**MP2 STIRLING ENGINE ASSEMBLY PROJECT NAME: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ SECT: \_\_\_\_\_**

**Assemble the Stirling Engine from the zipped part files on the course webpage.  This will be worth 20 points related to the following deliverables: (A) Work-in-progress day 2 check, (B) assembly model and renderings, (C) assembly and sub-assembly drawings, and (D) part drawing/animation. Part A is scored based on an in-class check on day two of the project. The remaining parts B-D will be turned in together on the assignment due date with this partially-graded cover page.**

Total Score:

 /20

**A. Work-in-Progress items ready to demonstrate at start of class on 3/23 (to be checked and initialed by a mentor or instructor)** none (0) partial (1/2) complete (1)

Part A Sub-Score:

 /5

Mentor/Grader Initials: \_\_\_\_\_\_

1. Files stored in your personal “01\_Submitted”

folder on OneDrive \_\_\_\_\_\_ \_\_\_\_\_\_ \_\_\_\_\_\_

1. Acceptable file naming (for sub-asm 4 parts) \_\_\_\_\_\_ \_\_\_\_\_\_ \_\_\_\_\_\_
2. Use of 4 sub-assembly models (2pts) \_\_\_\_\_\_ \_\_\_\_\_\_ \_\_\_\_\_\_
3. Main assembly composed from sub-asms \_\_\_\_\_\_ \_\_\_\_\_\_ \_\_\_\_\_\_

**B. Assembly Model/Rendering Checklist
\_\_\_ consists of 4 sub-assemblies (base, flywheel, displacement piston, power piston) from in zipped parts file
\_\_\_ correctly renamed parts in subassembly 4 (e.g., “04-01\_SE”) and purchased parts folder (e.g., “SP-01\_SE”)
\_\_\_ summary of assembly modeling process scheme/process (w/ illustrative screenshots and descriptive captions)**

**\_\_\_ lessons learned about assembly modeling**

Part B Sub-Score:

 /5

**Above and Beyond (Exemplary)** (1/2 pt each)

\_\_\_ exceptional organization and neatness **\_\_\_ accurate replication of Stirling Engine and attractive renderings (in color)**

**C. Assembly and Sub-Assembly Drawings (combined pdf) Checklist**
\_\_\_ drawings use ME template correctly (w/ dynamically-linked title block, BOM, & Rev Table checked by a peer)
\_\_\_ pdf packet includes effective main assembly drawing (w/ proper referencing of sub-assemblies in BOM)
\_\_\_ pdf packet includes effective sub-assembly drawings (w/ proper referencing of parts by number in BOM)
\_\_\_ lessons learned about creating assembly drawings

Part C Sub-Score:

 /5

**Above and Beyond (Exemplary)** (1/2 pt each)

\_\_\_ informative/clean use of exploded view

\_\_\_ effective use of explode lines in explode views

**D. Part Drawing & Animation Checklist**

Part D Sub-Score:

 /5

\_\_\_ shop-ready drawing of Bearing Plate (in Flywheel sub-assembly)

\_\_\_ lessons learned about creating shop-ready part drawings and animations
\_\_\_ video saved as mp4 or wmv format and stored in personal folder on shared drive

Point Deductions

 \_\_\_ No cover page

 \_\_\_ Not a .doc/.docx

 \_\_\_ Incorrect filename

 (“MP2\_first last.doc”)

(employs at least two independent motions and gives insight about normal operation) (1.5 pts)

\_\_\_ **appropriate application of materials to all parts** (1/2pt)

**Above and Beyond (Exemplary)** (1/2 pt each)

\_\_\_ accurate, clean, and complete shop-ready drawing

**\_\_\_** exceptional animation (provides additional insight to operation, assembly, etc.)