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# Newsletter February 2019

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From the  
Maker-In-  
Chief



Hello Makers and welcome to February's newsletter!

Plans for the [Guild of Makers Conference](#), which is taking place on 22nd March 2019 in Birmingham, are well under way. Tickets are limited and have now been opened to everyone, so if you haven't already purchased yours then do it soon.

At the conference there is an opportunity to talk about your makes during Lighting Talks / Show and Tell. There is also a swap shop table so do bring along anything you no longer need but think another maker may benefit from. However, please be prepared to take it home again if no one wants it!



During the conference we'll be distributing the above badges to our Founder members (you're a Founder member if your membership number ends with an F). The badges are numbered on the back with your individual membership number.

But don't despair Non-Founders, there are different pin badges that have been made especially for you. These will be available to purchase at the conference and (probably) online in April. More details soon.

Memberships are due for renewal on 5th April 2019. However, if you [renew now](#), it will be valid until 5th April 2020.

Happy making!

Lucy

**Dr Lucy Rogers**

**Founder, Guild of Makers**

[@DrLucyRogers](#)

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# Ten questions with a maker

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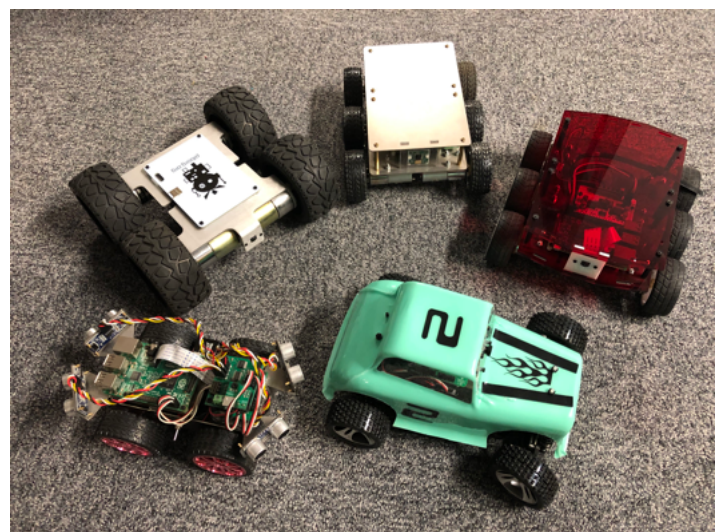
**Name:** Timothy Freeburn

**Company:** Freeburn Robotics Ltd

**Website:** [www.frobotics.com](http://www.frobotics.com)

**Twitter:** [@bohblesku](#)

**Location:** Earith, Cambridgeshire



## 1. What do you make?

The main things I make are robots and add-on boards for the Raspberry Pi. Normally that

means four wheeled rovers and autonomous robots for education and fun, but we also sometimes make bigger things for industry. Lately, I've been getting into making props and costumes for Cosplay events.

## **2. What does your making space look like?**

I have an office space with computers and electronics workbenches that are mainly filled with Raspberry Pis. In the "workshop" I have a few benches equipped with vices and a load of random tools, which are probably less organised than they should be. I've a few small and big machines such as a laser cutter, band saw, drill press, metal capable chopsaw, a Colchester lathe, and, finally, my pride and joy - the CNC Mill - which I've named "Commander Swarf". It's from the 1970's but it's super powerful and brings a smile to my face every time I fire it up!

## **3. Where do you sell your makes?**

On our website, [www.piborg.org](http://www.piborg.org) and to distributors all over the world

## **4. Who inspires you?**

Too many people to mention. Most recently [@vogueandcode](#) has given me the inspiration to buy a sewing machine and have a go at making some clothing as I'm very interested in the similarities between coding and pattern making. I've even had my first course and have registered for my second.

## **5. What's your best failure?**

The original PiBorg motor controller. It was a 10 amp capable multiple motor controller, which took 18 months to design and build. It was capable of controlling BLDC motors, encoder feedback, daisy chaining over CAN, voltage and current monitoring... the list goes on. Unfortunately, it was horrifically expensive to produce and we only made five units. Still, we learned a lot from making it.

## **6. What's your favourite magazine / podcast / youtube channel / other making related "thing"?**

By far my favourite YouTube channel is a very amusing resource for machining called [This Old Tony](#).

## **7. Do you outsource / employ someone to do some of the non-making things in your business? If so, which aspects?**

I have some external companies doing mainly administrative tasks, and we've recently formed a partnership with ModMyPi, which will source and ship the robot kits. I also have three people who work with me: Arron mainly writes code, Finley who is an undergraduate works with robotics and Paula solders and puts together robot kits. My fiancée Claire officially works a day a week for me, but it usually leaks into evenings and



weekends as most things do when running a business!

## 8. What's been the hardest thing about making for a living for you?

In the early days, the constant need to figure out where the next rent cheque was coming from made us do lots of contracting we didn't really like doing. As time went by and the urgency of this requirement reduced, the less fun contracts died off and now we love doing what we do!

## 9. What's the best thing about making for a living?

Experimenting! I love getting an idea and just running away with it that day. Occasionally, I don't even need to think things through too much before I get started. That's something I probably couldn't do if I wasn't my own boss.

## 10. Whose work would you recommend that fellow Guild members should check out?

- The Antikythera mechanism - [Clickspring](#) on YouTube
- [PiWars Robot](#) competition from Mike Horne and Tim Richardson.
- [Electromaker.io](#) and Hackaday
- [Tabitha Lyons](#) and her father have been making some really cool cosplay stilts

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# Forums

Due to trouble with spammers on the forum and on the contact page of our website, they are both currently closed. However, we have opened a LinkedIn page for the Guild and we do still have the Slack channel. If you want to be added to either the Slack or the [LinkedIn group](#), please send me an [email](#).

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# Opportunities for members

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An opportunity to be in the audience for 'The DesignSpark Podcast' - a sci-tech-comedy podcast that is taking a fresh look at the past, present and future of some of the hottest topics in tech. It is hosted by Guild of Makers Founder Dr Lucy Rogers with comedians Bec Hill and Harriet Braine. Tickets are £6 and available [here](#) Money from ticket sales will go to the charity [Remap](#)

## **Take part in MakeFest 2019**

Taking place on Saturday 25 and Sunday 26 May 2019, MakeFest is a family festival of making, engineering and technology. Each year, the event takes over the galleries of the Science and Industry Museum, Manchester, for a whole weekend with hands-on activities that encourage visitors to have a go at making for themselves. To be part of MakeFest 2019 apply [here](#).

## **Do you have an idea for a podcast?**

If you have a burning idea for a new podcast, the Rachael Bland New Podcast Award means your idea could be piloted and showcased on [@BBCSounds](#). Enter [here](#).

## **Mechatronics engineer needed**

An opportunity has arisen for a mechatronics engineer to join a small team (Elena Corchero, Sebastian Conran and Samantha Shaw) to create a smart dog lock. Although still in the early stages, the team have a pretty good idea of what all the components should be and need someone knowledgeable or interested in building circuit boards and wearables in general, to come in, create the rough working prototype and drive its improvement into the future stages.

Requirements other than being an amazing human being:

- electronics engineer or possesses similar technical skills
- able to create a working prototype
- enthusiastic and independent
- able to take initiative and full responsibility for development
- ideally interested in wearable security and being part of a brand long term

To apply email [Samshawco@icloud.com](mailto:Samshawco@icloud.com)

## **adafruit's jobs board**

adafruit has an extensive FREE [jobs board](#) on its website for designers, makers, programmers, artists and engineers who are looking for great places to work at and projects to work on. And, like most job boards, this job board is for companies and people who need the best talent for their projects and companies.

## Work experience

PIMORONI, creators of exciting accessories for the Raspberry Pi computer and a retailer of other great maker products from around the world, has announced that applications for its [Summer 2019 work experience](#) are now open. If you know of a student in Sheffield or the surrounding areas who want to learn how to develop and manufacture maker treasures than send them PIMORONI's way.

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