testing, coding, volunteering, publicity and fundraising from the high integrity systems specialists



**ExMark**  
Circuit design and testing, coding, volunteering, project marketing and fundraising support from the international technical marketing experts



**Omflow**  
Concept design, project management, and volunteer recruitment from the requirements experts

*Huge thanks to all our commercial supporters and the many dedicated individual volunteers who give up their time freely. Without your help, "Time of Your Light" would never be possible.*

## Donors and supporters



**Texas Instruments**  
Generous donation of 1000 MSP430 microprocessors (the brains on the badge!) from the global semiconductor leaders



**EuroTech**  
Generous donation of 1000 printed circuit boards from one of Europe's leading manufacturers



**Chinese Manufacturing Solutions**  
Financial contribution from the experts in quality Chinese manufacturing



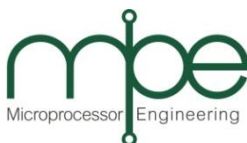
**Rolls-Royce**  
Loan of soldering equipment and volunteers from this world-beating engineering company



**MSC Technologies**  
Donation of 1500 LEDs from this leader in electronics and lighting



**Westwood Rock**  
Financial contribution from "the creative engineering company"

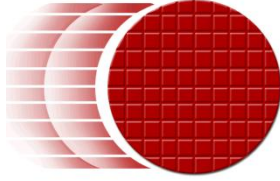


**Microprocessor Engineering**  
Microprocessor software from the company that helped land Philae on a comet!



**University of Derby**  
Loan of soldering equipment and volunteers from Derbyshire's award-winning university

## Donors and supporters



**FTDI Chip**  
Donation of USB to  
TTL cables



**Gateway Electronic  
Components**

Donation of 1000  
LEDs to light up  
Peak from the  
component  
distribution experts



**NLT Training  
(Chesterfield)**  
Soldering training for  
volunteers from one  
of the region's  
leading training  
providers



**Esprit Electronics**

Donation of  
components from a  
leading UK provider  
of electronic  
manufacturing  
services



**Coilcraft**  
Donation of  
magnifying glasses  
from this world leader  
in inductor coils

*The Institution of Engineering and Technology (IET) is working to engineer a better world. We inspire, inform and influence the global engineering community, supporting technology innovation to meet the needs of society. The Institution of Engineering and Technology is registered as a Charity in England and Wales (No. 211014) and Scotland (No. SCO38698).*