## A qr code with black dots  Description automatically generatedCongratulations! You just got your Amateur Radio License!

A quick guide to what I wish I had been given after my exam.

I have a basic webpage with useful links at http://[qsl.net/k9stv/](https://www.qsl.net/k9stv/)

It lists local clubs, local Nets, and some helpful information.

## Your License

 A quick overview, overly simplistic and but a good rule of thumb. There are three levels of Ham Radio License.

**Technician**: The technician license grants access to UHF and VHF frequencies. These frequencies have limited range, and may be blocked by geography. Mobile stations can transmit with 50 watts of power, and handhelds usually run 5-10 watts. Handhelds extend their range using repeaters, which are radio stations that relay their signal at higher power, from an optimal location.

**General**: Grants access to HF frequencies. HF Frequencies are capable of talking around the world, and open up a wide range of new activities for hams. HF radios tend to cost more than VHF/UHF

**Extra**: Extend the bands and frequencies beyond General.

## Join the Ham Community

Your ham radio license is just the first step. To get the most from your license, you will need the support of other Ham Radio operators. You will want to find a local club to join. Be aware that some clubs are special interest clubs (dedicated to Emergency Communications or some such) and some are social clubs. Check out different websites for the clubs, and be aware that many hams join multiple clubs. You are also recommended to join ARRL, which is the national club that looks out for the interests of all us hams, and provides lots of useful resources to its members.

## Your first radio!

 Okay, you got your license, and you want to get on the air. Your first question is “What radio should I buy?” While the answer is open to debate, it really depends on what you intend to do. If you are like most new hams and just trying out the hobby, I would recommend buying a Baofeng handheld radio ($30). They are cheap and will get you on the air. If you intend to get into Emergency Communications, you might want to start with a better quality radio from ICOM or Yaesu. (~$150) . Programming your HT by hand is not intuitive, so you should probably make sure you buy a programming cable to allow you to program your radio using your computer.
 Above the Handheld class radio is the Mobile radio. Intended for installation in a vehicle, these radios have higher power output, and can be used as Packet Radio stations. You can use them at home as well. Prices around $500+.

 There are many brands of radio, and many features to choose from. If you are more serious about choosing a radio, join a club and find Elmers to talk to.

*Note! You can get on the air without a radio! You still require a license, but if you register (free) to use EchoLink you can run a program on your phone that will connect you to a Ham Radio over the Internet and broadcast your signal from that radio. You can connect to radios all over the world and transmit!*

## Your first contact!

 If you have a technician license, your range is limited and so are the number of people available to talk to. . This can be very frustrating and mislead you into thinking nobody is out there. This is not true, but if you want to talk to somebody, you need to know about Nets. A Net is a discussion held at a fixed time and frequency for various purposes. Many clubs hold regular Nets and welcome new hams. A list of Santa Clara County Nets is available on the website above.

## Using a repeater.

A common problem when connecting to a Net is not understanding that most Nets are run off repeaters. Technicians rely heavily on repeaters to reach a wider audience. On a repeater, you listen on one frequency, but you transmit on another frequency. There are three pieces of information you need to program for a repeater:

**Frequency**: The channel you will listen to.
**Offset**: Tells the radio to automatically tune up (positive or +) or down (negative or -) when transmitting
**PL Tone:** Lets the radio know to send an inaudible tone when transmitting to turn the repeater on. The number is like a “password” to use the repeater.

Follow the instructions for your radio to configure it to use a repeater. Below is a copy of the list from the website with the most useful repeaters. It will be updated as I find new Nets.

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| Area UHF/VHF Talk Nets |
| **Net** | **Repeater** | **Frequency** | **Offset** | **PL Tone** | **Location** | **Schedule** |
| 9 am Talk Net | N6NFI | 145.230 | - | 100 | Palo Alto | Monday through Friday, 9am (1-3 hours) |
| FARS Net | N6NFI | 145.230 | - | 100 | Palo Alto | Thursday, 08:00PM |
| PAARA Net | N6NFI | 45.230 | - | 100 | Palo Alto | Monday, 08:30PM |
| SARA Net | K6SA | 146.655 | - | 114.8 | Saratoga | Sunday, 09:00PM |
| SARA Net | K6SA | 443.150 | + | 100 | Saratoga | Sunday, 09:00PM |
| SBARA Chat | WA6PWW | 147.015 | + | 103.5 | Fremont | Monday, 07:30PM |
| San Mateo Radio Club | N6ZX | 145.370 | - | 107.2 | San Mateo | Tu & Th 07:00 PM |
| Youth Net | N6NFI | 145.230 | - | 100 | Palo Alto | Tu 07:00PM |

## Don’t give up!

Programming a radio can be intimidating, but you are not alone! Most clubs will try to help you program your radio, and learn to use software to do so.