6.002 Demo# 27
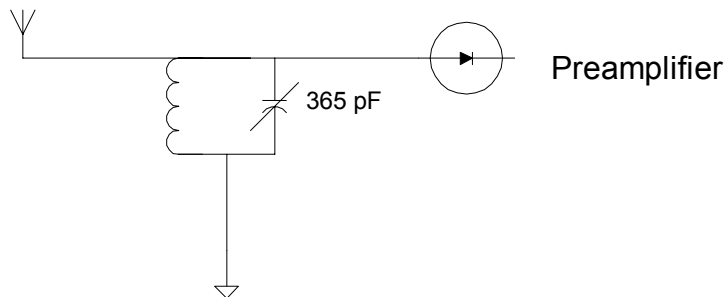**Parallel LC Radio**   **Agarwal Fall 00**
Lecture 18

Purpose:
Demonstrates an RLC filter to pickup AM radio.

Steps:

This uses a crystal radio from radio shack. The diode must have a very low threshold voltage, so silicon diodes may not be used. We also found that we could only receive radio broadcasts if the power supply to the amplifier was plugged in outside of a room, a large extension cord helped.

We pulled a hack in which we sent our own prerecorded broadcast from a modulator placed close by. The following was broadcast (this was during the week in which the famed recount battle between George Bush (Jr) and Al Gore took place Florida):
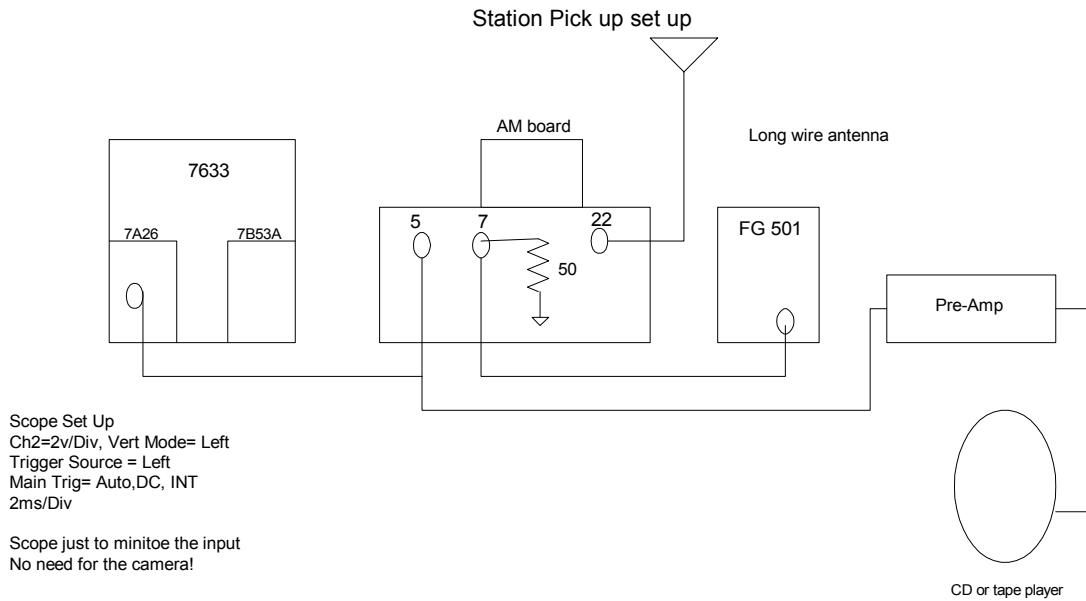
```
  -- Music for a few minutes

  - fade

  -- This is WBUL, Boston. We break into this broadcast with a news
  flash from Palm Beach, Florida. As the presidential standoff extends
  into its 7th day, Vice President Gore brings the first glimmer of hope
  to an embattled democratic process. In a widely attended news
  conference held outside the court house in palm beach, florida, Vice
  President Gore has offered to flip for the presidency. There is no
  word yet from Governer Bush's camp. Gore's offer has prompted a flurry
  of responses from several groups. Al Pringle, Vice Chairman of the
  Foxwoods group, has offered to mold a special commemorative quarter for
  this event.  With an ironic recursive twist, President Clinton
  quipped: "perhaps we should put this idea to a vote". More when we
  return.  This is Dan Slotnic, WBUL news.

  -- Music for a few minutes
```

Turns out we were counter hacked towards the end of our broadcast! A religious broadcast from MIT appeared from nowhere and drowned out our own broadcast.

6.002 Demo#27   Cristal Radio Prof. Agarwal Fall 00

Station Pick up set up

AM board

Long wire antenna

7633

| 7A26 | 7B53A |

5   7   22   50

FG 501

Pre-Amp

Scope Set Up
Ch2=2v/Div, Vert Mode= Left
Trigger Source = Left
Main Trig= Auto,DC, INT
2ms/Div

Scope just to minitoe the input
No need for the camera!

CD or tape player

Receiver Kit

Using long AC cable with AC cheater plug it in the hall way and we use radio shack crystal radio to pick up the station and also to get ao broadcast set up above.
The long AC cord is used to plug the Mac Amplifier only! When you receive the signal from cristal radio.

Cristal Radio

Long wire antenna

Pre -Amp built on protoboard

Mac Amp

Speaker