GATEWAY

The Official Magazine of the Gippsland Gate Radio & Electronics Club Inc A0016893M

September 2026

Fluke Thermal Imager TiS40

Blue Light (No, not the Police)

Recycle It - maybe

And More

WIA Affiliated Club

Cover photo, Last month's meeting – 21/08/2026.
(If you have any good photos, please send them in)

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Event Queue

September:

18th	8:00	General Meeting

October:

2nd	7:30	Prac night
16th	8:00	General Meeting
24th – 25th		CQ World Wide DX SSB

November:

6th	7:30	Prac night
7th – 9th		ARRL Sweepstakes (CW)
14th –15th		Worked All Europe (WAE) RTTY
20th	8:00	General Meeting
28th – 29th		CQ World Wide DX CW

Club run events are only possible with the involvement of ALL members.
Without volunteers to coordinate and participate in club events the club will fail to prosper

President's Report - September 2026

Another month has passed, and the challenge for your Committee remains the same: how do we get more of you involved? I have been rambling on about this subject for a while now, but I genuinely believe that a lively club is one where members engage with each other. After all, that is why we belong to a club.

The alternative is to hide at home like a hermit, listen to the ether and never touch the microphone or CW key! 😊

So, get on the air and make yourself heard. Call in on our three repeaters. The 6-metre repeater, VK3RDD, seems to be the loneliest of the three, and VK3RWD, if you can reach it, could certainly use some more activity as well.

Our club nets are a great opportunity to introduce yourself if you haven't done so already. Don't be shy!

- Coffee Morning: 10:00 am daily on VK3RGW
- Wednesday After-Work Net: 7:30 pm on VK3RGW
- DMR Net every day at 16:30h on TG VK3BJA

You don't need to have something important to say. Just call in, say hello and let everyone know you are there.

Meet someone new

I would also encourage all members to attend our meetings and make an effort to talk to someone you don't already know. As I said in my last President's message: reach out to the new and unknown member. Introduce yourself. Jump out of your comfort zone and make a new friend.-

You may be surprised how much you have in common.

Our 50th Anniversary

A very good opportunity to meet new people and make yourself known within the club is through the preparations for our 50th Anniversary celebrations in 2027.

We already have some members who have put their hands up to contribute, but we need more.-

I particularly encourage our newer members to get involved. This is a great way to become part of the club and to get to know people. You may be surprised by how many new friends you will have made by the end of next year.

We are thinking about doing something big, inclusive and engaging for everyone.

So, please don't sit back and wait for someone else to organise it.

Put your hand up and volunteer for the 50th Anniversary project.

We want to hear from you

You have a unique skill. You have a profession that might be interesting to our members. You are working on a great project that has some connection with radio or electronics. Perhaps you have built or repaired some of your equipment.

Or maybe you have a friend or family member who does something that would be fascinating for our members to learn about.

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Why not give a short presentation as part of one of our member talks?

And don't be afraid — we don't expect a professional presentation. You don't need to be an experienced public speaker. If you have something interesting to share, we can help you put it together.

Sometimes the most interesting talks are simply about something a member has built, repaired, discovered or experienced.

Stay connected on Discord

Don't forget that we also have our Club Discord Server — check our website for access details.

Discord is another easy way to stay connected with other members. You can ask questions, share your latest contact, show everyone what you are working on, or simply have a chat.

It is also an easy way to approach the Committee, ask questions or suggest ideas for future activities.

At the moment, we probably have around 30% of our members on the server, along with a number of guests. It would be great to see more of you joining us there.

Working Bee at the club rooms

Don’t forget this weekend on **Saturday September 19 2026 from 1400h**, we will be having a working bee at our club rooms. They need a good clean-up, inside and outside.

Finally...

The Committee can organise activities, meetings, nets and events, but we cannot make a club active on our own.

The club is all of us.

So, get on the radio, come along to a meeting, introduce yourself to someone new, join a net, share something you know, volunteer for an activity — or simply have a coffee with us.

Don't be the unknown member. Become part of the club.

73,

Klaus Illhardt VK3IU
President
Gippsland Gate Radio & Electronics Club

Status update on current and upcoming projects of events

Coming GM

The next on September 18th 20:00H will be a social meeting.

If you like to address any matter of concern, you may raise them at this opportunity or send us an email to committee@ggrec.org.au any time.

Our member Chris VK3QB who now recovered from his flue, has again offered to hold a talk about his recent DX expedition to Lord Howe Island as VJ2L. Chris is passionate about activating some semi rare DXCC locations around Australia and has been on many expeditions. Look forward to his presentation and an engaging talk.

Remote HF Station

We are now working on documenting the remote station, how to use it and also defining rules for the use of the station. Shortly we will be asking for expressions of interest of members to access the remote station. There will be a mandatory induction and you will need to show that you understand how the remote station operates and the club guidelines for the use of the station.

50 Years of GGREC 2027

Next year our club will reach a major milestone in its existence. We are planning some special activities for this. To make it a success we are setting up a 50th anniversary Committee and asking the involvement of members.

These thinks cant be done by the committee alone. Send your expression of interest to the committee@ggrec.org.au

I would encourage you to be part of this and make next year a memorable year for all of us.

WIA Grant application for our Remote Station

On behalf of our Club, I lodged a grant application on April 20, 2026, for our remote station project with the WIA. After some follow up we finally received a reply to our application and I am happy to inform you that our Grant application has been granted with a grant of 500$ awarded for our effort to setup a remote station. I still need to submit a form for the fund release which will be done this week.

73 de Klaus VK3IU

President GGREC

PRESIDENT'S REPORT – SEPTEMBER 2026

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CLUB NETS – JOIN IN!

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PUT YOUR HAND UP AND VOLUNTEER FOR THE 50TH ANNIVERSARY PROJECT! ⭐

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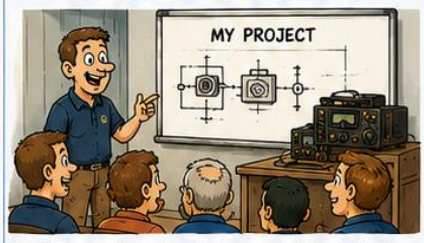

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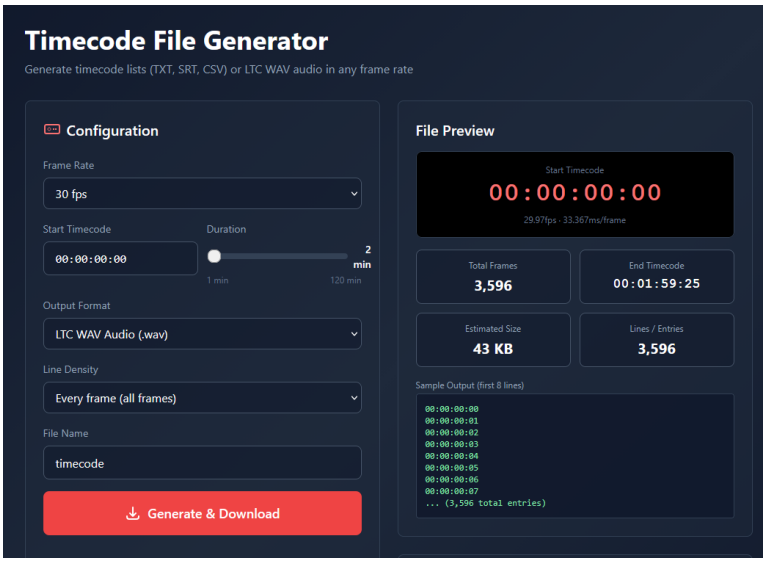
Klaus Illhardt VK3IU

President
Gippsland Gate
Radio & Electronics Club

73 de Klaus VK3IU
President GGREC

From The Editor



"The other day" oh here we go again!

Well the other day I was trying to catch an anomaly in some code, trouble was the time involved could easily extend into multiple days. So the concept of me sitting there waiting for the anomaly is just not going to happen.

Well that just leaves the concept of recording it then reviewing it afterwards trying to zoom in on the exact time it happened and the hopefully get an insight into the issue.

I could either capture data from it, record a video, or maybe just sound. The last one seemed easier in that a PC can record ridiculous amounts of audio onto a hard drive. I just spun up Audacity (a free and open-source audio editor) which informed me I could record 1,086 hours of non-compressed CD quality audio on my fairly full hard drive, about 45 days' worth, without me taking any effort to free up drive space. I used to have an open-reel tape recorder for doing long recordings, that was until I saw what a computer could do, with far better quality – so I sold the tape recorder (Thanks Mike). This just left the problem of somehow adding a time stamp to that recording. Normally my setup does stereo. (you can get pro-audio multi-channel solutions) I only needed one for the capture, so how about something to generate an audio time track for the other channel?. So onto the internet with Google, but what do I search for? A bit ago I watched a channel from the US, "Connections Museum", where they get old telephone exchanges and related tech up and running, they mentioned an episode about an audichron, or talking clock. https://www.youtube.com/@ConnectionsMuseum Hopefully that edition will go up in the not too distant future.

So I looked for a DIY Audichron, yes, but way to involved for me now (As a future project yes, just too much for now), then I membered the various radio stations like VNG that I recall mentioning back some time, well it turns out a NZ Amateur, Murray Greenman ZL1BPU made a project called "VNG in a Box" https://www.qsl.net/z/zl1bpu//MICRO/VNGBOX/ nice, I would not mind one of those, all done inside one Atmel? processor chip, nice, except most of the links on that page are broken, the project is now 10 odd years old – probably dead, I'll have to try and contact him…. (another day).

Then I thought of the professional Film and sound crowd, they love adding time code to movies etc., so maybe they have something to offer. I found an online time-code generator, trouble is it's not real-time, just from an arbitrary start point for a set time, not quite what I want (Does every app have to be online? - yuk), anyway I got it to generate a sample that I then had a look at. All but digital data, nothing for the human ear. If you've ever winged about hearing packet radio on 2M, well just have a listen to this – way worse! So I'll also need a decoder – trouble was the ones I found were plug-ins for some digital workstation that I don't have, oh well.

SO too hard? I must be barking up the wrong tree – again. Maybe time for another Arduino project, trouble is most micro's can't handle two tasks in real time, it's all time sharing.

Paul VK3TGX

Recycle It - maybe

On a recent hard rubbish day I came across an exercise machine, not exactly the one shown here, Not for lack of trying though, I had a pile of part numbers etc., none resulted in a image unfortunately. However when I did a search for Pro-Form exercise my browser was quite literally swamped with a sea of different models.

In the past I've found these machines a good source of parts to recycle; I usually just take the control head, usually only a few screws to liberate it rather than trying to drag the whole thing home. I didn't have a trailer, now I don't even have a towbar after my previous ride was written off.

The controller this time was a bit of a disappointment, a custom LCD, two small speakers and not much else.

So how else can I have some fun now that the parts pickings are basically zero?

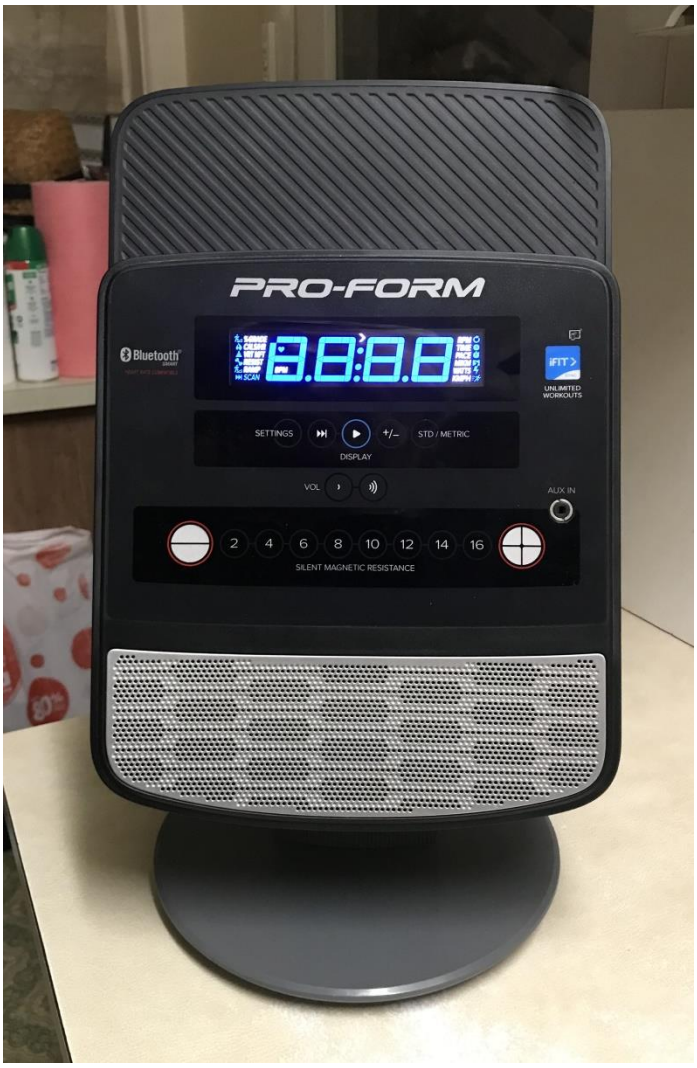
It was powered up, display just to dim

How about mounting it onto my mower? (no this isn't a photo shop job) This will solve the main problem with these exercise machines, you break a sweat but get nothing done. On the mower you get to go outside, breath in some fresh air (my mower is electric) work off the excess calories and kilograms, but also end up with a real job done.

One less reason for the wife to have a go at me.

And if my extremely dodgy mount – a slot cover from the back of a computer lets me down, most likely if I actually try and move it, well then the mower will probably just run over it and auto dispatch it.

Better not put my phone in the holder on the top then…. (plus it was 'raining')



Or how about I totally flip the intended functionality? Here it's mounted on an old LCD computer screen stand – with several screws! It can be set up next to your favourite recliner chair and act as a **slack-o-meter**.

The other thought I had was kind of after those control panels you see in the 007 Bond movies, where the bad guy is pushing some buttons on a snazzy control panel.

I'd like one of those; trouble is I have no room for such, so how about adding a pile of buttons and switches to this kind of useless exercise console.

On the inside it has a set of speakers and a Bluetooth module, the upper part of the front is a resting place for a tablet or mobile phone, with the standard Bluetooth logo to the left of the display, so you'd assume it does wireless audio, well not that I can find, I open my phone looking for a Bluetooth device and find nothing. It looks like you need their proprietary app to control it. Actually it gets worse, on the other side is an iFit logo and text saying "Unlimited workouts" and another emblem above that looks like it's coaxing you to pair it with your phone. This looks like some subscription type thing, that if you don't cough up some regular money you will only get to have limited workouts, as in just as the sweat starts it shuts down. Enshitification here we go again.

So is this why it was on the nature strip? Owners got sick of paying for what they already own?

Hardware wise, the actual functionality needed for these exercise machines is extremely small, with how fast you're going and for how long, but not much else. Yet the complexity of the

internal electronics is just way over the top for this. Just look at the display for instance, no boring 7 segments, no they've used 14 segments for all but the same, a custom LCD and all the extra circuitry to run it.

I saw a later model on sale, $600 off, pay only $99

Obviously they are having trouble moving them, and with the suspected subscription thing, no wonder. (for the exercise movies later ones display?)

Darn gun laws, can't even use it for target practice.

Paul VK3TGX

Fluke Thermal Imager TiS40

Recently the club & I were gifted a Fluke thermal camera, extremely handy when chasing faults for it allows you to easily spot anything that is a little hotter than other devices.

Unfortunately the one I ended up with had suffered a bit of damage to the USB port, and that seems to have somehow also upset the memory card slot. I suspect they have lifted a track or two that also feeds other sections of the circuit board. (or maybe not – an ongoing saga)

So what does one do in this situation? - **Take it apart**.

With the back off, just four screws, I was so close to the problem area, yet so far.

The USB and Micro SD sockets are on the other side of that circuit board, it appears to be held in place by four screws, however not so fast, removing them does not release the board, maybe I have to pull a little harder, however there is some metal structure under there, and I kind of fear that the image sensors are on the back of this board, also bonded to the metalwork, and probably won't take to kindly to me brute forcing it. Some form of one way construction, some form of thermal layer bonding the sensor to the metalwork that was never intended to come apart? Where is the service manual Mr Fluke?

So I flipped it over and started disassembling it from the other side. I got a little further than the above picture shows, but not much. I basically ran out of screws to remove.

The reason for my caution was I disassembled a Nikon digital camera I has that has suffered some form of fault in its optics (it's not a DSLR). Unfortunately it didn't go well as parts were glued together and when one part gave it responded by destroying a flat-flex cable – ouch. In this case there was not much to lose, the camera was broken so breaking it a bit more didn't really matter. Inside a lens had become unstuck (as in glue failure) from its assemble and was now sliding around willy-nilly.

However in the case of the Fluke, the camera part is all ok, I can also save images, trouble is only to internal storage. Well that was until I shoved the card into a reader on my PC that then revealed some anomalies, I had previously tried another card reader that didn't want to know about it, so I moved only my Acer Windows 7 netbook, that then read the card. However when I put it back into the camera that was that, It refused to acknowledge it was inserted.

I tried dribbling a bit of isopropanol alcohol down there and work the slot a few times, but no luck – so who know what the previous user has subjected this thing to.

When put into my Windows 10 PC with a different reader – maybe a bit newer, it revealed an odd internal structure, two partitions, the first a 256MB and a second unformatted one with the remains of the 32Gigs the card offered. So I went into disk manager, deleted both partitions and set up just one 32GB Fat 32 partition. Hooray the Fluke is now happy again, I can get images off, so hopefully I can just ignore that broken USB socket that lead me on this repair/wild goose chase. A pity the Fluke cannot format the card for itself, so you know its ok.

-- So now for a quick overview of these camera's --

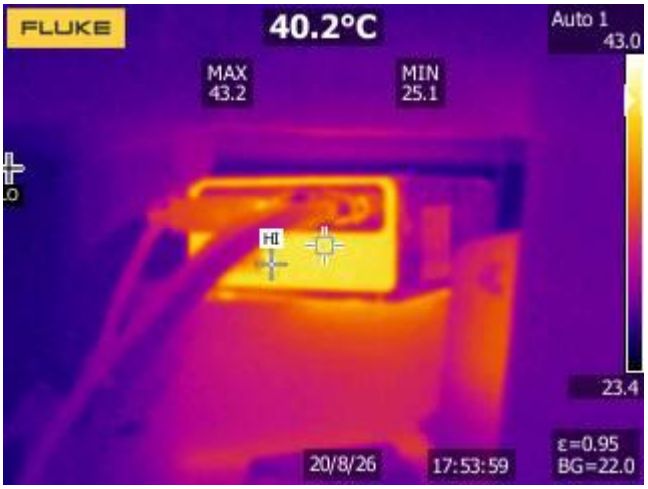
The Fluke TiS40 is a professional measuring instrument, as in it can be calibrated in a lab, and produce traceable reports to whatever it's imaging. However for general home and club use we will probably never have need of this, in fact it's kind of unavailable as the camera has to be sent away every so often to a calibration lab, it needs to be 'in calibration' with a valid certificate, quite an expensive task. – so don't even think about it.

When you are looking at something and pull the trigger, it freezes the image and you can then press 'F1' to save it, however the default is as a report with all the calibration stuff, a file that basically needs the companion Fluke software to read. However if you go into setup by first

pressing ‘F2’ for the menu, and selecting ‘Settings’, ‘File format’, ‘Image format’, then select either ‘JPEG’ or ‘BMP’, rather than the ‘IS2’ reporting format mentioned above.

The other thing is this camera actually has two sensors, the thermal one obviously, but also a regular colour images sensor. This enable the Fluke ‘Image fusion’ function, it can blend the two together, however for me I currently see not much use of this and set it for thermal only, although if you’re in a bit of a bind you can swing it all the way to regular colour pictures and grab a few regular pictures, nothing to write home about, your modern mobile will undoubtedly do a better job.

To change first bring up the menu by pressing ‘F2’, then select ‘Image’, ‘IR-Fusion’, then select ‘IR 100%’, although feel free to try the other options.



This is a picture of my GPSDO 10MHz reference, as you can see it’s running at 40.2 degrees, probably mostly from the crystal oven inside that usually runs at 40.7

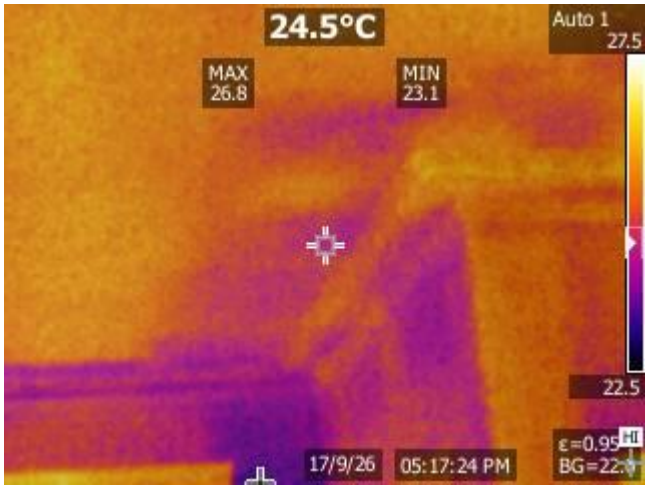
As you can see the image is not what you’d call Hi-Res, at only 320 x 240 pixels, so my card is going to store an incredible number of pics.

For some fun, My wife, Marianna.

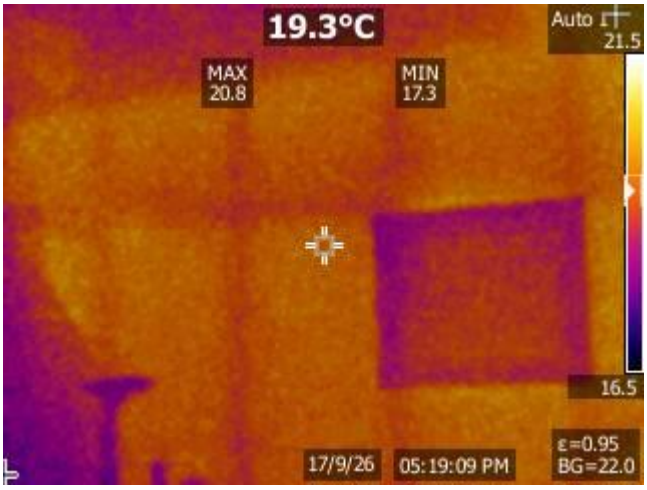
I showed it to her and told her ‘See this proves it, you’re a Hottie’

Well if she read too much lower I’d probably have had to call her an ambulance.

(I did show her this part of the mag, she’s happy)



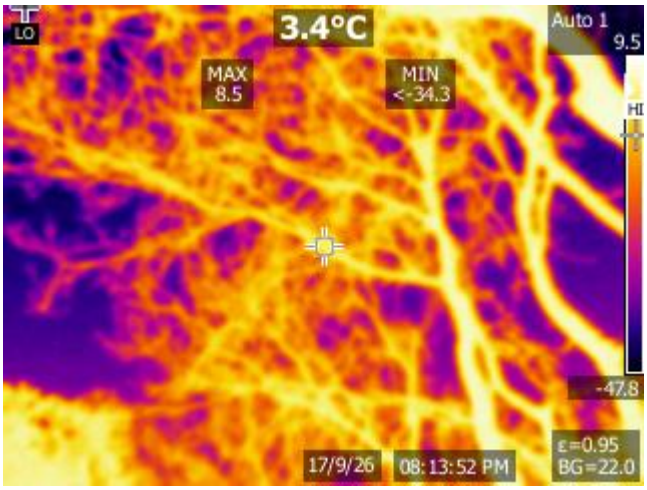
This rather poor image of my ceiling just outside my study shows some dark patches, a sign that I need to check the insulation over there. If it were colder outside this would be more pronounced.



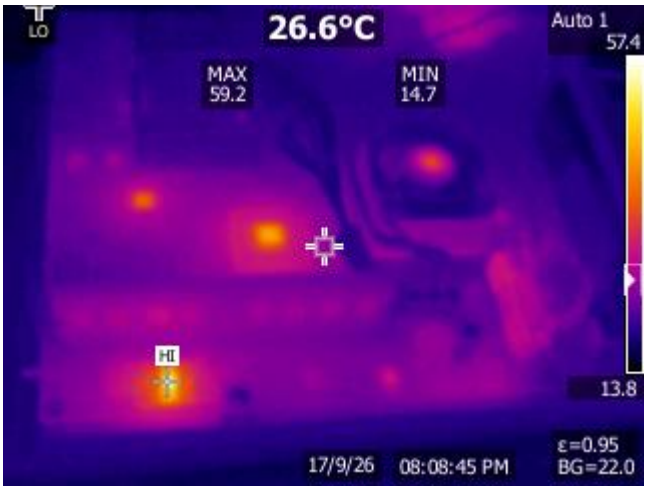
This is a picture taken in a cold closed off room, the wall is adjoining my loungeroom where the heater is on, so there is a bit of leakage through that wall, however the bit that stood out to me was its showing where the wood beams are.

Also it's able to resolve 3 degree differences.

So as you can see there are quite a few uses for these camera's apart from chasing hot parts on a circuit board. I was just talking to Fred VK3FWR on the club's repeater and he mentioned using one to spot wildlife, in particular fox's at night. (and to say info about his new 160M antenna will have to wait for the next magazine)



I did try spotting a possum etc., but it didn't do too well here, actually I was surprised by the heat signature coming off the tree, so the possum was kind of hidden in the thermal clutter.



And finally a circuit board, a quite old HP IBM clone montherboard.

And finally I think I have that SD card problem by its throat, it now looks like 32Gig is just WAY to big, I formatted up as a 1.2Gig partition as strait FAT, no FAT32 rubbish, I took the card out, put it back and it was still happy – let's hope this continues……

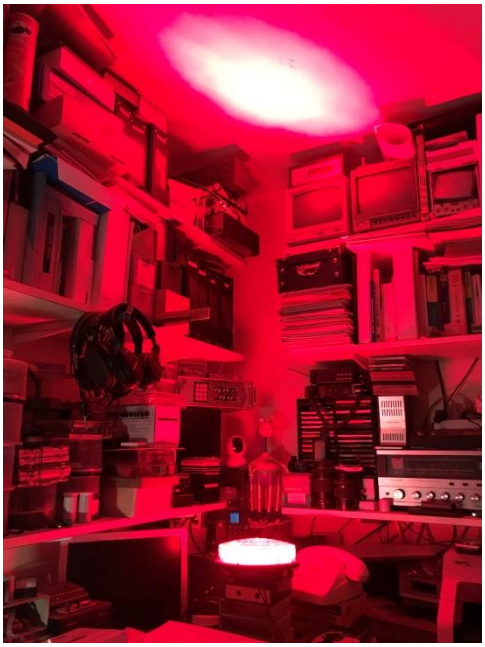
Paul VK3TGX

Blue Light (No, not the Police)

I have noticed in recent years a bit of noise about blue light, and also (maybe) a related one with some seeking 'dark mode' on their computers. This all seemed odd to me, although I'll have to admit I mostly dislike blue LED seven segment displays – although admittedly there are a few shades of blue, 'Aqua' I call them, that are not so bad, for instance the four digit display in that Pro-Form exercise control panel, page 9. (Although I bet it'll be heaps brighter when I rip out the stupid blue filter) This all came up in a YouTube video purportedly from a real doctor who just posted the video on the subject. (with so much is AI slop these days – who knows)

The Light Bulbs You Need to Get Rid of Immediately (New Research)

https://youtu.be/5VRypR6NsoU



So is this real – or just some quackery, he does stuff up the start somewhat I thought, however he had me overdo the red a bit by flooding my study in red light from a railways LED 'traffic light', but what I really need – according to him, is an incandescent lamp run at low power for lots of long wave light, now 240V lamps are not so common, but I have a few 12V car ones – let's try them on 5V……

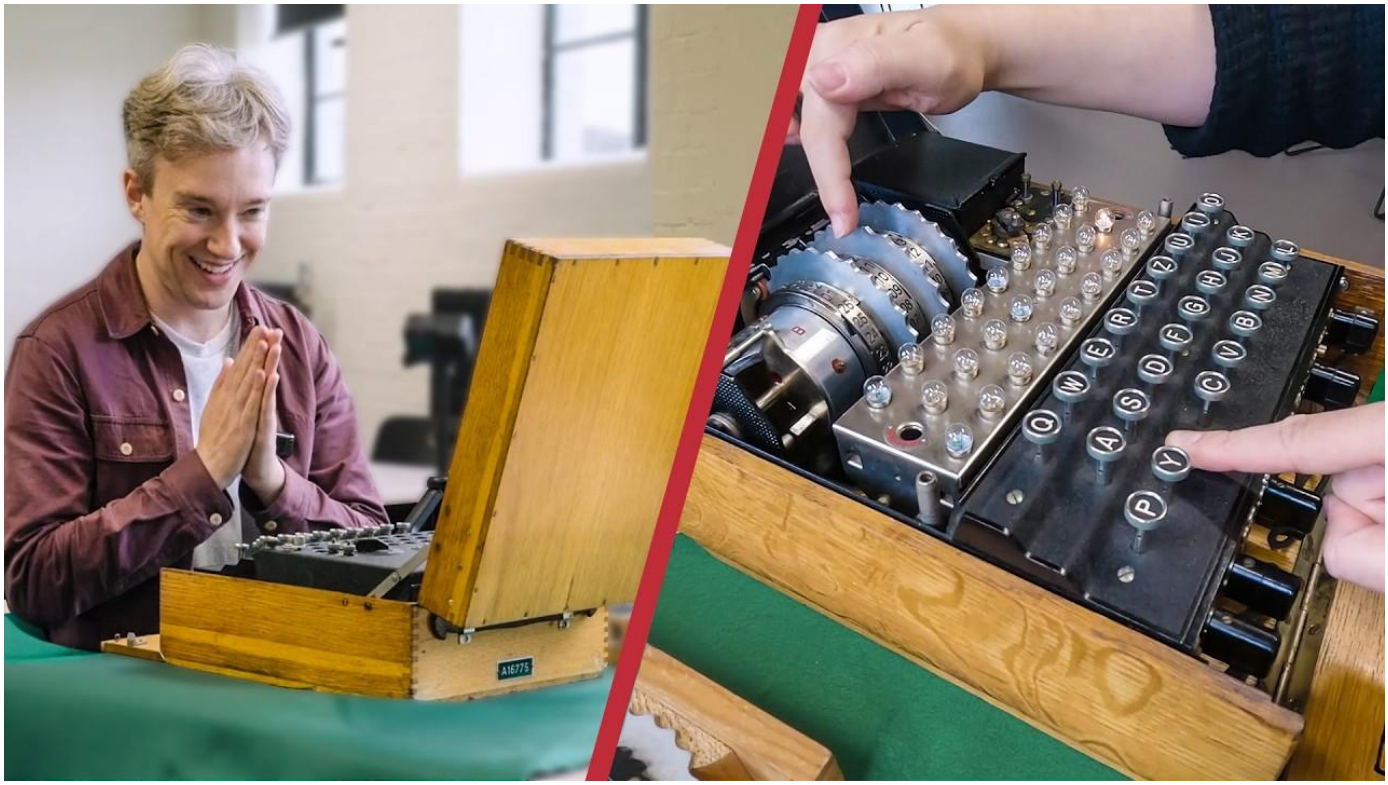
Normally I'd just put this in the 'Interesting video' section, but I thought it really needed a bit of extra text to go along with it, and a comment from me that I don't think we should all throw our LED's out, although I'd be much happier if they didn't base them on blue LED's, instead maybe start at the other end of the light spectrum??

Paul VK3TGX

Prac Night 4/09/2026

Interesting YouTube Videos

THIS...will SAVE HF HAM RADIO.
https://youtu.be/j-y-s6hIcio



How do you keep 8,995 codebreakers secret?
https://youtu.be/tDLbO9KeddY

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For their generous support over the years

Club Information

Meetings 20:00hrs on third Friday of the month at the
Cranbourne Guide hall, Grant Street Cranbourne
Prac/Natter nights first Friday in the Peter Pavey Clubrooms Cranbourne 19:30hrs
Visitors are always welcome.

Office bearers

President	Klaus Illlhart	VK3IU	General 3	Leigh Findlay	VK3BOW
Admin Sec	Bruce Williams	VK3BRW	Web Master	Dennis Hancock	VK3SPI
Treasurer	Phil Pavey	VK3VB	Magazine Editor	Paul Stubbs	VK3TGX
General 1	Fred Reid	VK3FWR	Property Officer	'committee'	--
General 2	Tristan Latham	VK3AUN	Assoc. Secretary	Bruno Tonizzo	VK3BFT

Call in Frequencies, Beacons and Repeaters

The Club Station VK3BJA operates from the Cranbourne Clubrooms.
6m Repeater Cranbourne VK3RDD, In 52.575 Out 53.575 CTCSS none
70cm Repeater Cranbourne VK3RGW, In 431.425MHz Out 438.425MHz CTCSS 91.5Hz
VK3RGW Repeater supports Remote Internet access (IRLP), Node 6794.
70cm Repeater Seaview VK3RWD, In 431.575MHz Out 438.575MHz CTCSS 91.5Hz
Simplex VHF - 145.450MHz FM, Simplex UHF - **TBA**
VK3RLP Beacons 1296.532MHz & 2403.532MHz **(currently offline)**

Membership Fee Schedule

Pensioner member rate $40.00, Extra family member $20.00
Standard member rate $50.00, Junior member rate $25.00
Fees can be paid by EFT to BSB 633000 - Account 146016746
• Always identify your EFT payments
• Membership fees are due by each April Annual General Meeting (AGM)

Magazine Articles to editor@ggrec.org.au Cut off, 10th of the month
All other Club correspondence to: secretary@ggrec.org.au
or via post : GGREC, 408 Old Sale Rd, Drouin West 3818
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