#!/usr/bin/env python

# -\*- coding: utf-8 -\*-

####################################################################

# 프로그램명 : xycar\_motor\_a2.py

# 작 성 자 : 자이트론

# 생 성 일 : 2020년 07월 23일

# 본 프로그램은 상업 라이센스에 의해 제공되므로 무단 배포 및 상업적 이용을 금합니다.

####################################################################

import rospy, rospkg

import time

import serial

import threading

from xycar\_motor.msg import xycar\_motor

from ackermann\_msgs.msg import AckermannDriveStamped

import sys

import os

import signal

def signal\_handler(sig, frame):

os.system('killall -9 python rosout')

sys.exit(0)

signal.signal(signal.SIGINT, signal\_handler)

angle\_offset = 0.0

angle\_ratio = 0.0068

speed\_ratio = 0.1

def auto\_drive(steer\_val, car\_run\_speed):

global ackerm\_publisher

ack\_msg = AckermannDriveStamped()

ack\_msg.header.stamp = rospy.Time.now()

ack\_msg.header.frame\_id = ''

ack\_msg.drive.steering\_angle = steer\_val

ack\_msg.drive.speed = car\_run\_speed

ackerm\_publisher.publish(ack\_msg)

def callback(data):

global angle\_offset, ackerm\_publisher, angle\_ratio, speed\_ratio

data.angle = max(-50, min(data.angle, 50))

data.speed = max(-50, min(data.speed, 50))

Angle = float(data.angle) \* (-angle\_ratio)

Angle += angle\_offset \* angle\_ratio

Speed = float(data.speed) \* speed\_ratio

auto\_drive(Angle, Speed)

def start():

global angle\_offset, ackerm\_publisher

rospy.init\_node('xycar\_motor')

angle\_offset = rospy.get\_param("~angle\_offset")

rospy.Subscriber("xycar\_motor", xycar\_motor, callback)

ackerm\_publisher = rospy.Publisher('ackermann\_cmd', AckermannDriveStamped, queue\_size=1)

rospy.spin()

if \_\_name\_\_ == '\_\_main\_\_':

start()