Annex 8 - Report Rubric

1. Content

Abstract
Professional publications in science and engineering journals start with an abstract. This is a brief description of the major points covered in the paper, including context, solution, and practicality. The abstract has a strict limit on length.

2 = Abstract is concise and complete. All essential points covered in less than 150 words.
1 = One or two major points are omitted, or between 150–200 words.
0 = No abstract is provided, or it exceeds 200 words.

Requirements
The following measurements are required: 1) musical range of instrument, 2) sound intensity level at 1 m, 3) sound energy produced, 4) instrument’s energy efficiency (ratio of sound energy produced to amount of energy transferred to the instrument), 5) harmonic spectrum, and 6) stability.

3 = Report includes measurements that go beyond those required. All data plausible.
2 = All required data reported and values are plausible.
1 = One or two measurements missing OR data not plausible
0 = More than two measurements missing OR data not plausible.

Correctness
Content and data analysis are correct, both qualitatively and quantitatively.

2 = No mistakes and no misconceptions
1 = A few (1–3) incorrect or inaccurate statements AND/OR misconceptions evident
0 = Many (more than 3) incorrect or inaccurate statements AND misconceptions evident

Contributions
Contains descriptions of contributions of each member.

2 = Complete descriptions both building of machine and writing of report.
1 = Partial descriptions of either building of machine or writing of report
0 = Partial descriptions of both building of machine and writing of report OR one aspect missing

2. Mechanics

Flow/Organization
Report has clear structure and flows well from one section to another. The reader does not have to flip back and forth from one section to another to understand the content.

3 = Meets expectations (see 2); would require no editing for publication
2 = Well organized and structured, good flow from one section to another
1 = Attempt at organization but poorly structured overall, little/no thought to flow
0 = Totally disorganized (no sections identified and poor flow throughout)

Use of Graphics
Graphics are used effectively to clarify and lend support to content. They should be clear, well labeled, and relevant. Extraneous figures can impede the flow of the paper. However, some figures are necessary to adequately explain your reasoning. (For example, you should include a diagram of your instrument.)

3 = Meets expectations (see 2) and figures used in novel and unexpected ways
2 = All figures are clear and well labeled. No figures are omitted or extraneous.
1 = One or two figures unclear or poorly labeled. Some figures omitted or extraneous.
0 = More than two figures unclear or poorly labeled. Some figures omitted or extraneous
Citations
Your report must be well documented and referenced. The goal is to provide evidence for any non-obvious claim from another source (e.g., “There are only 200 white tigers on earth [1]”). These citations should follow the convention outlined in the syllabus.

2 = Complete and thorough
1 = A few (1–3) statements are unreferenced, undocumented, or poorly cited.
0 = Several (4 or more) of statements are unreferenced, undocumented, or poorly cited.

Notation
All calculations, figures, and tables should adhere to notation and unit standards. For example, values are accompanied by appropriate units, and variables are clearly identified.

2 = No mistakes or missing units
1 = Several (1–3) notational mistakes or missing units
0 = Many (more than 3) mistakes or missing units

Timeliness
Your report must be submitted by the deadline: December 9, 11:59 pm.

2 = By the deadline
1 = No more than one day late
0 = More than one day late

Length
Your report may not exceed 7000 words, minus allowances for equations and figures (consult the project brief for details).

2 = < 7000
1 = < 8000
0 = > 8000