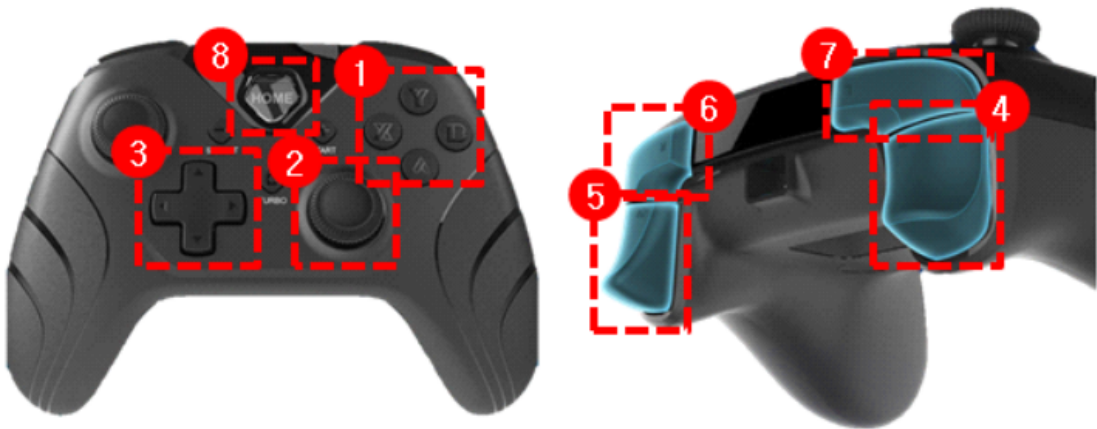
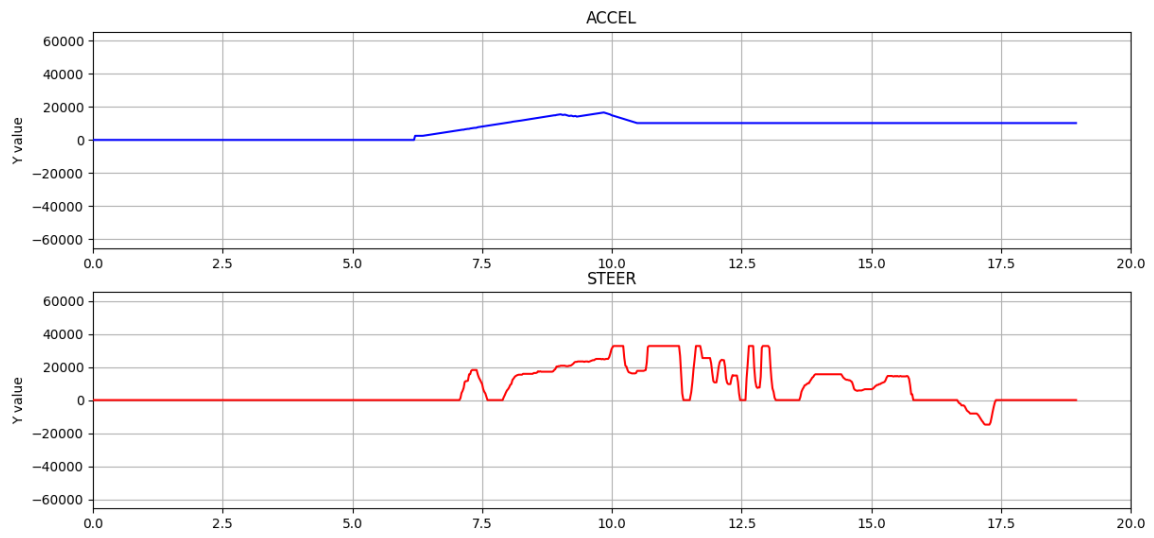


셔틀 유선 컨트롤러 모듈 개발

- 상세 설명
 - <https://github.com/dj2261/joystick-serial>
 - <https://github.com/dj2261/joystick-res>
- 목적
 - 셔틀 유선 컨트롤러 모듈 개발
- 개요
 - 위더스 셔틀 유선 컨트롤러 모듈 프로그래밍
- 개발 비용 : 약 10만원 (X-box joystick, Raspberry Pi 3 Model B+, 아답터)
- 개발 일정
 - 2020년 6월 1일 ~
- 개발 언어 : Python (version 3.0)
- 개발 환경 : Raspbian
- 개발 내용
 - 라즈베리파이 Serial 통신 프로그래밍
 - 조이스틱 Input Digital/Analog Data 제어
 - 크루즈 컨트롤 개발
 - 라즈베리파이 부팅 Shell Script 개발
 - 기능
 1. 프로그램 자동시작 등록
 2. package 자동 설치
- 차년도계획
 - 조종기 민감도 조정
 - 라즈베리파이 에러 (꺼짐 현상) 해결

```
dj2in@djin-Legion: ~/Mygit/joystick-serial
파일(F) 편집(E) 보기(V) 검색(S) 터미널(T) 도움말(H)
Cruise : False current_val : 29375 fitting_steel_val : -32700 packet : [83, 84, 88, 0, 0, 0, 0, 114, 0, 0, 1, 128, 68, 128, 84, 183, 13, 10]
Cruise : False current_val : 29375 fitting_steel_val : -16130 packet : [83, 84, 88, 0, 0, 0, 0, 114, 0, 0, 2, 193, 254, 192, 86, 243, 13, 10]
Cruise : False current_val : 29400 fitting_steel_val : 0 packet : [83, 84, 88, 0, 0, 0, 0, 114, 0, 0, 0, 0, 88, 114, 13, 10]
Cruise : False current_val : 29450 fitting_steel_val : 0 packet : [83, 84, 88, 0, 0, 0, 0, 115, 0, 0, 0, 0, 90, 115, 13, 10]
Cruise : False current_val : 29450 fitting_steel_val : 19220 packet : [83, 84, 88, 0, 0, 0, 0, 115, 0, 0, 22, 75, 20, 75, 92, 51, 13, 10]
Cruise : False current_val : 29500 fitting_steel_val : 32700 packet : [83, 84, 88, 0, 0, 0, 0, 115, 0, 0, 255, 127, 188, 127, 94, 44, 13, 10]
Cruise : False current_val : 29525 fitting_steel_val : 32700 packet : [83, 84, 88, 0, 0, 0, 0, 115, 0, 0, 255, 127, 188, 127, 96, 44, 13, 10]
Cruise : False current_val : 29550 fitting_steel_val : 32700 packet : [83, 84, 88, 0, 0, 0, 0, 115, 0, 0, 255, 127, 188, 127, 98, 44, 13, 10]
Cruise : False current_val : 29550 fitting_steel_val : 32700 packet : [83, 84, 88, 0, 0, 0, 0, 115, 0, 0, 255, 127, 188, 127, 100, 44, 13, 10]
Cruise : False current_val : 29575 fitting_steel_val : 32700 packet : [83, 84, 88, 0, 0, 0, 0, 115, 0, 0, 255, 127, 188, 127, 102, 44, 13, 10]
Cruise : False current_val : 29600 fitting_steel_val : 32700 packet : [83, 84, 88, 0, 0, 0, 0, 115, 0, 0, 255, 127, 188, 127, 104, 44, 13, 10]
Cruise : False current_val : 29625 fitting_steel_val : 32700 packet : [83, 84, 88, 0, 0, 0, 0, 115, 0, 0, 255, 127, 188, 127, 106, 44, 13, 10]
Cruise : False current_val : 29675 fitting_steel_val : 32700 packet : [83, 84, 88, 0, 0, 0, 0, 115, 0, 0, 255, 127, 188, 127, 108, 44, 13, 10]
Cruise : False current_val : 29700 fitting_steel_val : 32700 packet : [83, 84, 88, 0, 0, 0, 0, 116, 0, 0, 255, 127, 188, 127, 110, 45, 13, 10]
Cruise : False current_val : 29725 fitting_steel_val : 32700 packet : [83, 84, 88, 0, 0, 0, 0, 116, 0, 0, 255, 127, 188, 127, 112, 45, 13, 10]
Cruise : False current_val : 29750 fitting_steel_val : 15600 packet : [83, 84, 88, 0, 0, 0, 0, 116, 0, 0, 249, 66, 240, 60, 114, 213, 13, 10]
Cruise : False current_val : 29775 fitting_steel_val : 0 packet : [83, 84, 88, 0, 0, 0, 0, 116, 0, 0, 0, 0, 116, 116, 13, 10]
Cruise : False current_val : 29800 fitting_steel_val : 0 packet : [83, 84, 88, 0, 0, 0, 0, 116, 0, 0, 0, 0, 118, 116, 13, 10]
Cruise : False current_val : 29825 fitting_steel_val : 0 packet : [83, 84, 88, 0, 0, 0, 0, 116, 0, 0, 0, 0, 120, 116, 13, 10]
Cruise : False current_val : 29850 fitting_steel_val : 0 packet : [83, 84, 88, 0, 0, 0, 0, 116, 0, 0, 0, 0, 122, 116, 13, 10]
Cruise : False current_val : 29875 fitting_steel_val : 0 packet : [83, 84, 88, 0, 0, 0, 0, 116, 0, 0, 0, 0, 124, 116, 13, 10]
Cruise : False current_val : 29900 fitting_steel_val : 0 packet : [83, 84, 88, 0, 0, 0, 0, 116, 0, 0, 0, 0, 126, 116, 13, 10]
Cruise : False current_val : 29925 fitting_steel_val : -2970 packet : [83, 84, 88, 0, 0, 0, 0, 116, 0, 0, 104, 244, 102, 244, 128, 42, 13, 10]
```



- 1) 4륜조향 모드 설정
- 2) 조향 명령
- 3) 변속
- 4) 가속
- 5) 감속
- 6) 비살정지 동작
- 7) 비살정지 해제
- 8) 조종기 상태