The Goal

To create a crane created with two servo motors in a pan tilt configuration and a stepper motor winch.
Purpose

To review and expand upon:

- Analog to digital
- PWM system
- State Machines
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<td>2 Servo Motors</td>
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Schematic
Initialize variables
Delay loop function milliseconds
Delay loop function microseconds
Function: ButtonPress
    Calculate int N based off of calculate distance variable
    for N amount of times drop line
    Delay
    for N amount of times reel line up

Set DDRT for output
Setup DDRM for input
Setup PWM for PT3 and PT4.
Setup A/D Converter for two channel conversions AN02 and AN03
Loop forever:
  Initialize state1 to 1
  Initialize state2 to 0

  while state1 equals 1 and state2 equals 0 do the following
    Get value from A/D converter from AN02 and setup PT4 Duty Cycle
    Set calculate distance equal to the PWM Duty 4
    Get value from A/D converter from AN03 and setup PT3 Duty Cycle

  while state2 equals 1 and state1 equals zero do the following
    call function button press
    Set state1 equal to 1 and state2 equal 0
Challenges

- Providing counter weight to stabilize movement
- Connecting the Easy-Driver
- Using PT3 directly instead of hardwiring PT5 to PT3
- Calculating distance for fishing line to drop
  - dependant on height/angle of boom
Questions?