A Member of YUDO

작성 부서 /	로봇제어팀
작 성 자 /	이인재
분류 번호 /	PJ-240903
작성 일자 /	2024.09.11

결 재		
작성	검토	승인

☐ Promotion ☐ Test Report ☐ Trouble Shooting ☐ 교육 자료 ☐ TF업무
☐ 통계 분석 ☐ 업무 보고 ■ 업무(자료) 공유 ☐ 출장 보고 ☐ 기타

ROBOTIQ 핸드그리퍼 설정방법

로봇제어팀 이인재 과장

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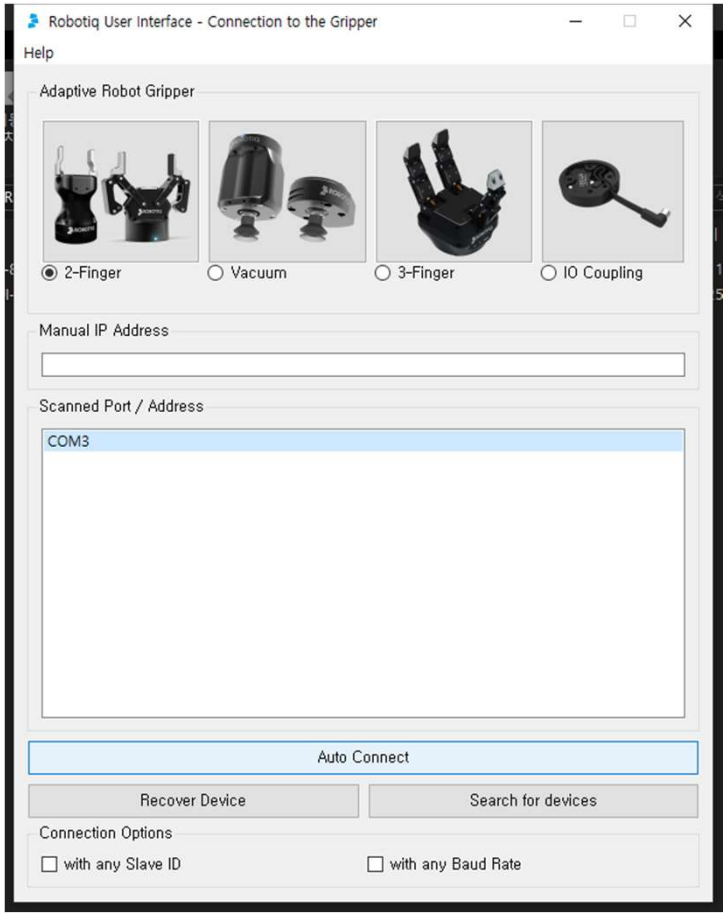
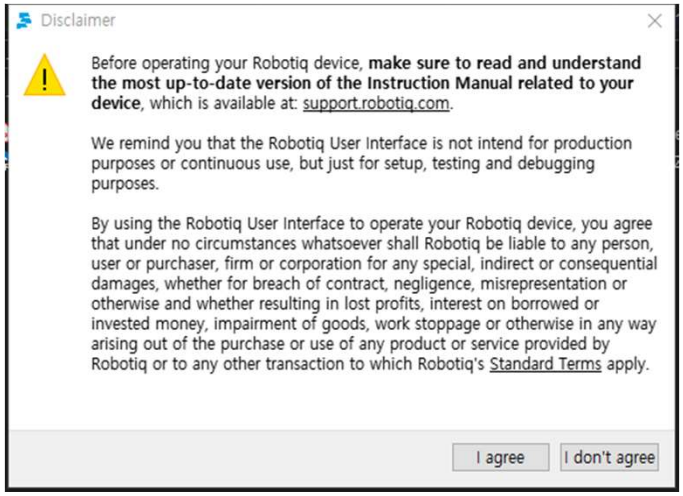
Project date | 2024.09.11

ABIMAN ENGINEERING

1. RUI Tool 사용

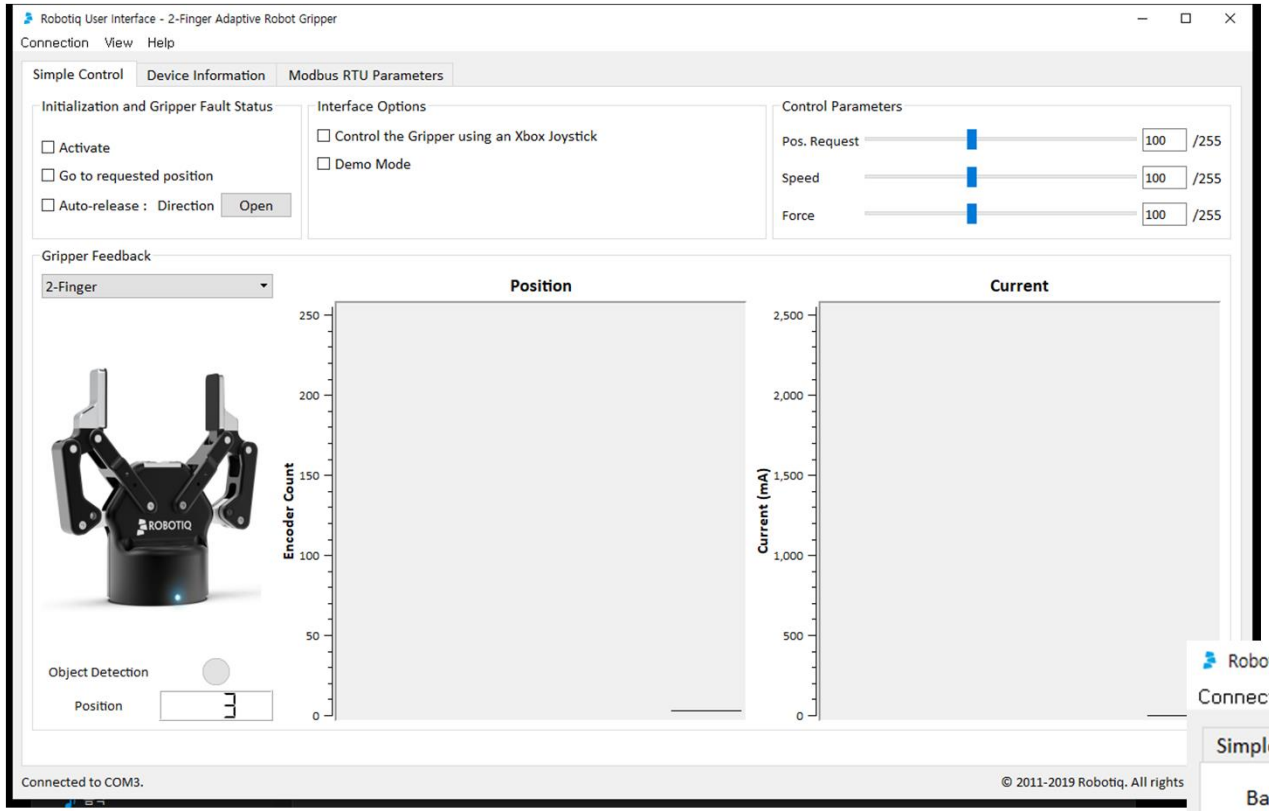
1. rs485 usb convertor 준비.
2. RUI-tool 준비





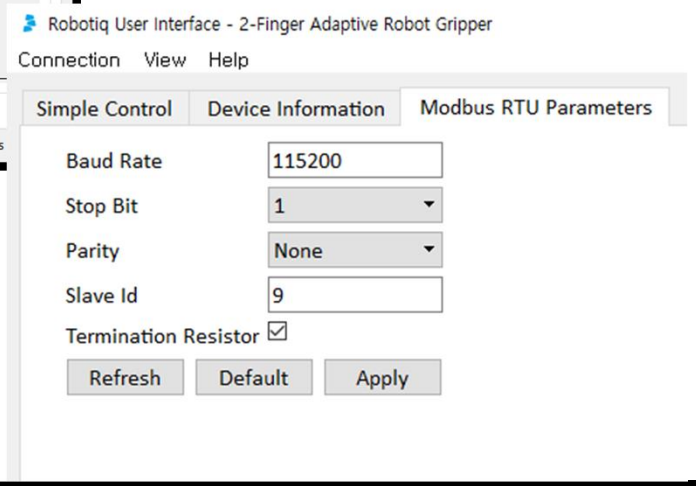
- 케이블 연결후 자동 검색됨
- 자동연결 클릭

1. RUI Tool 사용

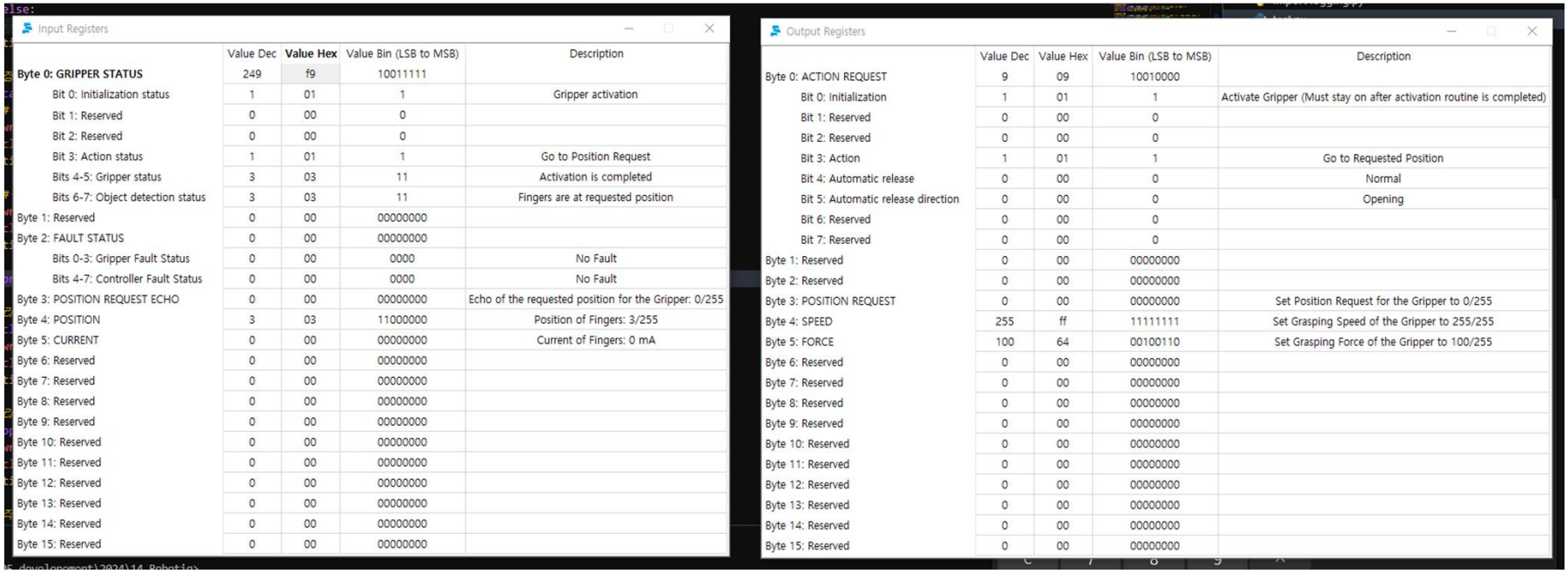


- Activate : 그리퍼 활성화
- Go to reauested position : 설정한 위치로 이동
- Auto-release : 오른쪽 open close 변경 체크시 자동 열고 닫고

- 중간 Demo Mode 사용시 그냥 다양한 동작 함.
- 파라메타 기본값



1. RUI Tool 사용



Input Registers

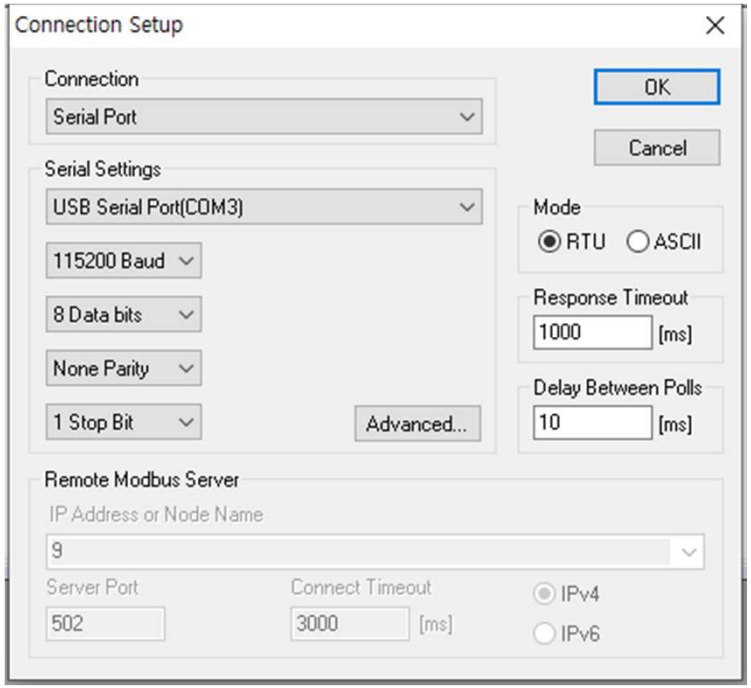
	Value Dec	Value Hex	Value Bin (LSB to MSB)	Description
Byte 0: GRIPPER STATUS	249	f9	10011111	
Bit 0: Initialization status	1	01	1	Gripper activation
Bit 1: Reserved	0	00	0	
Bit 2: Reserved	0	00	0	
Bit 3: Action status	1	01	1	Go to Position Request
Bits 4-5: Gripper status	3	03	11	Activation is completed
Bits 6-7: Object detection status	3	03	11	Fingers are at requested position
Byte 1: Reserved	0	00	00000000	
Byte 2: FAULT STATUS	0	00	00000000	
Bits 0-3: Gripper Fault Status	0	00	0000	No Fault
Bits 4-7: Controller Fault Status	0	00	0000	No Fault
Byte 3: POSITION REQUEST ECHO	0	00	00000000	Echo of the requested position for the Gripper: 0/255
Byte 4: POSITION	3	03	11000000	Position of Fingers: 3/255
Byte 5: CURRENT	0	00	00000000	Current of Fingers: 0 mA
Byte 6: Reserved	0	00	00000000	
Byte 7: Reserved	0	00	00000000	
Byte 8: Reserved	0	00	00000000	
Byte 9: Reserved	0	00	00000000	
Byte 10: Reserved	0	00	00000000	
Byte 11: Reserved	0	00	00000000	
Byte 12: Reserved	0	00	00000000	
Byte 13: Reserved	0	00	00000000	
Byte 14: Reserved	0	00	00000000	
Byte 15: Reserved	0	00	00000000	

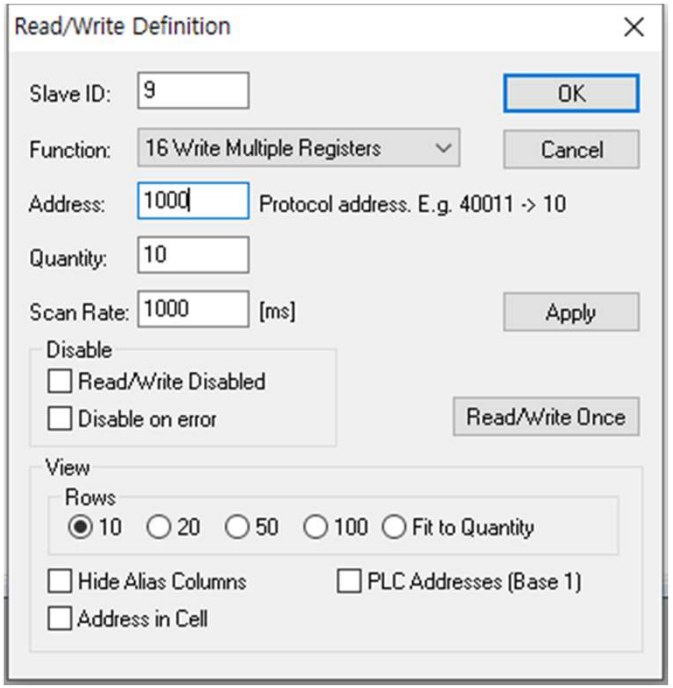
Output Registers

	Value Dec	Value Hex	Value Bin (LSB to MSB)	Description
Byte 0: ACTION REQUEST	9	09	10010000	
Bit 0: Initialization	1	01	1	Activate Gripper (Must stay on after activation routine is completed)
Bit 1: Reserved	0	00	0	
Bit 2: Reserved	0	00	0	
Bit 3: Action	1	01	1	Go to Requested Position
Bit 4: Automatic release	0	00	0	Normal
Bit 5: Automatic release direction	0	00	0	Opening
Bit 6: Reserved	0	00	0	
Bit 7: Reserved	0	00	0	
Byte 1: Reserved	0	00	00000000	
Byte 2: Reserved	0	00	00000000	
Byte 3: POSITION REQUEST	0	00	00000000	Set Position Request for the Gripper to 0/255
Byte 4: SPEED	255	ff	11111111	Set Grasping Speed of the Gripper to 255/255
Byte 5: FORCE	100	64	00100110	Set Grasping Force of the Gripper to 100/255
Byte 6: Reserved	0	00	00000000	
Byte 7: Reserved	0	00	00000000	
Byte 8: Reserved	0	00	00000000	
Byte 9: Reserved	0	00	00000000	
Byte 10: Reserved	0	00	00000000	
Byte 11: Reserved	0	00	00000000	
Byte 12: Reserved	0	00	00000000	
Byte 13: Reserved	0	00	00000000	
Byte 14: Reserved	0	00	00000000	
Byte 15: Reserved	0	00	00000000	

- View 들어가면 입력 출력 모니터링 값 검색가능.

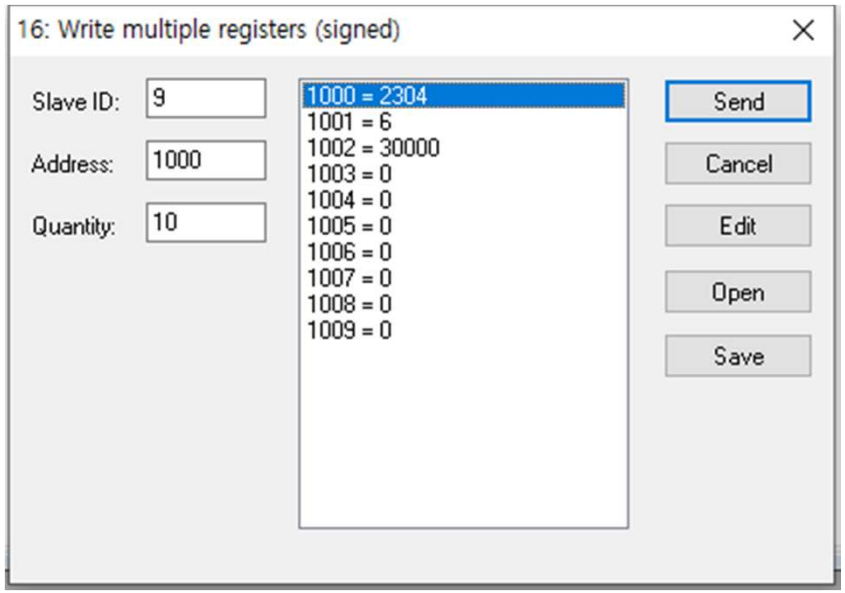
2. Modbus Poll 사용





- 설정값 사진 참고
- 9 슬레이브 필수
- 1000 그리퍼 입력 (움직임명령 여기전달)
- 2000 그리퍼 출력

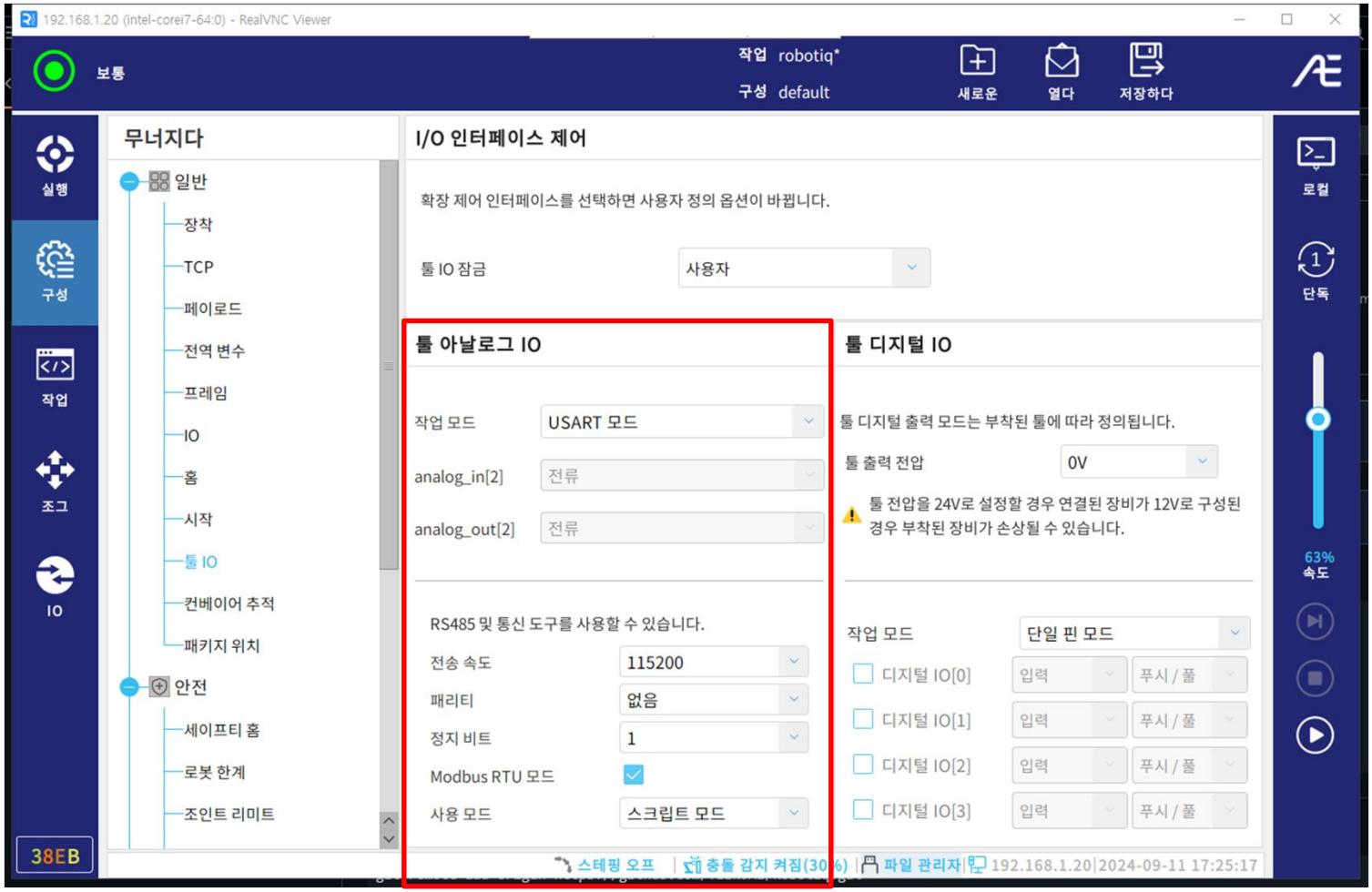
2. Modbus Poll 사용



- 1000 : 활성화
- 1001 : 그리퍼 포인트값
- 1002 : 그리퍼 속도

- 1000 : 2304(포지션 활성화값), 256 초기 원점동작진행
- 1001 : 0~255 값
- 1002 : 0~65535 값

3. ARC script 사용



4.Python 사용

https://github.com/YIINJAE/Robotiq.git

모든 자료는 해당 링크에 있음.