# ITEC 4550

## Assignment 10 – Morse Code Transmitter

Create an android app that implements a Morse code transmission app. Your app should follow the example that will was demonstrated in class. A screen shot is attached below, for reference.

### Your implementation must:

* Provide a prompt with “Text to Transmit:”
* Offer an EditText field for user provided text messages
* Provide a button to initiate transmission
* Express the message, as dots and dashes by illuminating a section of the user’s screen white –or- activate the devices camera light. The illumination must correspond to the appropriate dots and dashed for the message.
* Emit an audio tone, representing the dots and dashes
* Synchronize the audio and lighted output
* Include your name in an *About* screen (not shown in demo)
* Include an image of your choosing in the *About* screen (not shown in demo)
* Include a description of the app in the About screen (not shown in demo)
* Provide a custom launcher icon (not shown in demo)
* Allow for punctuation and disregard unwanted characters (characters not recognized by the Morse code character set)
* Allow multiple messages to be stacked. For example, if the user enters SOS, and then rapidly depresses the Transmit button three times, before the first message has completed transmission, the following two SOS messages will transmit subsequently in a serial fashion.
* Follow the course assignment template when submitting.

### Submission Info

Your submission must include:

* a wiki project page with a demonstration video. Submissions missing this item receive **a grade of zero**.
* a URL for the wiki project page in your D2L dropbox submission. Submissions missing this item receive **a grade of zero**.
* Zip file with your entire project. Missing archives or archives in non-supported formats (rar, tgz, bzip, 7z, etc) will receive ***a grade of zero***. Archive must be a zip file.

You project page must not:

* Contain your source code

### Rubric

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| Points | Description |
| 10 | *Text to Transmit* prompt provided |
| 20 | Contains *About* screen, with: your image, your name and a well written description of the app |
| 10 | EditText view provided for textual input |
| 10 | Transmit button provided and operates properly |
| 30 | Dots and dashes rendered as lighted view or camera light |
| 30 | Dots and dashes rendered as audio tone |
| 30 | Light and audio synchronized |
| 10 | Custom launcher icon provided |
| 10 | Unrecognized character recognized properly |
| 20 | Stacked messages handled with queueing |
| 10 | Implementation follows good coding practices |
| 10 | Provide four suggestions for new functionality in your app. You do not need to implement these. Provide these in a doc (or docx) file. This file should be submitted to the assignment dropbox. |

### Hints

* You may use the files provided
* You do not need to worry about implementing a responsive design
* You do not need to highlight the active character as demonstrated in class and the accompanying video
* You may want to implement a AsyncTask to provide the synchronized, queued audio and video
* Camera deprecated, but it still works

