

# Memorandum

**To:** David Trevas

**From:** Sumo Robot Team-D, Rene Diyarza, David Feetterer, Yousef Alghareeb, Jose Villegas

**Date:** September 20, 2016

**Re:** ME 476C - Background Report

---

The R/C robot will be a sumo robot that is remotely controlled. The weight for this class, the robot must not exceed 3 kg and not be larger than 20 cm for width or length while height is unlimited. Remote controls must be digitally paired and must not have a frequency of 75mhz. The tournament official will call the start of the match. Winning the match can be determined by the judges call by the amount of Yuhkoh points that were received.

The autonomous class requires the team to construct a robot that works without a controller. The main goal of the robot is to wrestle in a sumo ring against another opponent. The robot should not contain any sharp edges(radius not greater than 0.005 inches) in order to not damage the ring but it has to be durable enough to not break into pieces. Also, since it is an autonomous it should has line's and opponent's sensors so it would be able to perform orders when they are detected. Just like the R/C robot, the mass of the robot should equal or less than 3 kg.

More research is required to better understand what is asked for in the bartending robot. From the description given on *ROBOGAMES*, only one robot is required to compete in the competition. The robot control has to autonomous. At the minimum, the robot is required to prepare any mixed drink with at least one spirit and one mixer. The competition will be scored based on aesthetics, style, delivery, and versatility.