



# Smoke Signals

## Newsletter of Fullerton Radio Club

### September 2020

#### September "Zoom" Meeting

##### "Just what is this Arduino Thing, Anyway?"

Dennis, W6DQ, will provide an enlightening discussion about the Arduino. You have probably heard of this device, maybe even used them yourself. They have become quite ubiquitous with hobbyists and experimenters as well as being used for commercial applications. They take on many forms and are available at a wide range of prices and sources. We will discuss what the Arduino is, and what it isn't. And maybe we will peak your interest enough to try your own hand at an Arduino-based project.

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Bio for Dennis

Originally licensed in 1969 as WN6NIA, Dennis quickly got his Advanced license and became WA6NIA. Following his upgrade to Amateur Extra, he was granted the callsign of one of his high school Elmers, Chek Titcomb, W6DQ. Some you probably recognize or know Dennis as a member of FRC, hosting the TAG meetings at his home in Fullerton, and as an Assistant Coordinator for HDSCS. He retired in 2012 from the aerospace industry, having spent nearly 40 years as a System Engineer, primarily working with large scale computer systems, network communications and Information Assurance. Last year he married Lisa, KF6QNG sharing a home and ham shack in Inyokern, CA, situated on five acres known as Faraday Fields.

An avid collector of vintage communications gear, he spends his time restoring and operating his large collection of Collins, Drake, Johnson and many other vintage radios, as well as using state-of-the art systems such as the Flex Radio 6700 and Elecraft KPA-1500, and maintains a fully equipped electronics lab and workshop, supporting everything from DC to 122 GHz (his latest project).

Following the major earthquakes that occurred last year in his area, Dennis was appointed Emergency Coordinator for Eastern Kern County ARES, an assignment for which HDSCS trained him well.

#### President's Message

Happy September Everyone! The FRC Board hopes everyone is staying safe!

While the virus has hampered club get togethers, remember, we still have a two meter net on Wednesday nights as well as a Zoom meeting. And if you have a technical interest, we have the Technical Advisory Group (TAG) meeting on the second Wednesday also! We'd love to see and hear from you! If you are interested, VP Bob Houghton AD6QF can get you the details.

As 2021 approaches, our annual election for the leadership of the club is upon us. Over the next few weeks, you will be hearing from board members requesting people to step up and become club officers. It takes little time each month, and we are always looking for new ideas and projects. Please consider becoming a club officer; remember it's YOUR club.

We're always looking for speakers to talk about things they are interested in, and it doesn't have to be amateur radio. Please let us know if there's anything you'd like to talk about. We'd like to see you at the Zoom meeting or on the two meter net!

PLEASE remember to renew your membership for 2021. Your \$20 goes towards the costs the club incurs each year: Postal Service charges, Club Insurance, gifts for the holiday dinner, and government fees that are required to keep the club incorporated. Send your check to Gene Thorpe at the club PO Box or follow this link <https://fullertonradioclub.org/application-renewal-form/>. Thank you!

73,

Tom, WB2LRH

**Fullerton Radio Club**  
**P.O. Box 545, Fullerton, CA 92836-0545**

**Board of Directors**

**President**

Tom Gaccione WB2LRH  
Email: tsgaccione@yahoo.com

**Vice President**

Bob Houghton AD6QF  
Email: bobhoughton@mac.com

**Secretary**

Linda Endsley, KJ6IHB

**Treasurer, Public Service, Membership**

Gene Thorpe, KB6CMO  
E-mail: kb6cmo@juno.com

**Members At Large**

Richard Belansky, KG6UDD

Walter Clark

Robert Gimbel, KG6WTQ

Larry McDavid W6FUB

Paul Broden, K6MHD

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**Volunteers**

**T-Hunt**

Joe Moell, K0OV  
http://www.homingin.com  
E-mail: homingin@aol.com

**W6ULI License Trustee**

Albert Solomon, AG6OF  
E-mail: albertsolomon18@gmail.com

**Newsletter Editor**

Paul Broden, K6MHD  
E-mail: pbroden@sbcglobal.net

**BOARD MEETING**

***The next Club Board meeting will be on  
October 14 and will be conducted using  
Zoom video conferencing platform.***

***5:40 PM***

***Members are welcome.***

**Show –and–Tell**

Bring something of interest to the meeting to show and share your story.  
Something old, new, or just of interest to hams.

**Web site: [www.FullertonRadioClub.org](http://www.FullertonRadioClub.org)**

**September Board Meeting Minutes**

The September 2020 FRC Board meeting was called to order at 5:40 pm by President Tom Gaccione WB2LRH via Zoom (Coronavirus). Others present: Vice President Bob Houghton AD6QF; Treasurer Gene Thorpe; KB6CMO; Secretary Linda Endsley KJ6IHB, Board members Paul Broden K6MHD; Larry McDavid W6FUB, Robert Gimbel KG6WTQ

Minutes were approved. With corrections, Larry McDavid call sign W6FUB and Robert Gimbel was in attendance.

Treasurer's report:

Checking - \$3,920.42; \$Savings - \$2,608.56 as of 8/12 income \$60 from new members

Old Business:

Two new members added. 33 paid and 3 life members. Total 31 members, 3 life members.

Tax and corp filings status: Gaccione report – As of 9-1-2020, we are still not a tax exempt entity. The FTB website says it may take up to 4 months to process, and that we will get a grant letter if we're approved. We submitted the application at the end of November 2019. I have not heard anything from them.

Bob filed our incorporation [Statement Of Information] documents for 2020; we are good until 2022.

New Business:

September speaker – Dennis Kidder W6DQ on Arduino Microcontrollers

Election 2020 suggested to seek officers for 2021; do nominations in October, and elections in November.

Voted to reimburse Bob the \$90 for the web site.

Next board meeting: 8 October 2020

Adjourned at 6:20 pm

Submitted by Linda Endsley KJ6IHB

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## September FRC Meeting

The September Club meeting will again be presented by video teleconference using Zoom. Members will receive Zoom connection information by our [Groups.io](https://groups.io).

**Meeting date: September 16  
2020;**

**On ZOOM!**

**8:00 PM**

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## Club Election

We're at that time of year again. Elections! Not just those related to national, state, county, and city leadership, but **Our Club Leadership as well.** Club by-laws require that the club President appoint a nominating committee at the regular September club meeting, consisting of one or more members. The committee will be nominating one member for each office, plus at least one member at-large. Nominations are subject to approval by the candidate. Nominations made by the nominating committee will be presented to the club by the President at the October regular club meeting (currently held on Zoom). If members volunteer to serve as candidates for all offices and at least

one member at-large, the board may dispense with the nominating committee. Additional nominations may be made from the floor at the October regular club meeting, and are subject to approval of the candidate. *And yes, you can nominate yourself.* Additional nominations may be made prior to the election at the November regular club meeting.

So why are we emphasizing this? Because the Board needs you, either to nominate a candidate, or better yet, to volunteer to be a candidate. If the nominating committee comes to you and asks for you to be a candidate for one of the offices or member at-large, please consider the request seriously. The jobs aren't all that demanding, and won't take all that much time. All positions are open for candidates. How about YOU as a candidate?

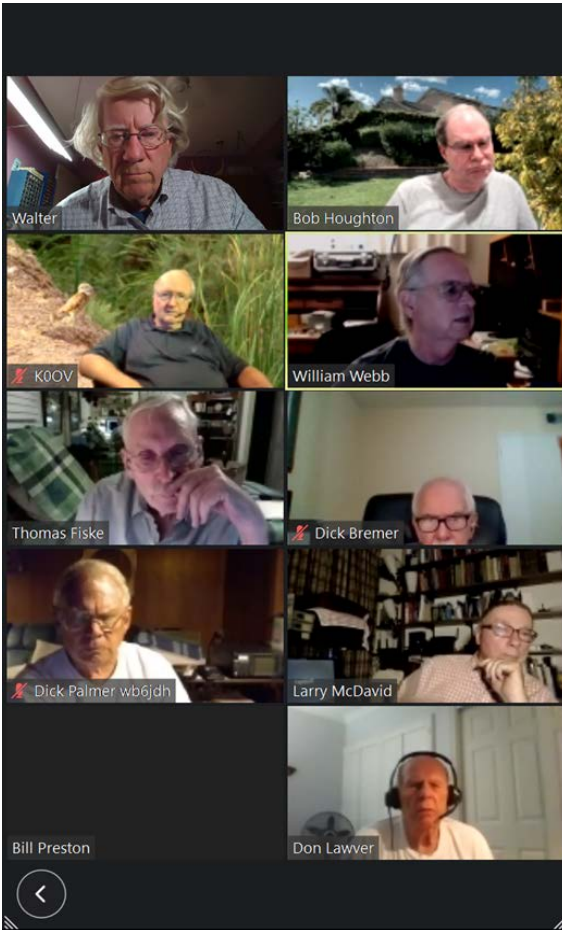
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### **FRC Wednesday Net:**

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We're conducting a 2-meter net on Wednesday evenings. All members, prospective members and friends are welcome. Raytheon repeater, 7:30 PM: 146.970 (-) PL 136.5. This is followed by a chat session on Zoom at 8:00PM. Members will have the Zoom code, but we don't publish it openly to prevent unwanted interruptions.

**TAG Activity Report**  
**(Technical Advisory Group) of the Fullerton Radio Club**  
**for September 2020**



In black for the entire meeting was **Bill Preston** in Texas. This seems to be the way he joins us for the last several months. He checks in without the camera. We know he has one; we've seen him. He just doesn't turn it on. He says hi and then leaves. We presume he checks in once in a while to see if we are talking about anything of interest to him.

Not shown here is **Tom Hall**. He led a discussion of polarization of long wave bouncing off the ionosphere. There were some things he wasn't sure about and asked for help. But Joe said to him, what we all thought, that he was the expert on polarization. He also recommended a book, which Bob Houghton has subsequently purchased and is now reading: [Propagation and Radio Science](#) by Eric P. Nichols, KL7AJ.

**Dick Bremer** in the picture here is laying low. He was verbally laying low too. Normally he has a project

for his home owners association or his local RACES.

**Joe Moell** was active in general discussion but didn't have a project to share with us.

**Tom Lawver** similarly was only involved in the general discussion.

**Dick Palmer** brags about the number of radios he has. We thought he was kidding about being in the QRP 100 Club. And then he said something about his marriage being at risk. So he bought a cabinet to put his best ones on display. He then explained to his wife that it was art. He thinks it worked.



**Walter** (our host), when we were meeting at his house, would provide sodas and in view of the very hot weather he thought he'd share some of his adventures in zero calorie fizzy drinks. What happened is that his taste buds became accommodated to the lack of sweetness, so that when he tasted normal Coke it was Sooooo good.

**Larry McDavid** introduced us to a new tool in the way of a You Name It. None of us could. See if you the reader can figure it out.

What the tool is for is at the bottom of this report.



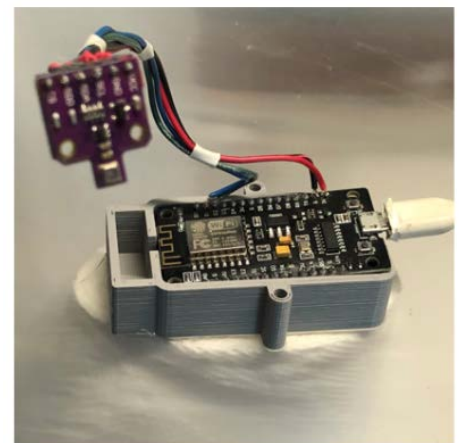
**Tom Fiske** and Larry shared their experiences with process control in factories. (Tom was in charge of a GE manufacturing plant once.) His present project however is much more mundane. He has a 24 year old fan and the controller went out. He attempted to fix the power SCR but gave up finding the part. So he's stuck buying a whole new unit at Home Depot.

**Bill Webb** finally finished his Santiago Canyon College course work on Blender and 3D printing. Here's a link to his first pouring liquid project:

<https://1drv.ms/u/s!AmXKqAwyCrbxiOptOO0J12y3iJvJxQ?e=AhBAX8>

The electronic projects he worked on had to do with microcontrollers. His other keen interest (besides 3D printing) is weather instruments and to add to his collection is a single board with temperature, humidity, air quality and barometric pressure. His part in the building was connecting it to a microcontroller (ESP8266) and then writing the firmware so the values show up on the internet. You can see the output of this board here: <http://orangecaweather.duckdns.org:8002/> Bill designed the enclosure for it and 3D printed it.

As a second electronic project he couldn't resist an ESP8266 with camera for only \$10, but alas the circuit board was faulty. At \$10



it's not worth the hassle to get it replaced.

## Camera with Microcontroller Arrived

Camera is a 2 Megapixel: 1622X1200

Low-power dual-core 32-bit CPU for application processors.  
Main frequency up to 240MHz, computing power up to 600 DMIPS.  
Built-in 520 KB SRAM, external 4M PSRAM.  
Supports interfaces such as UART/SPI/I2C/PWM/ADC/DAC.  
Support image WiFi upload.



### MEMBERSHIP RENEWAL / APPLICATION

Fullerton Radio Club  
PO Box 545, Fullerton, CA 92836

(Please Print)

Name #1 \_\_\_\_\_

Call: \_\_\_\_\_

Class: \_\_\_\_\_

Name #2 \_\_\_\_\_

Call: \_\_\_\_\_

Class: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_

State/Zip: \_\_\_\_\_

Phone #1: \_\_\_\_\_

Email #1: \_\_\_\_\_

Phone #2: \_\_\_\_\_

Email #2: \_\_\_\_\_

ARRL Member  Yes  No

Special Amateur Radio Interests: \_\_\_\_\_

Dues are \$20 per member, or \$25 per family. Students (full time) \$10

**Bring your application and dues payment to the next meeting or mail to the above address.**