

```

465 RPM_0 = readEncoderZ(encoder0PinZ); // Read Encoder pin Z if RPM is in "high range" (Reads for both encoders)
466 RPM_1 = readEncoderZ(encoder1PinZ); // Read Encoder pin Z if RPM is in "high range" (Reads for both encoders)
467 }*/
468
469 RPM_0 = readEncoderZ(encoder0PinZ); // Read Encoder pin Z if RPM is in "high range" (Reads for both encoders)
470 RPM_1 = readEncoderZ(encoder1PinZ); // Read Encoder pin Z if RPM is in "high range" (Reads for both encoders)
471 #if DEBUG
472     Serial.print("RPM 0 =");
473     Serial.print(RPM_0);
474     Serial.print(".....RPM 1 =");
475     Serial.println(RPM_1);
476 #endif
477 //RPM_0_Last = RPM_0;
478 //RPM_1_Last = RPM_1;
479
480 //((insert diff code here)
481
482 throttle_in_left = throttle_in;
483 throttle_in_right = throttle_in;
484
485 if((controlScheme == 1) && (loopCount > 0)){
486     differential(Steering, throttle_in);
487 }
488
489 int leftSpeed = map(throttle_in_left, minThrottle, maxThrottle, 0, 1023);
490 int rightSpeed = map(throttle_in_right, minThrottle, maxThrottle, 0, 1023);
491
492 if( leftSpeed < 5 ){ // Error checking code to ensure we do not have throttle spikes at the extremities
493     leftSpeed = 0;
494 }
495 if ( leftSpeed > 1023 ){
496     leftSpeed = 1023;
497 }
498 if ( rightSpeed < 5 ){
499     rightSpeed = 0;
500 }
501 if( rightSpeed > 1023 ){
502     rightSpeed = 1023;
503 }
504
505 analogWriteResolution(Res);
506 analogWrite(leftMotor, leftSpeed);
507 delay(ADC_DELAY/5);
508 analogWriteResolution(Res);
509 analogWrite(rightMotor, rightSpeed);
510 delay(ADC_DELAY/5);
511
512 #if DEBUG
513     #if SPEED
514         Serial.print("Left Motor Voltage "); //Debug Statements ~ visual data
515         Serial.println(leftSpeed);
516         Serial.print("Right Motor Voltage");
517         Serial.println(rightSpeed);
518     #endif
519 #endif
520
521 loopEnd = millis();
522 loopCount = loopCount + 1;
523 delayMicroseconds(5);
524 }

```