Project name: Audio Amplification Circuit

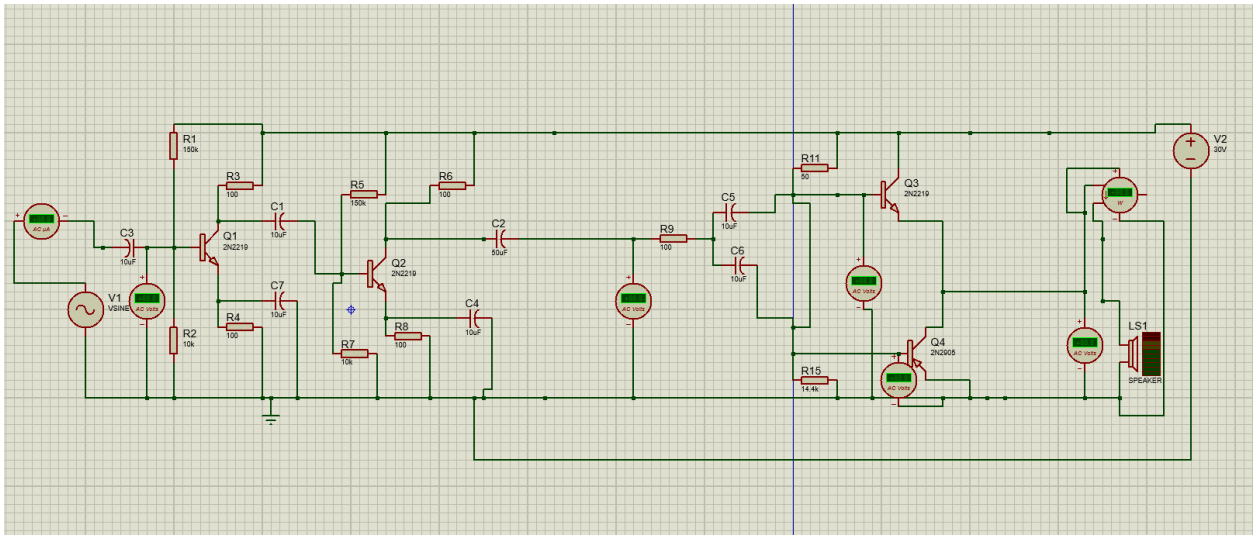
Objective:

1. To make an audio amplifier
2. To apply the knowledge of voltage and power amplification
3. To work on minimizing the noise
4. To achieve a certain stability factor

Description:

Here we are going to build an audio amplifier circuit which will amplify our audio microphone input and will show the amplified output sound through a speaker.
We used an “RC coupling” circuit as a pre-amplifier to amplify the AC voltage input and then used a “Complementary Power Amplifier” to amplify the power.
For the “RC coupling” circuit, we used two 2N2219 type BJT with capacitors and resistors and for the “Complementary Power Amplifier” we used one 2SC5200 N-P-N transistor and one 2SA1943 P-N-P power transistor.
We applied an AC voltage of 10mV-1kHz and a DC source of 30V and got output voltage of 27.2V and a power output of 19.1W.

Circuit Diagram:



Apparatus List:

1. Bipolar Junction Transistor - a. 2N2219(2) b. 2SC5200(1) c. 2SA1943(1)
2. Polar Capacitor - a. 10uF(6) b. 50uF(1)
3. Resistor - a. 150k(2) b. 10k(3) c. 2.2k(2) d. 100 ohms(4)
4. AC source
5. DC source - 30V
6. Speaker - 15W, 8 ohms
7. Connecting Wires