



Smoke Signals

Newsletter of Fullerton Radio Club

September 2021

President's Column - September 2021

Four for the price of one.

The Fullerton Radio Club is an ARRL affiliate club and many of our club members are also ARRL members. One of the “perks” of ARRL membership has always been receiving *QST*, the ARRL journal. But, there are three other ARRL “magazines,” and as a member, did you know you can receive electronic copies of all four publications for free? *QEX* bills itself as “A Forum for Communications Experimenters,” while *NCJ* is the National Contesting Journal, and *On the Air*, “ARRL’s new magazine for beginner-to-intermediate hams.”

As an ARRL member, you can read or download the current editions or previous “archived” editions. *QST* is available back to January 2012 and the other three back to January 2020, which is when the electronic editions of *QEX*, *NCJ*, and *On the Air* first became free for members.

One way to download the free electronic versions of these publications is to log in to the ARRL website. If you don’t already have an account, you can easily create one. You will need your callsign and ARRL membership number (your membership number is on your *QST* label).

Once you have set up an account, you can also read the four publications on your smartphone, iPad or Android tablet. Go to the Apple app store or the Google Play store and search for “ARRL Magazine” and download the free app.

Next month I will try to get some of you to look at *QEX* with me.

73,

Bob - AD6QF

**September Club Meeting date:
Wednesday, September 15
2021;
On ZOOM! - 8:00 PM**

We’ll be conducting our usual informal discussion, targeting, among other subjects, anything you’ve been doing for summer Ham activities. Same Zoom ID and password as in the past.

And here’s thought for those who have “highly skilled” jobs that require a great deal of education and special ability. **The human body is the most complex organism known, and it can be completely reproduced by totally unskilled labor.** That’s a quote from a past acquaintance with a keen wit.

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

Board of Directors

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Robert Gimbel, KG6WTQ

Larry McDavid W6FUB

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T-Hunt

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**October FRC BOARD
MEETING**

***The next Club Board meeting will be
on October 6, 2021. Location of the
meeting will be announced in
advance.***

5:30 PM

All Members are welcome.

***Note: The FRC Board will now be
meeting on the FIRST Wednesday, of
each month.***

Show –and–Tell

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

Web site: www.FullertonRadioClub.org

Board Meeting Minutes

Your Board of Directors could not identify business that required review and/or action, therefore, a decision was made not to conduct a Board Meeting in September. Hopefully, the next Board meeting will be held on Wednesday, **October 6, 2021 at 5:30 PM.** Location of the meeting will be announced in advance. Note; this meeting will be held on the **first Wednesday of each month**, a meeting day change as announced last month.

Financial Report:

Checking account \$4,155.72 Savings \$2,608.82
Total \$6,764.54

Membership:

No New Members

Free To a Good Home

Butternut HF5B Butterfly two-element beam for 20, 17, 15, 12 and 10 meters. Turning radius only 7 feet, can be turned with a TV antenna rotator. Help me take it down and you can take it home.

Joe Moell K0OV
(657) 286-5125



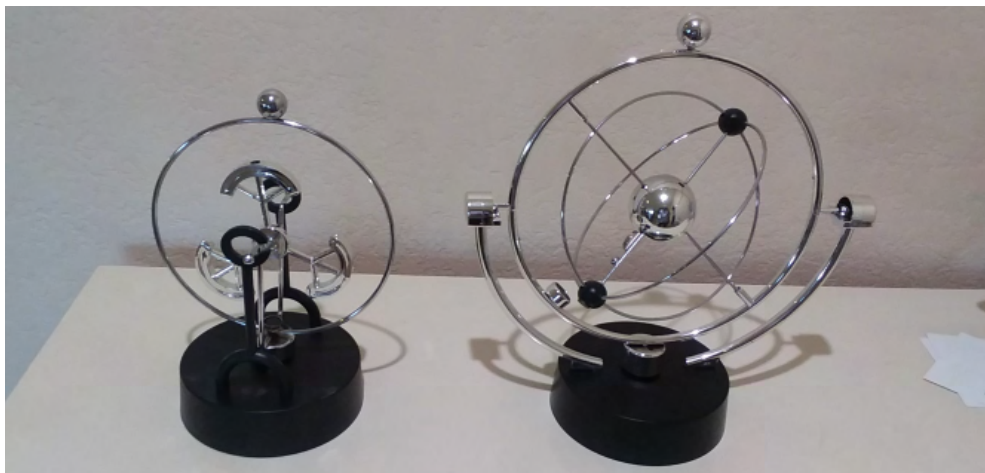
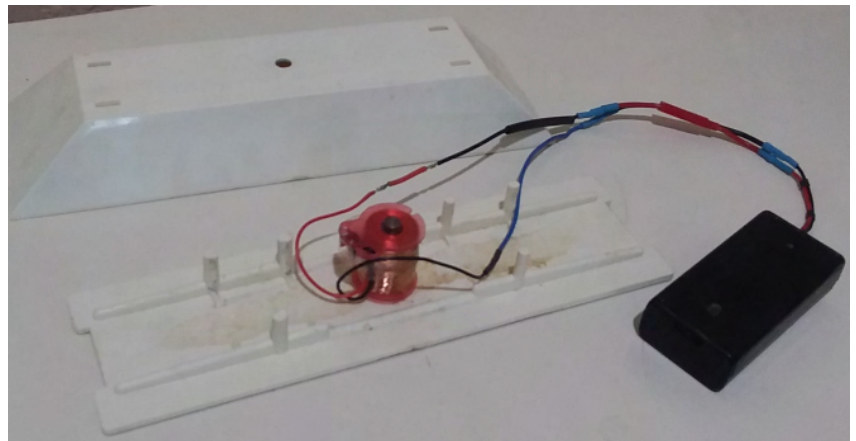
TAG Activity Report for September 2021

This was the third in-person TAG meeting since COVID. There was only five of us this evening: Walter (host and reporter), Larry McDavid, John Mock, Dick Bremer and Bill Webb so we didn't go around the room taking turns.

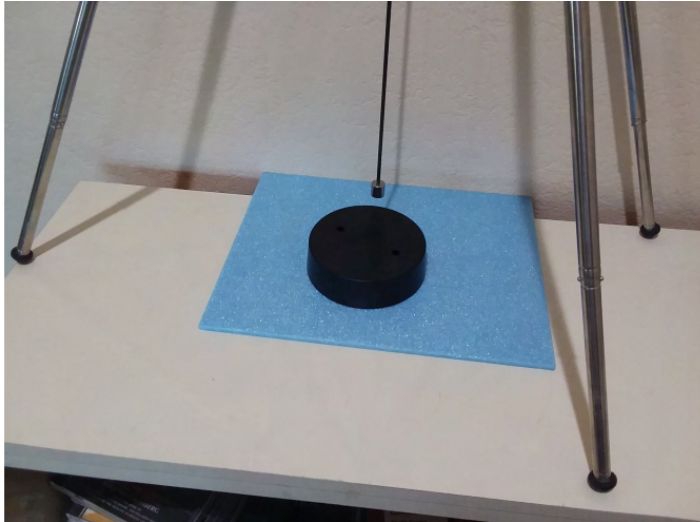
I started it off by talking about my pretend perpetual motion machines. Here's a picture of them at the meeting. Two of them were purchased at Hobby Lobby. One of them I invented myself. And a fourth I've had for 40 years. They are propelled by the action of a magnet swinging by and occasionally encountering a coil connected to a battery. It is most easily seen in this one...



Each arm has a magnet and the dot on the base is the core of a coil which would generate a voltage as the magnet went flying by. That voltage would turn on a single FET. That's it, just one circuit element. The FET would allow current from the battery to flow through the coil to produce a magnetic field of a polarity which repels the magnet. The momentum of the flying magnet carries it past the closest approach where it is pushed away for a longer period of time than being pushed away on the encounter side. The old one is most efficient in that it goes many months on the same battery. The other two go for only a few weeks on twice as many batteries. Below are the two less efficient perpetual motion machines.



The moving magnets are in the lowest position in this picture of them not moving. They of course have the same coil and FET in the base as described above. I went back to Hobby Lobby and bought another like the one on the right and used only the base for a perpetual motion machine of my own invention...

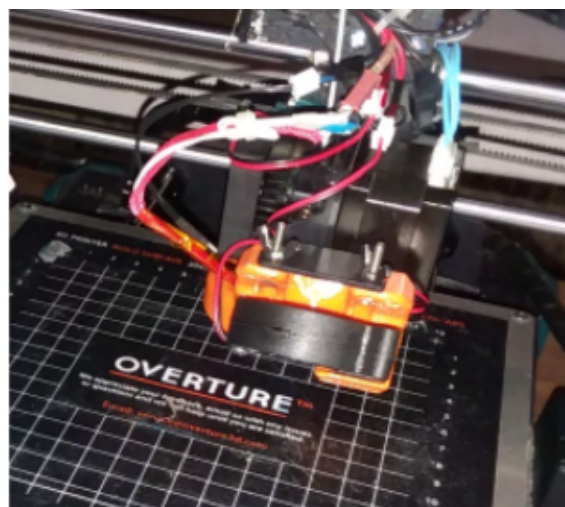
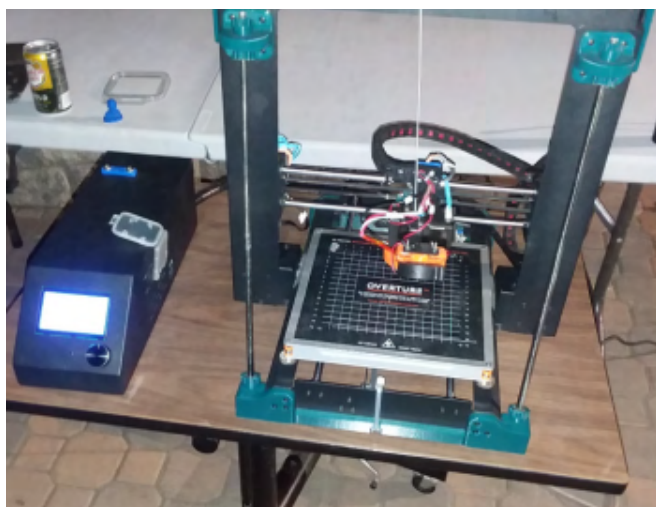


The magnet is connected to graphite rod I had, and the pivot was a steel ball that was stuck to a disk magnet that held itself onto the bottom of the tripod. I couldn't believe my luck. The pivot mechanism went together in less than a minute. The motion is a random swinging that can go on for hours or just a few seconds. So it's not at all perpetual, but it is much more amusing. The swings are so random both in direction and in amount.

Bill Webb brought a 3D printer with him this meeting. It ran for the two hours of the meeting to produce this:



We saw how supporting structures allow overhanging parts like his chin to be made. These supporting structures are connected by pieces so small they can be broken away.



This is his third printer and he found this one needed some stiffening. That's what the diagonal bars and the green brackets are. The beauty of a 3D printer is that it can make itself. This phrase was said of the lathe when it was a new invention.

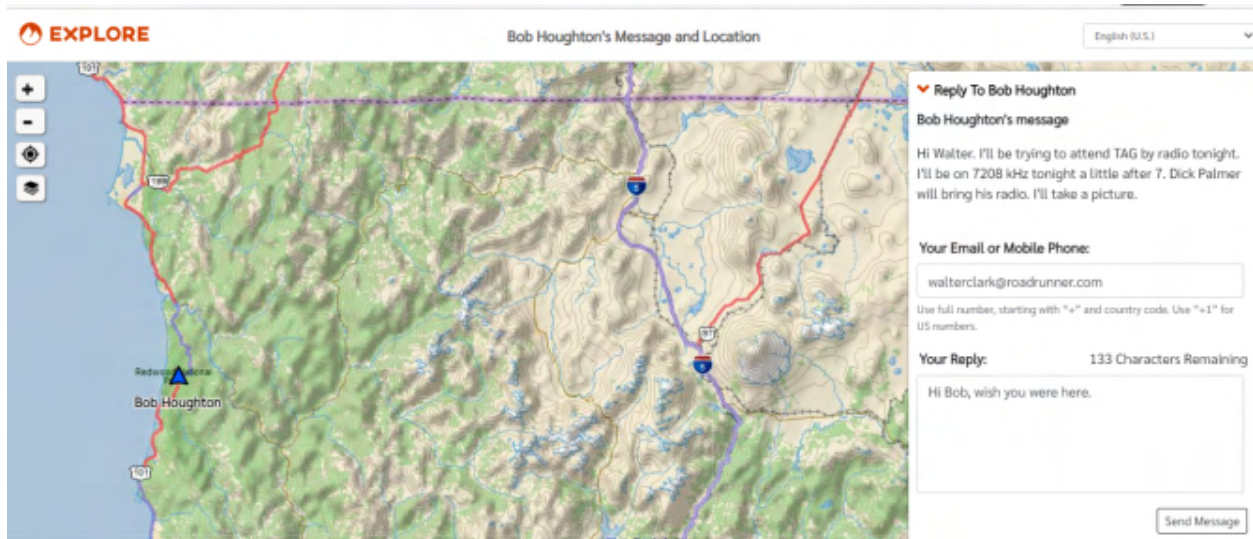
Larry McDavid talked about his 3D printing project using Bill's machine. On the left is **John Mock** and **Dick Bremer** admiring the handle that Larry supervised the design of. The handle is for a 2-meter direction finder.



Dick Palmer forgot to come to the meeting where he was supposed to be the main attraction. He was to bring his 40-meter rig so that Bob Houghton on vacation in northern California could join us at this meeting. Dick remembered but was too late to come to the meeting, so he tried from his house. The connection from his house to mine was of course by cellphone in speaker mode. At Dick's house was a better antenna than the one I have at my house. (Mine is horizontal, Dicks antenna, vertical.) He couldn't hear Bob. Dick blamed lousy ionosphere conditions. He said 10 watts on a clip lead could reach Argentina when the sun was active some 11 years ago.



Here's what Bob had to say to us that night by way of **Inreach** which I believe is a satellite connection . . .



In a later **Inreach** message, it read:

"I heard Dick loud and clear. He couldn't hear me. I tried two different radios. Not sure what the problem was."

On the right is Bob's antenna in a photo taken on Saturday.

Bob Houghton sent the above message from: Lat 41.358408 Lon -124.028907

The next two pictures are what Garmin Explore creates from Bob's location.





And by converting the above Lat and Long into the coordinates Google earth recognizes, this is a close up of where Garmin thought Bob was...





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: _____

ARRL Member ☐ Yes ☐ No

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.