

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 bandwidth