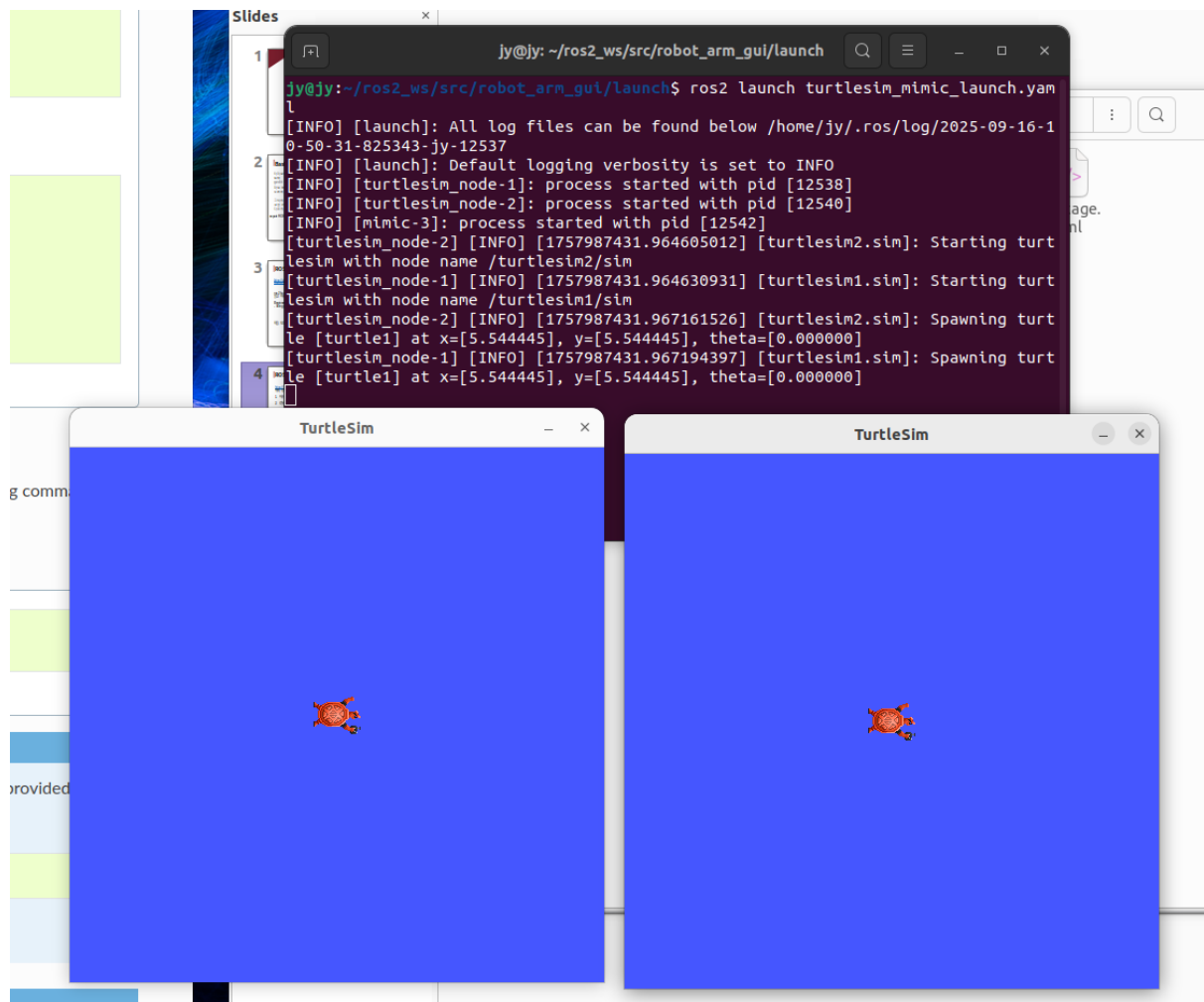


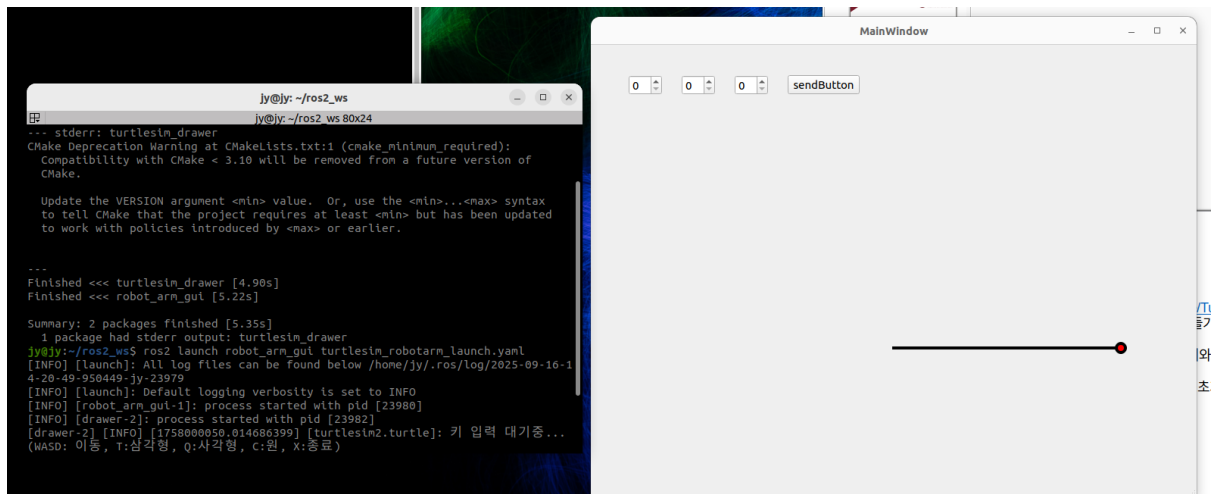
Day3_hw2 보고서

1. Creating a launch file

ROS 2의 Launch 파일은 여러 노드와 실행 환경을 하나로 묶어 관리하는 도구로, 어떤 프로그램을 실행할지, 네임스페이스나 리맵핑을 어떻게 할지를 정의할 수 있다. 튜토리얼에서는 두 개의 turtlesim_node를 각각 turtlesim1, turtlesim2라는 네임스페이스로 실행하고, mimic 노드를 추가하여 첫 번째 거북이의 위치 정보를 받아 두 번째 거북이의 속도 명령으로 전달해 따라 움직이도록 했다. 이렇게 작성한 XML 형식의 launch 파일을 ros2 launch 명령으로 실행하면 두 개의 거북이 창과 mimic 노드가 동시에 켜지고, 첫 번째 거북이를 움직이면 두 번째 거북이가 똑같이 따라간다. 다음은 이를 모두 실행하여 학습 결과 사진이다.



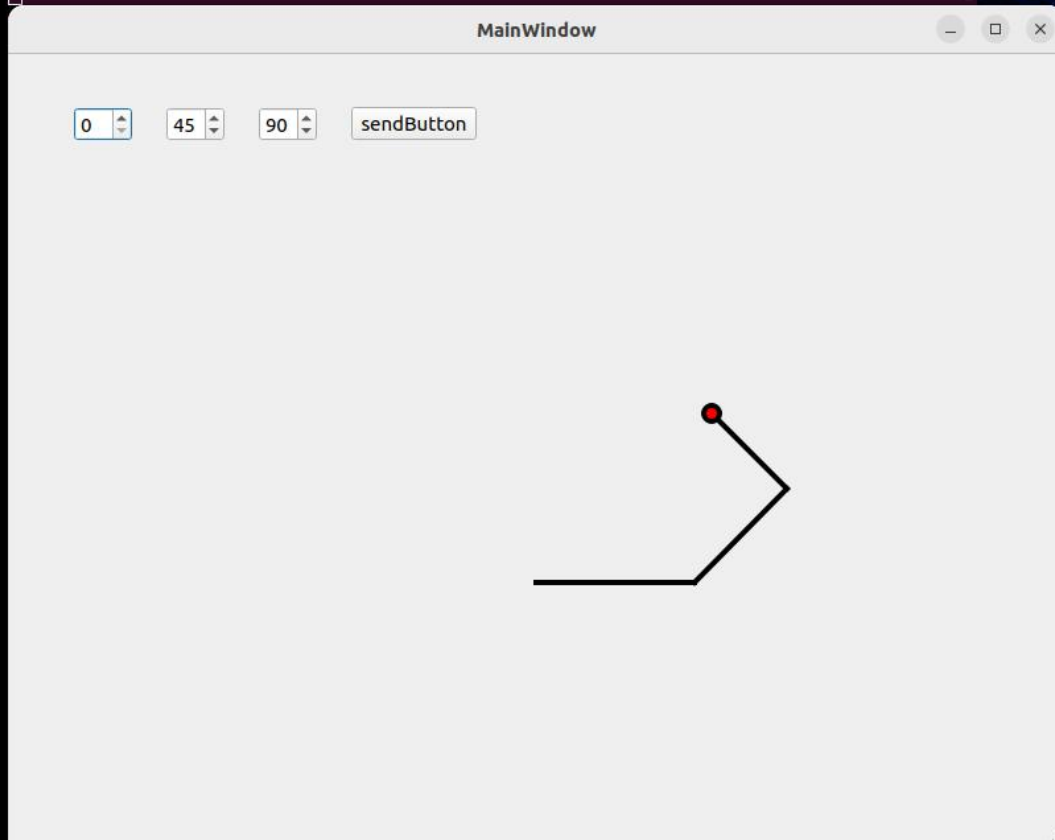
2. Robotarm&draw_turtle launch 파일



3. 파라미터를 이용한 robot arm gui 초기 값 설정

```
jy@jy: ~/ros2_ws
[robot_arm_gui-1] what(): robot_arm.initial_angles
[ERROR] [robot_arm_gui-1]: process has died [pid 29316, exit code -6, cmd '/home/jy/ros2_ws/install/robot_arm_gui/lib/robot_arm_gui/robot_arm_gui --ros-args -r __node:=robot -r __ns:=/turtlesim1 --params-file /tmp/launch_params_3wle4pwd --params-file /tmp/launch_params_vufrqq5e'].
jy@jy:~/ros2_ws$ cd ~/ros2_ws
colcon build --packages-select robot_arm_gui
source install/setup.bash
Starting >>> robot_arm_gui
Finished <<< robot_arm_gui [4.11s]

Summary: 1 package finished [4.26s]
jy@jy:~/ros2_ws$ ros2 launch robot_arm_gui robotarm_launch.yaml
[INFO] [launch]: All log files can be found below /home/jy/.ros/log/2025-09-16-16-22-43-026881-jy-29484
[INFO] [launch]: Default logging verbosity is set to INFO
[INFO] [robot_arm_gui-1]: process started with pid [29485]
[INFO] [robot_arm_gui-1]: process has finished cleanly [pid 29485]
jy@jy:~/ros2_ws$ ros2 launch robot_arm_gui robotarm_launch.yaml
[INFO] [launch]: All log files can be found below /home/jy/.ros/log/2025-09-16-16-23-35-184263-jy-29520
[INFO] [launch]: Default logging verbosity is set to INFO
[INFO] [robot_arm_gui-1]: process started with pid [29521]
```



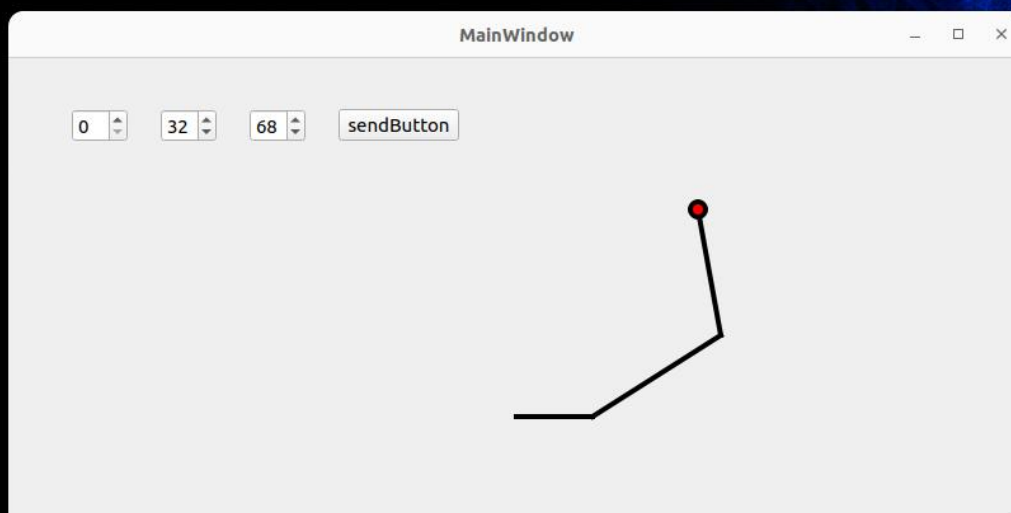
```

jy@jy: ~/ros2_ws
jy@jy: ~/ros2_ws 80x24
colcon build --packages-select robot_arm_gui
source install/setup.bash
Starting >>> robot_arm_gui
Finished <<< robot_arm_gui [0.10s]

Summary: 1 package finished [0.23s]
jy@jy:~/ros2_ws$ ros2 launch robot_arm_gui robotarm_launch.yaml
[INFO] [launch]: All log files can be found below /home/jy/.ros/log/2025-09-16-1
6-27-08-593791-jy-29920
[INFO] [launch]: Default logging verbosity is set to INFO
[INFO] [robot_arm_gui-1]: process started with pid [29921]
[INFO] [robot_arm_gui-1]: process has finished cleanly [pid 29921]
jy@jy:~/ros2_ws$ colcon build --packages-select robot_arm_gui
Starting >>> robot_arm_gui
Finished <<< robot_arm_gui [0.10s]

Summary: 1 package finished [0.24s]
jy@jy:~/ros2_ws$ source install/setup.bash
jy@jy:~/ros2_ws$ ros2 launch robot_arm_gui robotarm_launch.yaml
[INFO] [launch]: All log files can be found below /home/jy/.ros/log/2025-09-16-1
6-28-49-654846-jy-30095
[INFO] [launch]: Default logging verbosity is set to INFO
[INFO] [robot_arm_gui-1]: process started with pid [30096]

```



```

robotarm_launch.yaml
~/ros2_ws/src/robot_arm_gui/launch
Save
1 launch:
2   - node:
3     pkg: "robot_arm_gui"
4     exec: "robot_arm_gui"
5     name: "robot"
6     namespace: "turtlesim1"
7     param:
8       - name: "robot_arm.link_lengths"
9         value: [60, 120, 100]
10      - name: "robot_arm.angles"
11        value: [0, 32, 68]
12
YAML Tab Width: 8 Ln 9, Col 31 INS

```

