# Servocontrol

## PWM vs PPM

* Datasheet says ppm but servos actually use pwm
* They reference the Arduino servo library which uses pwm

## Rpi.gpio vs pigpio

* Hardware vs software pwm
  + Pigpio daemon
* Calculating angle of servo given the positive pulse width
  + Servo are actually able to turn 200 degrees but we only use 180 as the used function cant take in a high enough positive pulsewidth as input to make it spin all 200 degrees (only goes to 2500 microseconds which is lower than the maximum for the servo) <https://abyz.me.uk/rpi/pigpio/python.html#set_servo_pulsewidth>

## Rosnode

* Twist messages which contain linear x and y velocities
* Create class instance for both vertical and horizontal controller

# Camerafeed

## Raspberrypi camera

* picamera and PiRGBArray vs PiCamera2 vs CV2
  + Ros and Debian 10 vs 11
  + 64 bit vs 32 bit

## Rosnode

* Image vs compressed image
* Picture size and loop rate

# Ultrasound feed

## Rosnode

* Image vs compressed image
* Picture size and loop rate

# General trouble

* Export Ros\_IP
* Wifi bandwith