

# AME 3623: Project 3 Group Grading Rubric

April 3, 2013

## Checkpoint: 10 points

- (10) All required parts of the checkpoint have been demonstrated, including: testA(), testB() and (at least) the implementation of pd\_control().
- (5) One component is missing.
- (0) More than one component is missing.

## Implementation: 30 points

### Circuit: 4 points

- (4) The circuit includes all required components (properly connected), including: power amplifier board and the fans.
- (2) One component is missing or not connected properly.
- (0) No components are connected properly.

### set\_lift\_direction(): 4 points

- (4) Fully meets the given specification.
- (2) Fails to meet one aspect of the specification.
- (0) Does not meet the given specification.

### set\_lift\_magnitude(): 2 points

- (2) Fully meets the given specification.
- (1) Fails to meet one aspect of the specification.
- (0) Does not meet the given specification.

### set\_lateral\_magnitudes(): 2 points

- (2) Fully meets the given specification.
- (1) Fails to meet one aspect of the specification.
- (0) Does not meet the given specification.

### testA(): 4 points

- (4) Fully meets the given specification.
- (2) Fails to meet one aspect of the specification.
- (0) Does not meet the given specification.

### testB(): 4 points

- (4) Fully meets the given specification.
- (2) Fails to meet one aspect of the specification.
- (0) Does not meet the given specification.

### pd\_control(): 5 points

- (4) Fully meets the given specification.

- (2) Fails to meet one aspect of the specification.
- (0) Does not meet the given specification.

**main(): 5 points**

- (4) Fully meets the given specification.
- (2) Fails to meet one aspect of the specification.
- (0) Does not meet the given specification.

**Demonstration/Presentation: 30 points**

**testA(): 3 points**

- (3) The testA() function performs the sequence as specified (implying that the underlying functions are working properly).
- (0) testA() does not function properly.

**testB(): 3 points**

- (3) The testB() function performs the sequence as specified (implying that the underlying functions are working properly).
- (0) testB() does not function properly.

**PD controller works and is well-tuned: 5 points**

- (5) PD controller keeps hovercraft oriented toward its goal orientation as it is moving forward.
- (2) PD controller works, but is not well tuned.
- (0) PD controller does not work.

**main(): 4 points**

- (4) The main() function properly switches between moving forward and braking.
- (0) The main() function does not work properly.

**Presentation: 15 points**

- (15) Presentation contains all required components, including: a statement of the team member responsibilities, including personal components; the logic of: `set_lift_direction()`, `set_lift_magnitude()` and `pd_control()`; and the circuit diagram.
- (11) One component is missing.
- (5) More than one component is missing.
- (0) No presentation.

**Documentation: 30 points**

**Function header documentation: 15 points**

- (15) All functions are documented with a high-level description, a description of each of the parameters, and a description of the return value (where appropriate).
- (10) One function is not documented properly.
- (5) Multiple functions are not documented properly.
- (0) Function header documentation is not given.

**In-line documentation: 15 points**

- (15) All functions include appropriate in-line documentation. (“appropriate” means that you capture the logic of a line of code or group of lines)
- (10) One function is missing in-line documentation.
- (5) Multiple functions are missing in-line documentation.
- (0) No in-line documentation is given.