```
// Steering Declarations
int steeringPin = A10; // Steering Pot Signal
int steeringMax = 600;   //THESE VALUES NEED TO BE MEASURED AND ENTERED CORRECTLY
int steeringMidpt = 400;  //IDEALLY WE WRITE CALIBRATION CODE FOR THESE VALUES
int steeringMin = 200;
int Lr = 35;                      //35 inches from center to center on rear wheels
int minTurnRadiusRight = 148;  //Minimum turn radius in inches
int minTurnRadiusLeft = 244;
int leftSteerBuffer = -75;
int rightSteerBuffer = 75;

// Encoder Declarations
 //CHECK THESE PINOUTS!!!!!
 int encoder0PinA = 25; // Encoder A2
 int encoder0PinB = 29; // Encoder A1
 int encoder0PinZ = 33;
 int encoder1PinA = 23; // Encoder B2
 int encoder1PinB = 27; // Encoder B1
 int encoder1PinZ = 31;
 int maxRPM = 20;
 int RPM_0_Last = 0;
 int RPM_1_Last = 0;

 //PID control Variables
 int Kp = 10;
 int Ki = 1;
 int Kd = 0;
 long loopStart = 0;
 long loopEnd = 5000; //Need to tune this value for first run
 long dT = 0;

 double control = 0;
 double error = 0;
 double controlPrev = 0;
 double errorPrev = 0;

 //Encoder read variables
 int encoderPos = 0;
 int encoderPinALast = LOW;
 int encoderSampleTime = 125;  //Sample time for the encoders (in milliSeconds)
 int RPM_0 = 0;
 int RPM_1 = 0;

 double steerLast = 0;

 //Pack voltage variables
 int minPackVoltage = 720;  //Integer value corresponding to roughly 9.65 volts (safe operating LiPo voltage)

 // Extra Pins
 int PwrIn = A9;  //Pin to read the battery pack nominal voltage
 int LEDPwr = 11; //Pin to control the "power to arduino" LED
 int SDPin = 10;
 int PullDownPin = 9;          // Press Sensor pin
 int LEDPin = 8;           //Red LED in digital pin 8 with resistor in series.
//--------------------------------------------------------------------------------
```