ASSESSMENT GUIDE FOR ASSIGNMENT 3 – PROTOTYPE

1. **Innovation and originality of the concept - 5%**

The prototype concept is original, demonstrates a unique approach to the problem, and exhibits some level of creativity. Your solution should have some elements of creativity. It doesn't have to be a new product, but it should be more than a mere replication of an existing product.

2. **Design process – 22%**

The design process is thoroughly documented and articulated, including detailed sketches, tables, diagrams, and/or flowcharts. Challenges are comprehensively addressed with way you have overcome them.

3. **Effective use of resources – 5%**

Good use of the kit sensors and parts with a clear rationale for material choices. Use of resources online and from the Makerspace to complete the design, development, and build of the prototype.

4. **Prototype build process – 10%**

The build process is well documented, describing in detail each step including Arduino programming, 3D printing, and any other relevant processes. Difficulties are thoroughly explained with effective solutions.

5. **Presenting the prototype – 55%**

Functionality, enclosure, and reliability of the prototype 45%
Present your prototype showing its functionality and ensure that all the wires and Arduino are protected in an enclosure. You want to show that the prototype is reliable, and the performance is reproducible.

Test plans and results 10%
Describe how you plan to test the prototype and how the test is directly related to the prototype's intended use. You also need to provide some test results on the performance.

6. **Overall report writing, format, and layout – 3%**

Well written report with clear and concise statements. Excellent grammar and punctuation. Proper report format (title page, group member names, date, readable font, headings for each section, ..). All external resources used cited with any citation style.

7. **BONUS: Exceeded overall expectations (3 marks bonus)**

Go over and beyond in the design, development, and build of the prototype.

TOTAL of 100 marks