

**CG1112 Engineering Principle and Practice II**  
Semester 2 2018/2019  
**Project Specification: Bonus Addendum**  
**[Version: 4<sup>th</sup> April, 2019]**

This document is to clarify the evaluation of bonus features for the project. There is no change to the original features in the specification, i.e.:

- Environment Mapping and Navigation = 80%
- Colour Object Detection = 15%
- Power Saving = 5%

In addition, you can consider the following bonus features:

<b>Bare Metal Programming – Bonus 3%</b>
You can use bare metal programming for Arduino. Minimally, you need to have at least 50% of the Arduino code written in bare metal to qualify.
[Suggestion] It is more prudent to complete the project requirement using the simpler Arduino Sketch libraries before converting selected portion into bare metal. Use Git “religiously” so that you can always have a backup if something goes wrong.

<b>TLS Programming – Bonus 2%</b>
You need to use the library provided in Week 11 Studio 1 to implement a TLS server + client on your laptop and Pi respectively to qualify.

Note the bonus features are **entirely optional**. Please plan your time properly and build your project incrementally. Complete the main functionality before the additional / bonus features.