

**ECE564/565, Fall 2019, Fundamentals of Autonomous Robots/Lab.**

**HW#1**

**Due on: Thursday, September 5<sup>th</sup>, in class.**

**Problem 1: (15 Points)**

Name the three robotic paradigms, and draw the relationship between the primitives.

**Problem 2: (10 Points)**

List three problems with teleoperation.

**Problem 3: (15 Points)**

Describe the difference between telepresence and semi-autonomous control.

**Problem 4: (15 Points)**

List the six characteristics of applications that are well suited for teleoperation.

**Problem 5: (15 Points)**

List advantages and disadvantages of the Hierarchical Paradigm.

**Problem 6: (15 Points)**

Explain “shared control”.

**Problem 7: (15 Points)**

What are the two improvements to a classic teleoperation?

And what do they (improvements) aim for?