MAY 2019 Volume 8 Issue 5

VE3ERC-LUB

President: Brian VA3DXK
Vice-President: Ted VE3TRQ
Secretary: Tom VE3DXQ
Treasurer: Paul VA3PDC
Trustee: John VE3JXX
QSL Manager: Tom VE3DXQ
Repeater Trustee: Wes VE3ML
Website Admin: Ted VE3TRQ
Lighthouse: Al VA3TET
Maple Syrup Display: Al VA3TET
Newsletter: Bob VE3IXX

ERC REPEATERS

UHF 444.700 TONE: 131.8
UHF 444.700 TONE: 123.0
VHF 147.390 + TONE: 123.0
EMERGENCY SIMPLEX: 147.51
UHF– IRLP node 2404
VHF– IRLP node 2403, ECHOLINK node VE3ERC-R

In an emergency, tune Into our repeaters,
UHF 444.700 or
VHF 147.390 or
HF 3.755 LSB or
Simplex 147.510
For coordination and assignments.

Thanks to Mike VE3MKX for the photo from Dayton.

Now that Dayton is done, join us for the Central Ontario Hamfest on June 2.

THE PREZ SEZ!

This club is Radio-ACTIVE

President's Update for May 2019

The Elmira Radio Club VE3ERC membership is participating in a flurry of spring activities both within our club and other local clubs of which some of our members belong.

We have a contingent of members joining with local Emergency Services and other groups to participate in the Woolwich CAER Emergency Preparedness outdoor Open House in Elmira on May 30th. Amongst other things we will demonstrate digital radio, CW, and have a Morse Code take-away activity sheet available for the myriad of grade 7 & 8 elementary students and their teachers passing by our booth.

The Central Ontario Hamfest is Sunday June 3rd, for which we have three tables reserved and some really decent radios, tuners, accessories, and other goodies available. ARRL Field Day this June 23rd – 24th will be held at the Elmira Firehall for those wishing to attend. Get in touch via the club's daily morning net, Wednesday morning coffee, or by phone and email.

Our Annual General Meeting took place during our May 22nd regular meeting. Amongst other things we once again sanctioned all our club-based activities for the year from now until our next AGM. As an incorporated club and an affiliated member of Radio Amateurs of Canada (RAC) we have the added benefit of RAC's insurance coverage for our club and its members. I encourage our members to join RAC if they are not already so as we all benefit from and should therefore share the cost of the group coverage.

For some time I had been chipping away at updating and revising the Elmira Radio Club's Constitution and By-Laws. Since 2015 many changes have occurred both within and outside of the Elmira Radio Club including the Incorporation of our Club, and our Affiliation with Radio Amateurs of Canada (RAC), and of course the natural progression and development of our Club through the dedication and thoughtful insight of our active membership.

During April's meeting we grinded away at some of the wording, clarifying the language, simplifying some of the clauses and revising, adding, deleting, and reworking others. Notice was given by email to all members that we would be voting on updates and revisions to our Club's Constitution and By-Laws during our Annual General Meeting (AGM).

Our Constitution Article IX Amendments states: *This Constitution or By-Laws may be amended by a two-thirds vote of the total membership. Proposals for amendments shall be submitted in writing at a regular meeting and shall be voted on at the next following regular meeting, provided all members have been notified by mail of the intent to amend the constitution*

and/or By-Laws at said meeting.

Foreseeing that a problem or impasse could arise whereby if two-thirds of the total membership was not present at the AGM, and this has been the case at several of our meeting for various reasons including bad weather, we would not be able to proceed any further and our work for the past months would come to naught. Consequently, I ruled that if at least a quorum of membership is present at the AGM then we will proceed with the AGM and permit voting on the amendments to occur. As your President, my rationale was that all members were duly notified of the proposed changes and attending membership was prepared and expecting to vote on these changes during the AGM. Members whom cared enough about the issue and intended to vote on the amendments would be in attendance, otherwise in their absence we will consider then as abstaining from voting.

We did indeed have a quorum and in fact two-thirds of the membership were in attendance so during the Business section of the AGM we voted on each of the twenty proposed changes. All proposed changes were unanimously voted in favour of and adopted into our newly revised Elmira Radio Club Constitution and By-Laws.

To that end the relevant sections are printed below. These changes come into effect immediately and the fully revised and updated Constitution and By-Laws (2019) will be posted on the Club's website. I personally would like to thank the membership and executive for their participation, insight, and support in bringing into effect these necessary but somewhat tedious revisions. We now have a very clear and functional Constitution and set of By-Laws that address and governs the expectations and needs of our club and should do so well into the future.

On behalf of the Elmira Radio Club VE3ERC, here's hoping you all have an enjoyable month and we're looking forwards to seeing you at our next meeting taking place on Wednesday, June 26th, 2019.

Brian VA3DXK

(Approved Changes)

Constitution

Article II Officers

Section. 1. Executive

The executive shall be responsible for the governing of the club and determining club policies.

The executive shall ensure that the treasurer's books and accounts are examined and that a year-end financial statement is published at the start of each club year.

The executive shall ensure that the club upholds and maintains its status and obligations as a corporation, and its affiliation with Radio Amateurs of Canada (RAC).

President and Trustee shall conduct an annual audit of the accounts before the AGM, and make known the results of the audit at the AGM.

Section 3. Election

Article IV Meetings

The By-Laws shall provide for regular and special meetings. At meetings, a minimum of one-third of the membership shall constitute a quorum for the transaction of business. Incorporation of the club mandates that an Annual General Meeting (AGM) must take place once per calendar year. The date and time of the AGM shall be specified in the By-Laws.

Robert's Rules of Order shall govern proceedings.

Article IX Amendments

This Constitution or By-Laws may be amended by a two-thirds vote majority of club members in good standing and present either in person or by proxy during any regular meeting of the total membership in good standing at any regular meeting. Proposals for amendments shall be submitted in writing at a regular meeting and shall be voted on at the next following regular meeting, provided all members have been notified by email of the intent to amend the Constitution and/or By-Laws at said meeting.

[Note: if 2/3 of membership are not present at **any regular meeting** or at the AGM, either in person or by proxy, and this has happened to us before, we run the risk of an impasse on voting. I suggest the wording of 'by a majority of club members in good standing and present either in person or by proxy during any regular meeting', the majority of members either want the changes or they don't. Those that care will attend or vote by proxy, and a majority or lack thereof will dictate membership's intent.]

Elmira Radio Club VE3ERC
By–Laws

3. Finances

All liquid cash assets and all revenues derived from any source shall be kept in an active bank account.

The executive shall have cheque-signing authority.

The executive can authorize any funds deemed surplus, into interest bearing instruments such as bonds or guaranteed investment.

An audit committee of two members shall be appointed from the general membership in December, and it shall conduct an annual audit of the accounts before the AGM, and make known the results of the audit prior to or at the AGM.

4. Meetings

Regular meetings shall be held on the 4th Wednesday of each calendar month, with the exception of July and August.

The Club shall conduct an Annual General Meeting (AGM) during the regular May meeting that takes place on the 4th Wednesday of the month.

Special meetings may be called… [make this a new paragraph]

6. Elections

Officer Elections shall be held annually at the Annual General Meeting (AGM) held during the regular May meeting of the year.

Nomination Committee

The Nomination Committee will present a 'List of Nominees' to the President at the regular meeting one month prior to elections at which time the President will entertain a final motion for nominations. The President shall then accept this final 'List of Nominees'.

The 'List of Nominees' will be published and made available to all club members by email.

The president will dissolve the nomination committee after the annual elections.

Voting

Voting shall be done during the AGM, using official paper ballots prepared in advance and made available at the AGM.

Voting may occur by proxy if an attending member presents a paper signed by the absent member granting permission to the attending member. A maximum of two votes by proxy per attending member is allowed.

Immediately after voting the ballots shall be counted openly in front of the membership.

Any candidate may request a recount of the ballots.

In the situation whereby no candidate receives a majority for office, balloting must continue, retaining as candidates all who do not voluntarily withdraw.

In the case of an unopposed slate, in which a nominee is the single candidate nominated for a particular office, the nominee is elected by 'acclamation'. This may be the case for one, several, or all executive offices.

<u>Central Ontario Hamfest & Fleamarket</u> ---

Guelph and Kitchener-Waterloo Amateur Radio Clubs
Starts on Sunday, June 2, 2019
Cambridge, Ontario.

Back-of-the-Napkin Eyeball

QSO notes and stuff

by Rich, ve3DCC

MAY 2019

The Elmira Radio Club will again host their Annual Ham Tech Seminar Day on Saturday, Sept. 21, 2019. Last year's installment featured terrific speakers, excellent food, warm camaraderie, and ,even, door prizes. Look for more of the same this year. Put that date in your calendar!

One of our 2018 feature speakers was Dr. Katanya Kuntz of the Quantum Institute in Waterloo. Her speciality is Quantum Encryption. In an earlier article, I described the "laser table" that Al, va3TET, and I had the chance to see in her lab. A laser light beam was split and oscillated to transmit "bits" of information much as Morse Code is sent—a 1 for a dit, and a 0 for a dah. A great deal of the work being done is focussed on Quantum communication with satellites—a field that apparently the West is lagging. It is ,of course, vital to ensure that the data from and the instructions to a satellite are transmitted in a manner that is secure and impervious to tampering. It is to the advantage of adversaries to "crack" the code. Of course, in Ham Radio all transmissions are in plain text and readable. There are insights, though, in the field that may have implications for our hobby. Let me explain….

In her presentation, Dr.Kuntz demonstrated how quantum encryption works. She provided participants with 2 pieces of polarized plastic which, when held one on the other and perpendicular would block light. This experiment can be reproduced using two pairs of polarized sun glasses.--that is, I assume that you do not want to break your glasses to extract the 2 lenses :-) . Since data, including voice and text, can be reduced to binary strings of 1's and 0's, that data can be encrypted in such a way that the original information can be recovered. In an earlier article, I described how a one-time pad consisting of random values can be combined with text data to create gibberish. The recipient of the gibberish can reverse engineer the data by performing a simple XOR (adding the bits in base 2 without a carry). The operation is its' own inverse so repeating the original encrypting returns the gibberish to its' original form. The key is to generate a random one-time pad that can be sent to the recipient for use once and once only. The act of sending the pad creates a flaw in the security of the system. How secure is the communication if the key to decrypting the message is sent publicly? How can the 1's and 0's be modeled with polarized lenses?

The answer is in a book by Simon Singh, "The Code Book: The Science of Secrecy from ancient Egypt to Quantum Cryptograpy" (ISBN:0-385-49532-3 published 1999). Chapter 8, pages 317-350 is a wonderful explanation of the process.

The story of QE dates back to an idea proposed by a graduate student, Stephen Weisner, in the 1960s.

He suggested that using the physics of vibrating photons; that is, the angle that the photon vibrates in (also known as its' polarization), a filter (called the Polaroid) can be used to ensure that only photons of a particular polarization can pass. Although, all spin angles are possible, the filter (think of your sun glasses, eh) can be manufactured to pass either Horizontal or Vertical spins reliably. Other angles may or may not pass thru the respective H or V filters. Weisner suggested that a serial number on currency could be encrypted using light traps on the bill

that could capture and retain a photon. The Heisenberg principle--that is, it is impossible to measure every aspect of a particular object with perfect accuracy, could make dollar bills counterfeit-proof.

His idea was frowned on by his mentors and there it sat until the 1980s.

Charles Bennett and Gilles Brassard, scientist and computer scientist respectively, proposed a novel use of Weisner's model to generate a one-time pad.

Recall Dr. Kuntz's laser table. Imagine that a random set of polarized photons are transmitted by flipping between Horizontal and Vertical polarizations. The recipient, unaware of how the photons are being flipped, randomly flips the receptor between H and V polarizations. If the guess is correct, then the bit is read correctly, but if it is wrong, then the bit may or may not be correct. An eaves dropper, reading the bits, unfortunately distorting the data by reading it, also does not know if the bits being read are correct.

Ah Ha—at this point, the sender tells the recipient, on either a secure or unsecured channel, what orientation was used for each bit. The receiver indicates which bits were read using the correct orientation or polarization ("Yes, Yes, No, No, No, Yes etc.). Both halves of the conversation now know which bits in the one-time pads are the same. The eaves-dropper is no farther ahead. The sender/receiver may go one step more and do a check sum on a finite collection of the bits (ie add them up and check the sums—they better match), and ,promptly, discard those bits.

The one-time pad or rather the subset of the transmitted bits can now be used to encrypt a message at one end, and to decode the message at the other SECURELY (… or is it? Think about that one).

In Amateur Radio, various protocols are used to transmit the "bits" of binary information using transitioning frequencies. Since the protocols are public, even though the letters are not "morse-code" readable, the essentially tone-encrypted messages are considered "plain text". One must wonder if we can eventually use polarized photons to send Ham Radio information with strong error checking and faster speeds.

How long before Quantum Communications techniques become a part of our hobby?

Regards,
de Rich, ve3DCC

Tom, VE3DXQ sent the following e-mail:

"My early Ham days Hi Hi "

CONTRIBUTIONS TO VE3ERC-CLUB NEWSLETTER

Do you have an article you'd like to submit? Or photos? Do you have any comments you'd like to make?

Perhaps you'd like to share a photo of your shack, a special project you are working on or a special interest!

SEND THEM TO:

Bob bobve3ixx@gmail.com

(519-787-2279)

WEDNESDAY NITE NET CONTROLLERS

MAY 15 - PAUL VE3PVB

MAY 22 - M E E T I N G

MAY 29 - BRIAN VA3DXK

JUNE 5 - BOB VE3IXX

JUNE 12 - TED VE3TRQ

JUNE 19 - AL VA3TET

JUNE 26 - M E E T I N G

JULY 3 - REG VE3RVH

JULY 10 - FRANK VA3FJM

JULY 17 - BILL VA3QB

JULY 24 - TOM VE3DXQ

JULY 31 - WES VE3ML

The "Loop" / "Turnaround" for the Waterloo Marathon

Thursday, May 02, 2019 **A report by Frank Monteith VA3FJM**

Our location was: Country Squire outside North Waterloo Hydro Building.

Equipment: Amber vehicle flashing lights, similar to a school bus.
(both Frank and Al (VA3TET)had these lights)
10 – 15 orange traffic cones
high visibility vests, or jackets,
whistle

General Location Information:

St. John's Ambulance changed the title of this location, from "The Turnaround" to "The Loop"

Traffic at this location was light, approximately 2 vehicles every 5 minutes. However, the parking lot at the North Waterloo Hydro was being used for a soccer activity at Rim Park, with school busses used to ferry people back and forth to RIM PARK. The school bus drivers were very courteous, slowed down well before our position, and would automatically stop, and wait for us to wave them through. They were required to turn in our active area, and they always monitored the runners. The busses operated on a 15 minute schedule.

Drivers going into the North Waterloo Hydro parking lot, needed to drive along side the runners. The drivers moved with caution, with respect to the runners. The drivers watched for space to turn comfortably into the Lot. Al and I were concerned about this area, but we concluded that it would not be necessary to station one of us at this location.

Drivers travelling west toward us had a clear, straight, 2 kilometer run. As they approach us, the drivers could not see the runners clearly, and did not expect runners on the road. Our flashing lights alerted the drivers, to slow down. Both Al and myself waved slowly, down low to encourage them to slow down.

The runners crossed the road at the turnaround. We acted as crossing guards, helping to ensure safety.

This location was only used for the Half Marathon. We had approximately 250 – 300 runners. We watched for runners in difficulty. This year there were "none to report". Some runners were tired, but they all smiled, and spoke to us, as they turned.

The first runners arrived about 9:30. From 9:30 – 10:00 the runners were very intermittent. After 10:00 until 11:00 they were almost constant in groups of 5 to 10. Then they gradually reduced until they were single intermittent runners. The last runners were 11:30, escorted by SJA bicycles.

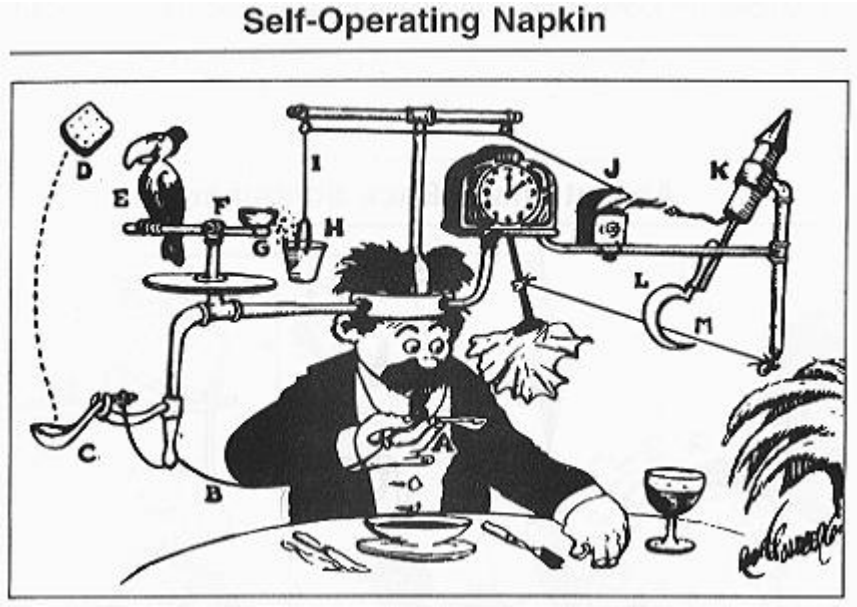
Most runners were aware of the turnaround, excepting two runners who really wanted to go straight, but then corrected their mistake.

It is always good to report, that there were no incidences, accidents, or close calls.

Thanks to Paul VE3PVB for sending this article.

Benchduino: It's Gonna Be BIG, for Builders

11 May 2019 | by Frank K4FMH



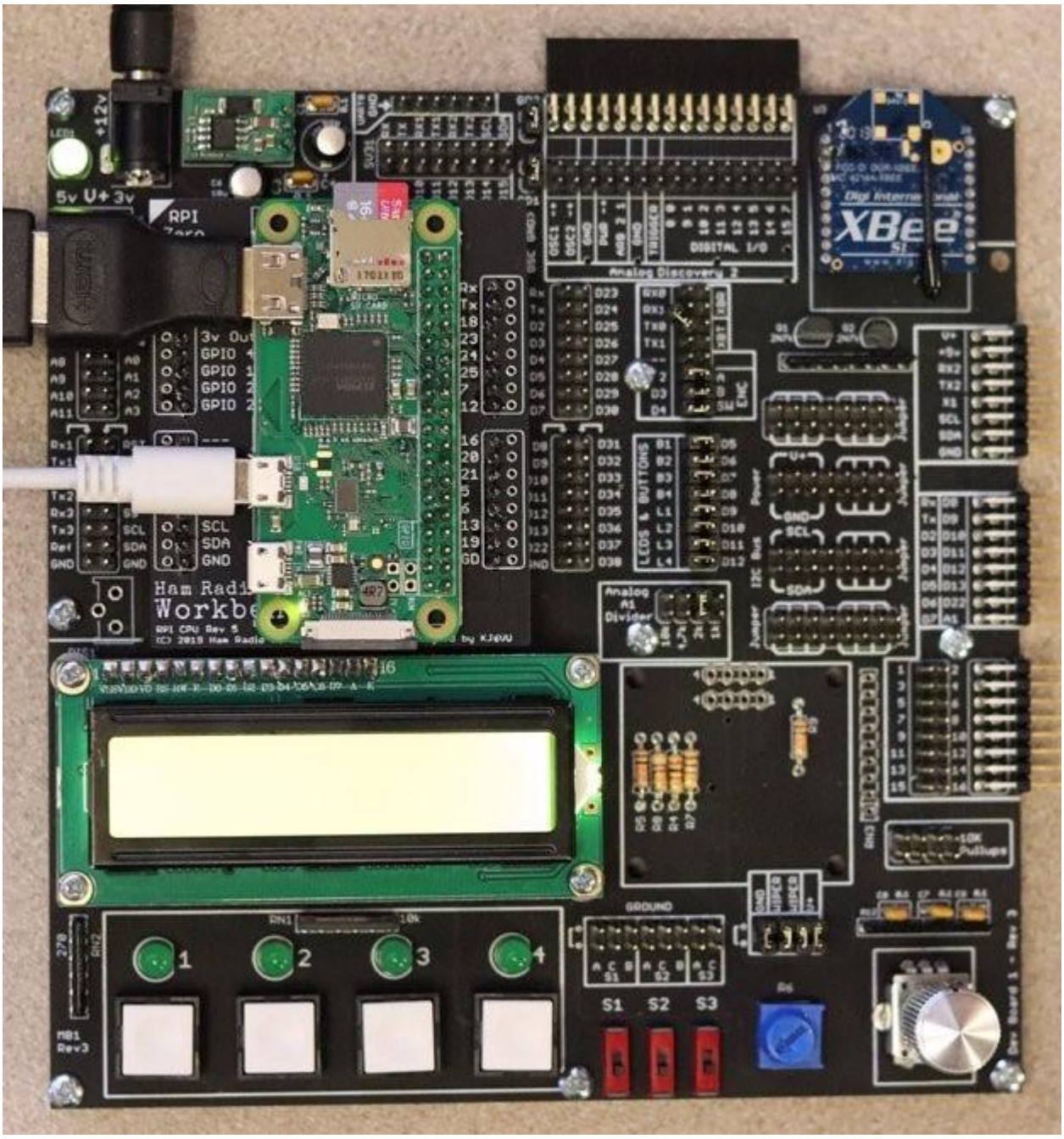
By Rube Goldberg – Originally published in Collier's, September 26 1931, Public Domain, https://commons.wikimedia.org/w/index.php?curid=9886955

Far more than will admit, amateur electronic builders tend to have a prototype that looks more like a Rube Goldberg cartoon than something designed by Hewlett Packard (when they were building). Me, too. There's just a lot of wires, connectors, rigged-up jigs, and so forth when you're trying to get a circuit to work like it's 'sposed to. And, put a microprocessor or small PC board into the mix, *aye yai yai!*

There are breadboards, even sophisticated ones, that help with this. And, there are design boards to facilitate with some PIC development as well as ones that help with Arduino or Raspberry Pi projects. That's good. But I've seen nothing like a workbench platform for most all of these with hardware and software hooks to keep Rube Goldberg in Collier's Magazine. *Until now.*

George Zafiropoulos KJ6VU of the Ham Radio Workbench Podcast team has put together what he calls the *Benchduino*. George has an Internet group on the project at Groups.io. You can follow the beta development there by joining. But you can get more meat on the bones by listening to a recent episode of the HRW podcast on the *Benchduino*. If you build using microprocessors, you will not be disappointed.

This product will be BIG for builders. You can download the interim documentation file. Here's what it looks like, taken from the website page. There are multiple add-on boards to connect to Arduino Mega, Raspberry Pi Zero, PIC – 40 pin 18F series processor, Adafruit Feather, Xbee data radio socket (built-in). George has pre-loaded shopping carts for necessary parts at Digi-Key for various boards. To channel the comedian Martin Short: *I must say, I must say!*



Benchduino Prototype

Taken from the HRW website page:

The BenchDuino is a development platform for building projects based on the Arduino, Raspberry Pi and PIC microcontrollers. The platform defines a common foot print for processor and expansion boards to make it easy to expand the functionality of the system. The BenchDuino motherboard includes many commonly used peripherals which can be connected to the CPU pins with jumper wires or plug in shunts. The *BenchDuino* is an open platform and we encourage the development of plug-in CPU and expansion boards.

https://www.hamradioworkbench.com/benchduino.html

Now, this is quite dramatic for prototype development using various microprocessor boards. But the pièce de résistance, IMHO, comes via the header on the top edge of the *Benchduino* as shown in the photograph above. Need several pieces of test equipment, including a logic analyzer, to check out whether your code makes the light blink (or whatever)? Use the Analog Dis-

covery 2 USB-based test workbench directly connected to the *Benchduino!* I love mine, including the latest add-on Impedance Measurement Board (~$20). The HRW Podcast has a $100 off discount code for the AD2 product through their website which takes you to Digilent.

So, in brief, your project doesn't have to be a Rube Goldberg cartoon that you'd just not like your builder buddies to see before it's completed. Your project may not get *Bob's Your Uncle* status upon first execution, but it will likely be *Bob's Cousin* with the *Benchduino* and the Analog Discovery 2. The latter has multi-platform free software for the hardware which makes it a Swiss Army Knife of test equipment.

I'm buying my *Benchduino* boards from the Ham Radio Workbench booth at Hamvention this year. George is giving a Forum talk / demo on the Benchduino too. (Digilent will also be at Xenia with the HRW discount. Get the Impedance Analyzer Board while you're at it.) Let George know you're coming via Twitter: @kj6vu

***Frank Howell, K4FMH**, is a regular contributor to AmateurRadio.com and writes from Mississippi, USA. Contact him at k4fmh*

MORE CORRESPONDANCE

Marc Koechl VE3VMK sent the following website from Ham Nation with an in-depth review of the Dayton Hamfest hosted by Bob Heil.

https://qrznow.com/dayton-hamvention-review-ham-nation-403/

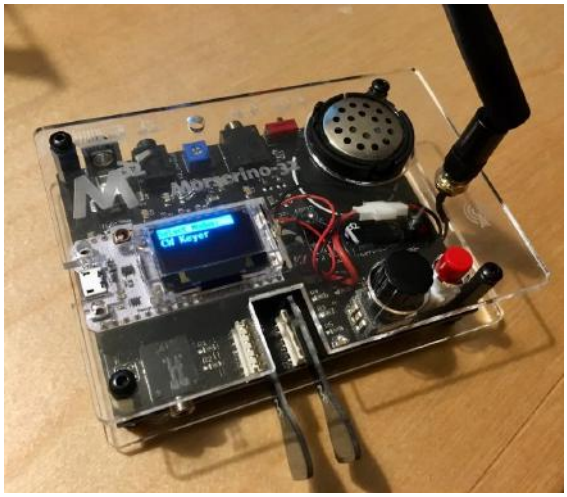
And from Mike VE3MKX we have two illustrious photos from the largest hamfest in the world.

Paul VE3PDC, Tim WB2KAO and Ken VE3KCY

Mike VE3MKX, Paul VE3PDC and Ken VE3KCY.

Learning about batteries By Dan Romanchik, KB6NU

I often say that getting an amateur radio license is as much getting a license to learn as it is getting a license to operate on the amateur radio bands. Lately, I've been learning about batteries, LiPo batteries to be exact.



It all started when I purchased a Morserino **(http://morserino.info/).** The Morserino is a Morse Code learning aid that has a number of unique features. For example, in addition to helping you learn the characters, it's also supposed to help you learn how to copy in your head. It also has a built-in touch keyer function, and a LoRa interface that lets you send and receive code from other Morserino units.

I'll be writing more about the Morserino in a future column, but let's get back to batteries. The kit did not come with a battery. Instead, it was suggested that one purchase a 600 mAh LiPo battery commonly used for powering drones.I found this battery on Amazon , and purchased a six pack of them, thinking that I'd find uses for the other five in some project or another.

https://www.kb6nu.com/wp-content/uploads/2019/05/tattu-3.7v-600-mah-battery-768x522.png

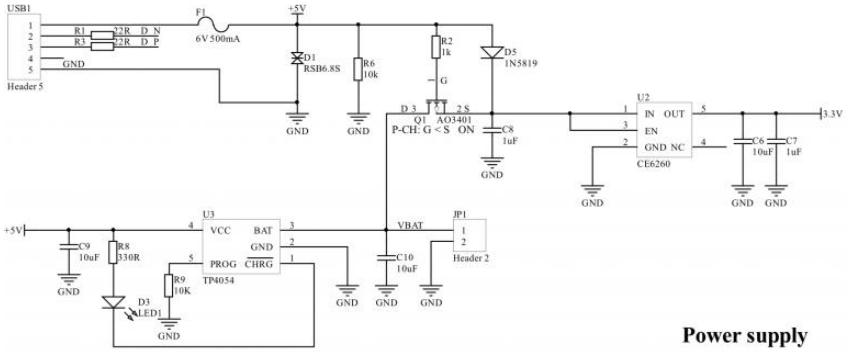
Well, sooner than expected, I did find another application for one of the batteries. I'm building a little Arduino project for a client, and I reckon that this, or one with more capacity, will make a great power source for the project.

Now, I have two immediate challenges:

1. Figure out how to charge the battery.
2. Figure out how to connect it to the Arduino.

On the Morserino, the battery plugs directly into a connector on the bottom of the computer board (the white board with the LED display). I knew that connecting the 5V line from the USB connector directly to the battery was a no-no, but I'd lent out the Morserino to a friend, and I didn't have the schematics for the board. So, how they managed to charge the battery from the USB port was a bit of a mystery.

I emailed Willi, OE1WKL, the designer of the Morserino, and he sent me a wealth of information. There actually is a battery-management IC, the TP4054, on the board:



Power supply

https://www.kb6nu.com/wp-content/uploads/2019/05/heltec-power-supply-768x327.png

He also gave me the part number for the battery's mating connector. He said, "The mating connector for the Molex connector on the battery is a Molex 51006. It is sometimes referred to by vendors as 51005 female, but 51005 is the connector on the battery." You can, of course, buy pre-made cable assemblies on Amazon **(https://www.amazon.com/gp/product/B07P54QTR8).**

You can also buy lithium battery charging modules **(https://www.amazon.com/gp/product/B01LZSC7I8).**

These modules have a TP4056 on them, which is similar to the TP4054. It's amazing to me that you can purchase ten of these things for less than seven bucks.

So, that's where I'm at right now. Once I get the modules and cables, I'm going to hook it all up and get the Arduino system running from the battery. The next step will be to integrate a small solar panel and run the whole thing from solar power, hopefully.

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Dan Romanchik, KB6NU, is the author of the KB6NU amateur radio blog (KB6NU.Com), the "No Nonsense" amateur radio license study guides (KB6NU.Com/study-guides/), and one of the hosts of the No Nonsense Amateur Radio Podcast (NoNonsenseAmateurRadio.Com). He often wonders if he can learn things fast enough.

VE3ERC Elmira Radio Club Inc.

Minutes from May 22, 2019

1. Call to Order & Welcome

The meeting was open at 7:30 pm by our Club president Brian VA3DXK

2. Roll Call: VE3DXQ Tom, VA3GWM Gord, VE3DCC Rich, VE3DWI Tony, VE3IXX Bob, VA3QB Bill, VE3ML Wes, VE3CXU Doug, VA3FJM Frank, VE3JMU JIM, VA3TET Al, VA3PDC Paul, VE3QB Bruce, VE3RVH Reg, VE3DXK Brian, VE3YBM Brian, VE3CDF Andy, VE3DCC Rich , VA3WPJ Jack, Kirk VA3KXS, VA3SQD Dan, VE3JLC Jim, VE3JBO Johan, Dave VA3DXK.

3. Adopt Agenda : Brian VA3DXK said there are 21 club members present which gives us a valid quorum for the AGM. Also we had a Ham Fest presale with equipment provided by Al VA3TET and Tony VE3DWI. Brian said he corrected the date of the Field Day to June 22, 23. 2019. Also he added the topic of the Alma repeater. Agenda was adopted with correction, and addition.

4. Presentations/Speakers/Workshop: Radio Gear Buy and Sell night.

5. Secretary's Report: Tom VE3DXQ asked if there were any errors or omissions. None were mentioned. Tom made a motion to have report accepted. Seconded by Johan VE3JBO. Carried.

6. Treasurer's Report: Paul VA3PDC made a presentation of this month's report showing dues collected, service charges and balance. Paul made a motion to have the treasurer's report accepted seconded by Bob VE3IXX. Carried. Paul also showed the balance sheet for 2018.

7. President's Report: Brian VA3DXK AGM & Officer Elections- nothing new to report as nominations were held last month.

8. Committee Reports:

Safety Officer (Tom VE3DXQ). Tom advised he checked safety equipment on hand and said he has 8 safety vests, 22 small orange road cones, and 9 safety goggles.

Field Day- Brian VA3DXK opened the floor for discussion on where to hold Field Day this year. Al VA3TET said last year's field day did not turn out too well as there was low attendance and poor weather. Rich VE3DCC mentioned the possibility of using the bandshell in Elmira. Bob VE3IXX said his place is available. The consensus is that we have Field day at the firehall as it is more central and has an antenna readily available. Brian VE3DXK marked the date on the Firehall calendar and will contact the firehall chief to confirm. Brian asked for a show of hands to see how many are going and at this point it looks like 6 people. We will discuss later at Wednesday coffee and via email who will bring what.

Point Clark Lighthouse Aug 16-18-Brian VA3DXK said this is our show case event for the summer and has been for sometime now. Al VA3TET and Paul VA3PDC will serve up Al's famous mushroom and onion burgers. Brian asked what the fee was for lunch and it is $5.00. Al VA3TET said this covers it almost to the nickel. Al VA3TET said he has already contacted the lighthouse. Brian VA3DXK said we should work out a schedule so we know who will be working what bands and at what time. Frank VA3FJM said he will have his trailer there again this year. Al VA3TET said we should get up there earlier to see if we can hook up one end of the G5RV across the way on a tree near a house, but we will need permission.

Ham Tech Committee Sept 21, 2019 (Frank VA3FJM) Frank said that he already has 3 speakers lined up and has some leads on who a fourth might be. He is working on getting the media for this event, and has a list of last year's attendees. He said he will be sending an email with the information of this year's event to last year's attendees. Bob VE3IXX will be sending out the info on Ham Tech to other radio clubs. Frank said the email will have a response regarding last year's Ham Tech, and a form to attend this year's event. He said he is not sure how the financing will work out on this, but will see. Al VA3TET said it would be good to put up flyers at the various flee markets. Frank VA3FJM said he does not have the food arranged

yet, but will probably be the same as last year. Al VA3TET and Rich VE3DCC will continue to support Frank.

9. Unfinished Business: Brian VA3DXK said he will set up the membership roster, and send a copy to Paul VA3PDC and Tom VE3DXQ. Brian said he updates it monthly and it shows the month and year. Bill VA3QB said he would like members of ERC to get on the Yahoo Group mailing list. This is for the club. VA3QB said he will help walk anyone through the process to get on there. Bill VA3QB made a motion to have an email sent to all ERC members to see if they would like to join the ERC Yahoo group. Seconded by Al VA3TET. Carried.

Dayton Hamfest report: Paul VA3PDC and Bill VA3QB attended the Dayton Hamfest and said the weather was good and it was very well organized. The food was ok. There were a lot of seminars and they were in air conditioned facilities.

CAER Emergency Preparedness Open House May 30th: Bill VA3QB, VA3TET Al, Bruce VE3QB, and Reg VE3RVH will be there to set up. Al said set up is at 9:00 am and students start arriving at 10:00 am.

Central Ontario Hamfest June 2,2019: Reg VE3RVH said we will have 3 tables and Tony VE3DWI will have a table. Reg is just waiting for table numbers. Al VA3TET said we will be doing ONTARS for a couple of hrs. Bill VA3QB said it would be good to have a flyer promoting Ham Tech Day.

10. New Business: Brian VE3DXK said he will contact John VE3JXX and try and get a contact for the feed mill and take others with him to meet up with the contact.

Brian VA3DXK asked Bill VA3QB about the Alma repeater. Ken VE3KCY said he could put a tower and antenna up at his shop in Alma. Bill said the elevation was very good. Brian VE3DXK donated a tower to put up there. Tony VE3DWI will loan us a repeater and filter to get things going, as well as feedline and a controller. Ken has an antenna a 210C2 to put up there. The repeater will have Tony's call sign VE3DWI. The frequency will be 147.255 Mhz. This will be a club repeater. We will use the Yaesu 8800 for cross banding to the UHF repeater. Bill VA3QB said he will need funding from the club for hardware to put the tower together. Reg VE3RVH made a motion for $150.00 for hardware to put the tower together seconded by Bob VE3IXX. All were in favour. Carried.

Officer Elections: Brian VA3DXK posted the Ballot for nominees on the Flat screen monitor as follows-

ELMIRA RADIO CLUB - VE3ERC

BALLOT for Club Officer Elections, AGM MAY 22nd 2019

POSITION	POSITION	POSITION	POSITION	POSITION
President	Vice President	Treasurer	Secretary	Trustee
Incumbent/Nominee	Incumbent/Nominee	Incumbent/Nominee	Incumbent/Nominee	Incumbent/Nominee
Brian Filbey I	Ted Rypma I	Paul Curtin I	Tom Mahony I	Wes Snarr N

Al VA3TET made a motion to accept the ballot. Seconded by Tony VE3DWI. All in favor carried.

Club Sanctioned Events: Brian VE3DXK mention that we already Sanctioned club Activities for the year last September. Rich VE3DCC made a motion that we henceforth sanction all club activities from AGM to AGM. Seconded by Bill VA3QB. All in favour Carried.

Constitution & Bylaws: please see Prez Sez on page 2.

All changes are in Blue font and have been passed.

11.ANNOUNCEMENTS:

Next meeting June 26, 2019

CAER Emergency Preparedness Open House May 30th

Central Ontario Hamfest June 2, 2019

Point Clark Lighthouse Aug 16-18

12 meeting Adjourned at 9:30 pm