

```
sunidhi270@sunidhiubuntu22:~$ source /opt/ros/humble/setup.bash
mkdir -p ~/ros2_ws3/src
cd ~/ros2_ws3
colcon build
source install/setup.bash
```

```
Summary: 0 packages finished [0.21s]
sunidhi270@sunidhiubuntu22:~/ros2_ws3$ ls
build  install  log  src
sunidhi270@sunidhiubuntu22:~/ros2_ws3$ cd src
sunidhi270@sunidhiubuntu22:~/ros2_ws3/src$ ros2 pkg create
--build-type ament_python talkerlistener
going to create a new package
package name: talkerlistener
destination directory: /home/sunidhi270/ros2_ws3/src
package format: 3
version: 0.0.0
description: TODO: Package description
maintainer: ['sunidhi270 <sunidhi270@todo.todo>']
licenses: ['TODO: License declaration']
build type: ament_python
dependencies: []
creating folder ./talkerlistener
creating ./talkerlistener/package.xml
creating source folder
creating folder ./talkerlistener/talkerlistener
creating ./talkerlistener/setup.py
creating ./talkerlistener/setup.cfg
creating folder ./talkerlistener/resource
creating ./talkerlistener/resource/talkerlistener
creating ./talkerlistener/talkerlistener/__init__.py
creating folder ./talkerlistener/test
creating ./talkerlistener/test/test_copyright.py
creating ./talkerlistener/test/test_flake8.py
creating ./talkerlistener/test/test_pep257.py
```

```
[WARNING]: Unknown license 'TODO: License declaration'. This has
been set in the package.xml, but no LICENSE file has been created.
It is recommended to use one of the ament license identifiers:
Apache-2.0
BSL-1.0
BSD-2.0
BSD-2-Clause
BSD-3-Clause
GPL-3.0-only
```

LGPL-3.0-only

MIT

MIT-0

```
sunidhi270@sunidhiubuntu22:~/ros2_ws3/src$ ls
talkerlistener
sunidhi270@sunidhiubuntu22:~/ros2_ws3/src$ cd talkerlistener
sunidhi270@sunidhiubuntu22:~/ros2_ws3/src/talkerlistener$ ls
package.xml  resource  setup.cfg  setup.py  talkerlistener  test
sunidhi270@sunidhiubuntu22:~/ros2_ws3/src/talkerlistener$ cd
talkerlistener
sunidhi270@sunidhiubuntu22:~/ros2_ws3/src/talkerlistener/talkerlisten
er$ code talker.py
sunidhi270@sunidhiubuntu22:~/ros2_ws3/src/talkerlistener/talkerlisten
er$ code listener.py
sunidhi270@sunidhiubuntu22:~/ros2_ws3/src/talkerlistener/talkerlisten
er$ cd ..
sunidhi270@sunidhiubuntu22:~/ros2_ws3/src/talkerlistener$ ls
package.xml  resource  setup.cfg  setup.py  talkerlistener  test
sunidhi270@sunidhiubuntu22:~/ros2_ws3/src/talkerlistener$ code
setup.py
sunidhi270@sunidhiubuntu22:~/ros2_ws3/src/talkerlistener$ cd /
sunidhi270@sunidhiubuntu22:/$ cd ~/ros2_ws
colcon build
source install/setup.bash
Starting >>> talker_listener
Starting >>> talker_listener_2
Finished <<< talker_listener_2 [0.99s]
Finished <<< talker_listener [1.00s]
```

```
Summary: 2 packages finished [1.23s]
sunidhi270@sunidhiubuntu22:~/ros2_ws$ cd ~/ros2_ws3
colcon build
source install/setup.bash
Starting >>> talkerlistener
Finished <<< talkerlistener [0.64s]
```

```
Summary: 1 package finished [0.84s]
sunidhi270@sunidhiubuntu22:~/ros2_ws3$ cd src
sunidhi270@sunidhiubuntu22:~/ros2_ws3/src$ cd talkerlistener
sunidhi270@sunidhiubuntu22:~/ros2_ws3/src/talkerlistener$ mkdir
launch
sunidhi270@sunidhiubuntu22:~/ros2_ws3/src/talkerlistener$ ls
launch  package.xml  resource  setup.cfg  setup.py  talkerlistener
test
sunidhi270@sunidhiubuntu22:~/ros2_ws3/src/talkerlistener$ cd launch
```

```
sunidhi270@sunidhiubuntu22:~/ros2_ws3/src/talkerlistener/launch$ code
talk_listen_launch.py
sunidhi270@sunidhiubuntu22:~/ros2_ws3/src/talkerlistener/launch$ cd
~/ros2_ws3
colcon build
source install/setup.bash
Starting >>> talkerlistener
Finished <<< talkerlistener [0.68s]
```

```
Summary: 1 package finished [0.90s]
sunidhi270@sunidhiubuntu22:~/ros2_ws3$ ros2 launch talkerlistener
talk_listen_launch.py
[INFO] [launch]: All log files can be found below
/home/sunidhi270/.ros/log/2025-05-10-15-38-25-979394-sunidhiubuntu22-
27166
[INFO] [launch]: Default logging verbosity is set to INFO
[INFO] [talker-1]: process started with pid [27167]
[INFO] [listener-2]: process started with pid [27169]
[talker-1] [INFO] [1746891507.296403564] [talker]: Published: "Hello
from launch file!"
[listener-2] [INFO] [1746891507.296403523] [listener]: Received:
"Hello from launch file!"
[talker-1] [INFO] [1746891508.278670648] [talker]: Published: "Hello
from launch file!"
[listener-2] [INFO] [1746891508.279951792] [listener]: Received:
"Hello from launch file!"
[talker-1] [INFO] [1746891509.283118876] [talker]: Published: "Hello
from launch file!"
[listener-2] [INFO] [1746891509.283728218] [listener]: Received:
"Hello from launch file!"
[talker-1] [INFO] [1746891510.279438985] [talker]: Published: "Hello
from launch file!"
[listener-2] [INFO] [1746891510.280193871] [listener]: Received:
"Hello from launch file!"
[talker-1] [INFO] [1746891511.282745189] [talker]: Published: "Hello
from launch file!"
[listener-2] [INFO] [1746891511.283398699] [listener]: Received:
"Hello from launch file!"
[talker-1] [INFO] [1746891512.279036119] [talker]: Published: "Hello
from launch file!"
[listener-2] [INFO] [1746891512.279506793] [listener]: Received:
"Hello from launch file!"
[talker-1] [INFO] [1746891513.278695928] [talker]: Published: "Hello
from launch file!"
```

[listener-2] [INFO] [1746891513.280041448] [listener]: Received:  
"Hello from launch file!"  
[talker-1] [INFO] [1746891514.283104760] [talker]: Published: "Hello  
from launch file!"  
[listener-2] [INFO] [1746891514.283647476] [listener]: Received:  
"Hello from launch file!"  
[talker-1] [INFO] [1746891515.281583041] [talker]: Published: "Hello  
from launch file!"  
[listener-2] [INFO] [1746891515.282113299] [listener]: Received:  
"Hello from launch file!"  
[talker-1] [INFO] [1746891516.280240570] [talker]: Published: "Hello  
from launch file!"  
[listener-2] [INFO] [1746891516.281068082] [listener]: Received:  
"Hello from launch file!"  
[talker-1] [INFO] [1746891517.280933623] [talker]: Published: "Hello  
from launch file!"  
[listener-2] [INFO] [1746891517.281330629] [listener]: Received:  
"Hello from launch file!"  
[talker-1] [INFO] [1746891518.279528180] [talker]: Published: "Hello  
from launch file!"  
[listener-2] [INFO] [1746891518.280521903] [listener]: Received:  
"Hello from launch file!"  
[talker-1] [INFO] [1746891519.279227707] [talker]: Published: "Hello  
from launch file!"  
[listener-2] [INFO] [1746891519.280127554] [listener]: Received:  
"Hello from launch file!"  
[talker-1] [INFO] [1746891520.278901019] [talker]: Published: "Hello  
from launch file!"  
[listener-2] [INFO] [1746891520.279563403] [listener]: Received:  
"Hello from launch file!"  
s[talker-1] [INFO] [1746891521.277796065] [talker]: Published: "Hello  
from launch file!"  
[listener-2] [INFO] [1746891521.278981499] [listener]: Received:  
"Hello from launch file!"  
to[talker-1] [INFO] [1746891522.277905289] [talker]: Published:  
"Hello from launch file!"  
[listener-2] [INFO] [1746891522.278509215] [listener]: Received:  
"Hello from launch file!"  
[talker-1] [INFO] [1746891523.282217861] [talker]: Published: "Hello  
from launch file!"  
[listener-2] [INFO] [1746891523.283293377] [listener]: Received:  
"Hello from launch file!"  
[talker-1] [INFO] [1746891524.276966328] [talker]: Published: "Hello  
from launch file!"

[listener-2] [INFO] [1746891524.277361376] [listener]: Received:  
"Hello from launch file!"  
[talker-1] [INFO] [1746891525.279648739] [talker]: Published: "Hello  
from launch file!"  
[listener-2] [INFO] [1746891525.280583294] [listener]: Received:  
"Hello from launch file!"  
[talker-1] [INFO] [1746891526.281138500] [talker]: Published: "Hello  
from launch file!"  
[listener-2] [INFO] [1746891526.282174099] [listener]: Received:  
"Hello from launch file!"  
[talker-1] [INFO] [1746891527.279930007] [talker]: Published: "Hello  
from launch file!"  
[listener-2] [INFO] [1746891527.280691351] [listener]: Received:  
"Hello from launch file!"  
[talker-1] [INFO] [1746891528.282752775] [talker]: Published: "Hello  
from launch file!"  
[listener-2] [INFO] [1746891528.283861375] [listener]: Received:  
"Hello from launch file!"  
[talker-1] [INFO] [1746891529.278680099] [talker]: Published: "Hello  
from launch file!"  
[listener-2] [INFO] [1746891529.280015703] [listener]: Received:  
"Hello from launch file!"  
[talker-1] [INFO] [1746891530.279164776] [talker]: Published: "Hello  
from launch file!"  
[listener-2] [INFO] [1746891530.280094082] [listener]: Received:  
"Hello from launch file!"  
[talker-1] [INFO] [1746891531.280945674] [talker]: Published: "Hello  
from launch file!"  
[listener-2] [INFO] [1746891531.281886938] [listener]: Received:  
"Hello from launch file!"  
[talker-1] [INFO] [1746891532.278477083] [talker]: Published: "Hello  
from launch file!"  
[listener-2] [INFO] [1746891532.280105566] [listener]: Received:  
"Hello from launch file!"  
[talker-1] [INFO] [1746891533.278414188] [talker]: Published: "Hello  
from launch file!"  
[listener-2] [INFO] [1746891533.279504413] [listener]: Received:  
"Hello from launch file!"  
[talker-1] [INFO] [1746891534.277700318] [talker]: Published: "Hello  
from launch file!"  
[listener-2] [INFO] [1746891534.278337202] [listener]: Received:  
"Hello from launch file!"  
[talker-1] [INFO] [1746891535.283330827] [talker]: Published: "Hello  
from launch file!"

[listener-2] [INFO] [1746891535.283891003] [listener]: Received:  
"Hello from launch file!"  
[talker-1] [INFO] [1746891536.281794178] [talker]: Published: "Hello  
from launch file!"  
[listener-2] [INFO] [1746891536.283127532] [listener]: Received:  
"Hello from launch file!"  
[talker-1] [INFO] [1746891537.278674664] [talker]: Published: "Hello  
from launch file!"  
[listener-2] [INFO] [1746891537.280021018] [listener]: Received:  
"Hello from launch file!"  
[talker-1] [INFO] [1746891538.283588014] [talker]: Published: "Hello  
from launch file!"  
[listener-2] [INFO] [1746891538.284851408] [listener]: Received:  
"Hello from launch file!"  
[talker-1] [INFO] [1746891539.279168255] [talker]: Published: "Hello  
from launch file!"  
[listener-2] [INFO] [1746891539.279496510] [listener]: Received:  
"Hello from launch file!"  
[talker-1] [INFO] [1746891540.280158987] [talker]: Published: "Hello  
from launch file!"  
[listener-2] [INFO] [1746891540.281306963] [listener]: Received:  
"Hello from launch file!"  
[talker-1] [INFO] [1746891541.280902998] [talker]: Published: "Hello  
from launch file!"  
[listener-2] [INFO] [1746891541.281739053] [listener]: Received:  
"Hello from launch file!"  
[talker-1] [INFO] [1746891542.279783012] [talker]: Published: "Hello  
from launch file!"  
[listener-2] [INFO] [1746891542.280795111] [listener]: Received:  
"Hello from launch file!"  
[talker-1] [INFO] [1746891543.278656976] [talker]: Published: "Hello  
from launch file!"  
[listener-2] [INFO] [1746891543.279931038] [listener]: Received:  
"Hello from launch file!"  
[talker-1] [INFO] [1746891544.279325583] [talker]: Published: "Hello  
from launch file!"  
[listener-2] [INFO] [1746891544.279762340] [listener]: Received:  
"Hello from launch file!"  
[talker-1] [INFO] [1746891545.279826930] [talker]: Published: "Hello  
from launch file!"  
[listener-2] [INFO] [1746891545.280768694] [listener]: Received:  
"Hello from launch file!"  
[talker-1] [INFO] [1746891546.280605062] [talker]: Published: "Hello  
from launch file!"

```

[listener-2] [INFO] [1746891546.280861024] [listener]: Received:
"Hello from launch file!"
[talker-1] [INFO] [1746891547.283160546] [talker]: Published: "Hello
from launch file!"
[listener-2] [INFO] [1746891547.283842515] [listener]: Received:
"Hello from launch file!"
^C[WARNING] [launch]: user interrupted with ctrl-c (SIGINT)
[talker-1] Traceback (most recent call last):
[talker-1]   File
"/home/sunidhi270/ros2_ws3/install/talkerlistener/lib/talkerlistener/
talker", line 33, in <module>
[talker-1]     sys.exit(load_entry_point('talkerlistener==0.0.0',
'console_scripts', 'talker')())
[talker-1]   File
"/home/sunidhi270/ros2_ws3/install/talkerlistener/lib/python3.10/site
-packages/talkerlistener/talker.py", line 21, in main
[talker-1]     rclpy.spin(node)
[talker-1]   File
"/opt/ros/humble/local/lib/python3.10/dist-packages/rclpy/__init__.py
", line 226, in spin
[talker-1]     executor.spin_once()
[talker-1]   File
"/opt/ros/humble/local/lib/python3.10/dist-packages/rclpy/executors.p
y", line 751, in spin_once
[talker-1]     self._spin_once_impl(timeout_sec)
[talker-1]   File
"/opt/ros/humble/local/lib/python3.10/dist-packages/rclpy/executors.p
y", line 740, in _spin_once_impl
[talker-1]     handler, entity, node =
self.wait_for_ready_callbacks(timeout_sec=timeout_sec)
[talker-1]   File
"/opt/ros/humble/local/lib/python3.10/dist-packages/rclpy/executors.p
y", line 723, in wait_for_ready_callbacks
[talker-1]     return next(self._cb_iter)
[talker-1]   File
"/opt/ros/humble/local/lib/python3.10/dist-packages/rclpy/executors.p
y", line 620, in _wait_for_ready_callbacks
[talker-1]     wait_set.wait(timeout_nsec)
[talker-1] KeyboardInterrupt
[listener-2] Traceback (most recent call last):
[listener-2]   File
"/home/sunidhi270/ros2_ws3/install/talkerlistener/lib/talkerlistener/
listener", line 33, in <module>
[listener-2]     sys.exit(load_entry_point('talkerlistener==0.0.0',
'console_scripts', 'listener')())

```

```

[listener-2] File
"/home/sunidhi270/ros2_ws3/install/talkerlistener/lib/python3.10/site
-packages/talkerlistener/listener.py", line 21, in main
[listener-2] rclpy.spin(node)
[listener-2] File
"/opt/ros/humble/local/lib/python3.10/dist-packages/rclpy/__init__.py
", line 226, in spin
[listener-2] executor.spin_once()
[listener-2] File
"/opt/ros/humble/local/lib/python3.10/dist-packages/rclpy/executors.p
y", line 751, in spin_once
[listener-2] self._spin_once_impl(timeout_sec)
[listener-2] File
"/opt/ros/humble/local/lib/python3.10/dist-packages/rclpy/executors.p
y", line 740, in _spin_once_impl
[listener-2] handler, entity, node =
self.wait_for_ready_callbacks(timeout_sec=timeout_sec)
[listener-2] File
"/opt/ros/humble/local/lib/python3.10/dist-packages/rclpy/executors.p
y", line 723, in wait_for_ready_callbacks
[listener-2] return next(self._cb_iter)
[listener-2] File
"/opt/ros/humble/local/lib/python3.10/dist-packages/rclpy/executors.p
y", line 620, in _wait_for_ready_callbacks
[listener-2] wait_set.wait(timeout_nsec)
[listener-2] KeyboardInterrupt
[ERROR] [talker-1]: process has died [pid 27167, exit code -2, cmd
'/home/sunidhi270/ros2_ws3/install/talkerlistener/lib/talkerlistener/
talker --ros-args -r __node:=talker --params-file
/tmp/launch_params_593b28og'].
[ERROR] [listener-2]: process has died [pid 27169, exit code -2, cmd
'/home/sunidhi270/ros2_ws3/install/talkerlistener/lib/talkerlistener/
listener --ros-args -r __node:=listener']

```