

MASSACHUSETTS INSTITUTE OF TECHNOLOGY
Department of Electrical Engineering and Computer Science
6.01—Introduction to EECS I
Spring Semester, 2008

NanoQuiz Week #1 (sections 1 and 2)

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This quiz is due promptly 15 minutes after the start of the lab period.

You may use the weekly assignment handout, but the quiz is otherwise closed book and closed computer. For programming problems, we won't penalize you for minor syntactic bugs: we're going only to read your answers, not run them.

1. Write a procedure `mean` that takes as its input a list of numbers (of any length) and returns the mean.

2. Today's design lab writeup describes how we will represent robot behaviors as a procedures that input sensor data and return actions. The writeup also describes how we represent an action as a list containing a name, along with translational and rotational velocities, for example, the following actions are already defined:

```
stop = ["stop", [0,0]]  
go = ["go", [speed,0]]  
# and so on
```

Suppose you are already given a procedure called `senseAhead`, where `senseAhead(sensorValues)` will return `True` if the robot senses something in front of it, and returns `False` otherwise. Using this, implement a behavior that will make the robot go forward until it senses something in front of it and then stops.

```
def moveForward(sensorValues):  
# complete the definition ...
```