# Functional Requirements

* The generation system shall accept a configuration file detailing parameters and functions, and generate a UI in HTML and CSS to access the functionality and parameters described in the input configuration file.
* The generation system shall accept a configuration file detailing parameters and functions, and generate C/C++ code to handle user input received through a Mongoose server.
* The generation system shall accept a configuration file detailing parameters and functions, and expose a C API to access the functionality and parameters described in the input configuration file. The C API shall also expose a callback/observer mechanism in order to notify users of the API of parameter changes.
* (stretch) The generation system shall accept a configuration file detailing parameters and functions, and generate documentation describing the REST and C APIs it generates.
* The executing system shall provide a way to enable custom functions to be exposed via the REST and C APIs that are not described by the input configuration file.

# Non-functional Requirements

* The code generated by the generation system shall interface with a Mongoose C/C++ web server.
* The code generation system must be cross-platform.
* The Mongoose C web server shall run in an embedded device.
* The REST and C APIs must expose the same functionality
* Everything that can be accessed through the REST API will be accessible by the UI, with the exception of the custom functions defined in the configuration file

# Performance Requirements

* (stretch) The executing system shall allow for the creation and authentication of users.

# Security Requirements

# Questions:

* The configuration file, should it be doable by hand, or through some other external (beyond the scope of this system) system? (In other words, is it enough to describe how a proper configuration file is made, and let something/someone else generate proper configuration files?)
* What license should we put our work into, if we put it in github? It needs to be OSS, but which (GPL2, GPL2 or later, GPL3, BSD 3 or 4 clause, MIT, etc.)?