# Overall Architecture

Most of the projects share a common hardware and software base. The common software lives in the SharedLibrary project, incorporated by reference into each of the individual projects. The hardware is somewhat common, but use different pin assignments and hardware availability.

Individual projects have their own directory and include a single Arduino app, consisting mainly of:

* A top-level .ino file.
* Config.h defines the release.
* Optional project-specific files containing functions specific to each particular system.

Several defines in Config.h control the presence or absence of major sub-systems:

|  |  |
| --- | --- |
| ONE\_SHOT\_COMMAND | Presence or absence of *WaveformTriggered* and *OneShotCommand*, the latter which depends on the definition of a button input ONESHOT\_BUTTON, and an led output ONESHOT\_LED |
| VARIABLE\_COMMANDS | variable waveforms based on Analog inputs, which in turn rely on definitions of 3 Pots, P1, P2, P3 |
| ENABLE\_DOWNLOAD\_COMMANDS | Downloadable waveforms [WIP] |

And the following to identify a particular product/release, visible in the ***\*idn?*** query:

|  |  |
| --- | --- |
| ASSEMBLYNAME | Name of the app |
| VERSION | Release version |
| MODEL | "Teensy 3.1" |
| DATE | Release date |

# Current Status, 5-August-18

1. New repo, with one folder per target app, each with all the original files.
2. No branches or significant history in ***TeensyGenerators***; all branches and history are in ***TeensyGenerators*** or ***Arduino*** repos.
3. ***Modulator*** and ***SigGen*** have been refactored to share a common ***SharedLibrary***, with minimal files in each project.

# TODO

1. Need to consolidate Teensy.[ch] refactoring from Modulator into SigGen.
2. Eventually want to end up with single VisualStudio solution, with one project for each product.
3. Teensy Tester implementation
4. Have several tags/branches represented by Zip files. Eventually want to merge that information into new repo.
   * This is not vitally important; old history can remain forever in older repos.
   * Top priority is ***CellX 1.1.0.zip*** which includes some promising new work that never was tested/finished.