# *Iceni Newsletter November 2023*

**Coronavirus Impact Covid-19.** We are continuing to hold our meetings online as this seems to suit everyone and saves travelling during the dark Winter months.

I hope you are all keeping safe and well and will be able to join us online.

If you wish to join us just follow the link or paste into your browser:- https://meet.jit.si/IceniComputerClubMeeting and follow instructions to allow camera and microphone access. We have found some problems with screen sharing on the Mac if using Firefox, but using Safari or Chrome is ok as is using Windows.

There is nothing to download or install. We still meet on the third Wednesday of the month at 7:30 p.m. via Jitsi.org Video conferencing.

## Our Next Meeting Wednesday 15th November 2023

## Our Annual Photo and Video Evening - All

This is our traditional evening for you to show your shots or videos taken during the year. A fairly relaxing evening.

## Our Last Meeting Wednesday 18th October 2023

## 3D printing review

Gareth cover most of the points during the evening although he and Peter admitted to not having done much printing recently. He did actually have his printer running during the evening producing an iguana for Aidan.

Both Gareth and Peter had the Creality 3 v2 printer.

Gareth began by saying that he had not upgraded his printer although he had had to make some repairs. He sometimes had had to clear his extruder head and reassemble it and his extruder tube also melted and had to be replaced.

Gareth had printed some special tubes to fit on the extract of a pair of cooling fans in his internet server unit used when he went camping in order to reduce the noise level.Most of the noise comes from the bearings. It worked very well.

He had made a lot of extra railway components for Aidan's wooden railway set. All of these items were already designed and can be found on Thingiverse (www.thingiverse.com); a very useful repository which holds ".stl" files which are the basic designs. To use them you then need to use another program like UltimakerCura ( www.ultimaker.com) to convert the files in order to produce a sliced file suitable for your particular model of printer. The sliced file is in a format called "gcode" ( sometimes written as G-code) and is a plain text file giving x,y,z and speed parameters for each position of the head.

The UltimakerCura program allows the model to be tilted in 3 dimensions to examine it. A model is rarely designed to be solid, but the inside may be filled with a honeycomb like structure , the infill, of various different designs in order to reduce the amount of material used but make the model strong enough to be fit for purpose. Also the time taken to produce a model is dependent on the infill type used. The view shows the contact area between model and baseplate in red to indicate whether extra support might be needed. Gareth went through all the ways to alter the construction of the model. Many other properties can be tailored in a model. When all the settings are complete the design is saved as the gcode file and copied to a USB stick which is then plugged into the printer. When you want to print you select the file from the USB stick.

In printing Gareth finds that the base plate is not perfectly flat but he manages to tweak the height adjustments on the fly to cope with this.

He does not use glue on the baseplate although sometimes has adhesion problems.

Peter said that he had modified his printer in several ways. Originally he found it very tricky to get the base plate level. There are four adjustment wheels, one under each of the four corners. Peter found the best way to adjust this should not to be by going round each corner clockwise (say). He thought it better to adjust the levels in pairs along the diagonals i.e. top right - bottom left and top left - bottom right.

He had a problem early on with the extruder drive. There is a spring loaded wheel pressing onto the filament in order to feed it. The wheel has a set screw which had come loose allowing the wheel to slide too low to grip correctly. After finding and fixing it correctly Peter found that the plastic level used to apply the spring pressure had broken and this prompted him to buy a replacement metal version which is much better and is very easy to fit. (Amazon £16)

His second modification was to fit the automatic height sensor CR Touch Auto levelling kit (also known as BL Touch) which enables very precise measurement of the base plate position with 16 measurement positions by using a small probe. The end stop sensor is removed when this is installed. Using this greatly simplifies the set up.

The set up can be used by modifying the UltimakerCura program to perform a height setting run before printing. It works very well.

The Creality firmware is open source and there are developers who wish to implement improvements to Creality's offering. One particular group have produced what is known as the Jyers upgrade which Peter had installed. See https://all3dp.com to get instructions for downloading from the Jyers page on github. There are YouTube videos available showing how to install the upgrade too. The principle changes are that long filenames are enabled for models, the display is in colour and several other features including better support for the height probe.

A word of warning : The most common material which people begin with is PLA (Poly Lactic acid) which is fairly harmless. However if you start printing with ABS or some other plastics there are toxic fumes generated and good ventilation or extraction is required.

Peter had been having a look at building his own designs using FreeCAD but has not been able to spare much time to learn it so far.

**RPI 5**

Following the 3D printing part of the evening Paul offered to say something about the latest Raspberry Pi. RPI5 which is just about to be released – he is one of the first in the queue to buy one! It is considered 2 to 3 times faster than the RPI4 largely because it has a specially designed I/O chip. There are two versions 4GB £60 and 8GB £80.

The pre-release version could be used as a desktop machine and it uses Hardware acceleration for Firefox. Included software is VLC, Firefox and Chrome. The new operating system is called BullsEye and it is a 64 bit and moves away from X to Wayland as display manager. There is not likely to ever be a RISCOS version because a 64 RISCOS would be much more difficult than moving from 26 bit to 32 bit and using Aemulor.

For more information Gareth says look at:

https://www.jeffgeerling.com/blog/2023/testing-pcie-on-raspberry-pi-5

Gareth also mentioned that there was a problem with Ubuntu installer which required them to take down the installer and check all the Ukrainian translations and get them checked by Ukrainian speakers as they had reports of problems.

Gareth is still looking forward to better support for Asahi Ubuntu. Ubuntu 23.10.1 is not an LTS release. He had upgraded easily form MacOS booted from a USB stick and it all worked.

**SQL backups**

Paul says look at :
https://dev.mysql.com/doc/refman/8.0/en/backup-and-recovery.html

# ICENI Future programme

| ICENI Future Programme 2023/2024 | Title | Presenter |
|---|---|---|
| **2023** | | |
| 15 November | Photo and Video Evening | All |
| 20 December | Party and Gadgets Evening | All |
| **2024** | | |
| 17 January | Social Evening Venue TBA | |
| 21 February | Open for Steve and Sue | |
| 20 March | Mac Evening IOS updates | |
| 17 April | Raspberry Pi and Arduino etc. | All |
| 15 May | AGM + Extras TBA | All |
| 19 June | Open | |

This programme is open to changes as the year unfolds.

MEETINGS WILL NOW BE HELD ONLINE BUT STILL ON THE THIRD WEDNESDAY UNTIL FURTHER NOTICE UNLESS OTHERWISE STATED..

# Our Website and Email and Jitsi meetings

Our website URL is

http://icenicomputerclub.org.uk

Email to: iceni@woolridge.org.uk

The website is where you will find copies of the Newsletter from Previous years and also where you will find our Committee Members and future programme.

I am open to suggestions on what people would like to have included in the website.

## JITSI Meetings

I am repeating this here from the top of the document.

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End