**6.1.1 Through research, find a few local AM radio stations that you can listen to. Calculate the required capacitance values required for a constant inductor value to tune to these stations. Make sure the inductor is not too big as you might get very small values for CT (and vice-versa).**

The following is a table showing the list of AM radio stations in Montreal.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Station** | **Frequency (KHz)** | | **Language** | | **Capacitor** | |
| WVMT | 620000 | English | | 6.58957E-09 | |
| CINF | 690000 | French | | 5.32037E-09 | |
| CKAC | 730000 | French | | 4.75329E-09 | |
| CJAD | 800000 | English | | 3.95786E-09 | |
| CINW | 940000 | English | | 2.86672E-09 | |
| CKGM | 990000 | English | | 2.58446E-09 | |
| CFMB | 1280000 | Polyglot | | 1.54604E-09 | |
| WIRY | 1340000 | English | | 1.41069E-09 | |
| CHOU | 1450000 | Polyglot | | 1.20477E-09 | |
| CFAV | 1570000 | French | | 1.02764E-09 | |
| CJWI | 1610000 | French | | 9.77211E-10 | |
| CJRS | 1650000 | Polyglot | | 9.30406E-10 | |

Using the equation:

And 100 uH for the inductor, we calculated the values of the capacitor, as shown in the table above.