CSCI 445 — Task-Sheet for Lab 8 & 9

Team Members: _____

Robot ID: _____

Question:	1.	4.1	4.2	5.1	5.2	Total
Points:	10	108	50	20	10	198
Score:						

NOTE: The points roughly reflect our estimate on how long each task should take.

1. **Prelab** [TA Signoff]

    (a) (5 points) Write down the equations or pseudocode of the functions you will use for the three functions outlined in Part 3 (Movement, Sensing, Estimation).

    (b) (5 points) Write down any parameters you will need in your calculations (variance on motion, sonar measurements). How did you determine these values?

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    _____

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    _____

4.1. Particle Filters with Manual Motion Control (Simulation)

   (a) (100 points) Demonstration [TA Signoff]

   (b) (8 points) How much does the robot need to move and sense to localize itself? Does that depend on any factors? [TA Signoff]

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4.2. Particle Filters with Manual Motion Control (Robot)

   (a) (50 points) Demonstration [TA Signoff]

5.1. Particle Filters with Automatic Motion Control (Simulation) [TA Signoff]

   (a) (4 points) Algorithm: [TA Signoff]

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   _____

   (b) (1 point) Achieved Accuracy & Time-to-finish: [TA Signoff]

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   (c) (15 points) Demonstration [TA Signoff]

5.2. Particle Filters with Automatic Motion Control (Robot)

   (a) (5 points) Achieved Accuracy & Time-to-finish: [TA Signoff]

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   (b) (5 points) Demonstration [TA Signoff]