**YEAR3 BEng/MEng Project Risk Register**

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| **Risk Number** | **Description of Risk** | **Mitigation of Risk** | **Risk evaluation (L/M/H)** | **Chance of risk occurring (L/M/H)** | **Date risk expired** |
| **1** | **Uncomprehensive understanding of the bottom-level system resulting in bad redesign of top-level system, which means the bottom-level system may not be fully compatible with the rebuilt top-level system** | **Read through the bottom-level source code and have a solid understanding of the bottom level system if possible in addition to use eclipse environment to help build up the understanding of data structure, such as class inheritance tree.** | **M** | **H** |  |
| **2** | **Bugs in the previous delivered system** | **Never trust the previous work and build up a testable code structure with assertions, and make sure have an understanding of code written to debug if the bug is in the current work or the previous work** | **M** | **H** |  |
| **3** | **Board may not be functioning** | **Understanding the hardware design, and see if there is a way can fully test the board. If yes, test it, if no, test the vital functionality.** | **H** | **L** |  |
| **4** | **Testing phase may take longer than expected** | **Pushing the project forward and make sure there is some time to remind for more comprehensive testing.** | **L** | **H** |  |
| **5** | **Design may need to be amended due to bad performance** | **Having a solid understanding of the aim and background before implementing.** | **H** | **L** |  |
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**Notes:**

* Make a note of all risks that are associated with the project that may have an impact on the outcomes of the project
* Evaluate the impact of the risk on the overall aim of the project as low/medium/high, should it occur.
* Evaluate the chance that the risk could occur as low/medium/high.
* Think of methods that can be used to reduce the impact of the risk, should it occur.
* If the risk expires, make a note of the date.

**Examples of risk**

* **Circuit board does not perform due to poor fabrication**. This could be a high impact risk as no test measurements could result. The chance of this occurring may be low to high depending on the detail of the circuit board. You may need to take advice from workshop staff to what are the limitations of their systems. The mitigation to this may be that more than 1 board is manufactured (just in case) or extra time is built in to the project plan to manufacture another.
* **Simulations do not match measurements**. This may be a medium impact depending on how severe the deviations are on the overall performance of the device. The chance of this occurring may be difficult to assess as a good understanding on the limitations of both the simulation and the measurement technique may be required. The mitigation may be that simulations and measurements are carried out on known objects from literature or previous projects.

The aim of this exercise is expose you to the process of risk management as it is a major aspect of all industrial projects.