

## ME 328 Machine Design, Design Project

### Problem Statements:

**Overall problem:** Design a transmission for a winch that will be used to pull a plow in rural Uganda.

**Phase 1:** Demonstrate ability to select a transmission ratio to achieve specified force and/or speed requirements. To pull the plow, the motor power shall be set to “full power” (100% speed). Speed of the plow will be affected by the motor performance, the transmission, and the plow forces.

**Phase 2:** Demonstrate ability to scale-up lessons learned in Phase 1 by assembling and testing a larger-scale transmission to meet a specified force and/or speed requirement.