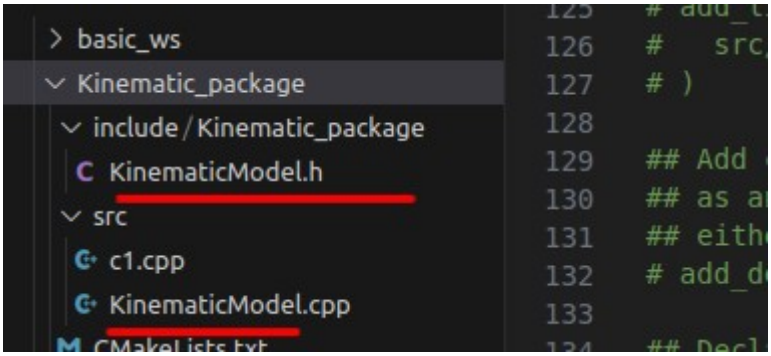
我们希望在 B 功能包 引用 A 功能包的头文件和实现的函数
B 是 Pure_pursuit
A 是 Kinematic_Model

https://blog.csdn.net/lanhuazhiyue/article/details/132570957
参考连接

A 功能包的修改 Kinematic_Model
1、在 inlcude/Kinematic_Model/创建.h 的头文件
2、在 src 下实现.cpp 文件



3、配置 cmakelist 文件
让其余功能包能够找到 这个功能包的头文件

```
catkin_package(
  INCLUDE_DIRS include
#  LIBRARIES Kinematic_package
#  CATKIN_DEPENDS roscpp rospy std_msgs
#  DEPENDS system_lib
)
```

要让**功能包名**与 实现的 运动学模型的.h 头文件和.cpp 实现文件 建立关系

```
add_library(Kinematic_package
include/Kinematic_package/KinematicModel.h
  src/KinematicModel.cpp
)
## Add cmake target dependencies of the library
```

将我们的**功能包**名与编译空间关联

```
target_link_libraries(Kinematic_package
  ${catkin_LIBRARIES}
)
```

B 功能包 Pure_pursuit

1、找功能包

```
## is used, also find other catkin packages
find_package(catkin REQUIRED COMPONENTS
  roscpp
  rospy
  std_msgs
  Kinematic_package
)
```

2、编译 我们在编译这个文件的时候，我们依赖这个功能包

```
## CATKIN_DEPENDS: catkin_packages dependent projects also need
## DEPENDS: system dependencies of this project that dependent projects also need
catkin_package(
#  INCLUDE_DIRS include
#  LIBRARIES Pure_pursuit
 CATKIN_DEPENDS roscpp rospy std_msgs Kinematic_package
#  DEPENDS system_lib
)

###########
```

3、

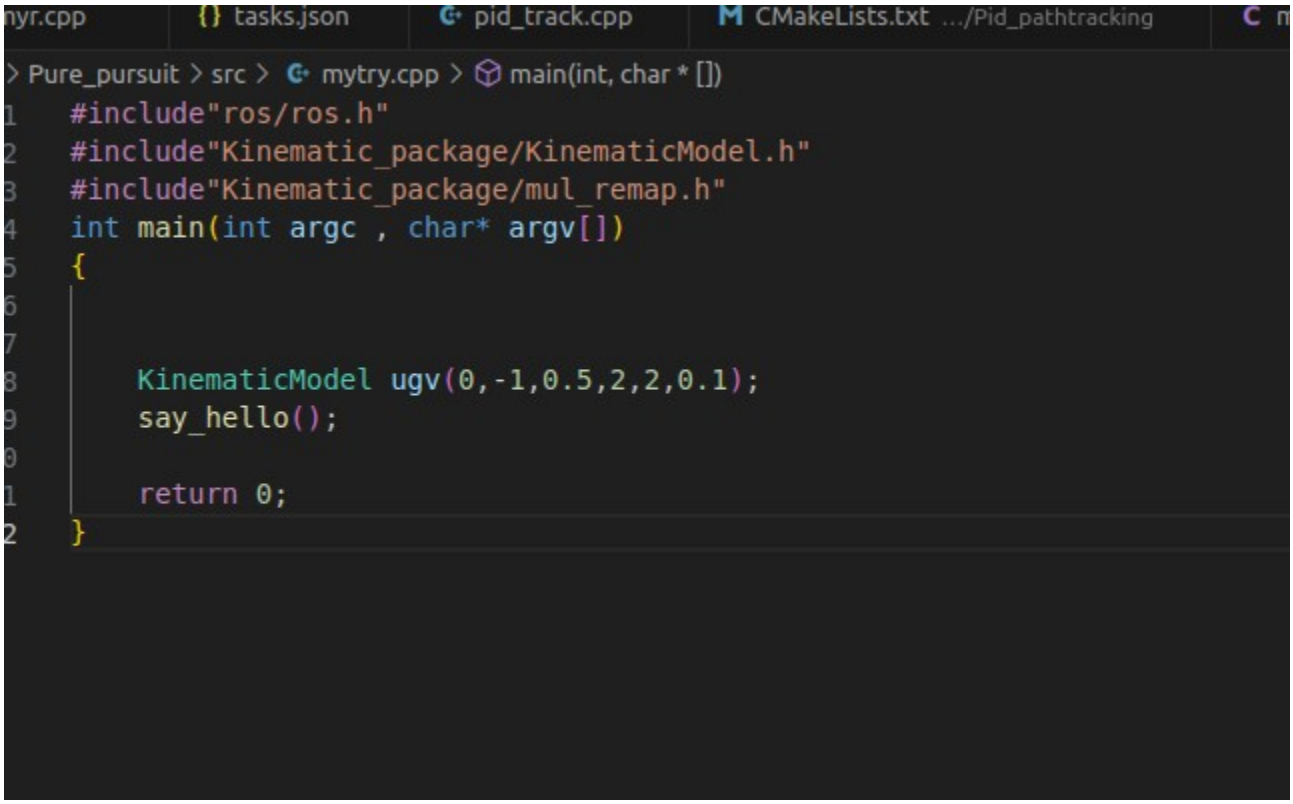
add_executable 我们的 mytry 要调用

add_dependencies mytry 编译前 要把相关的依赖编译了

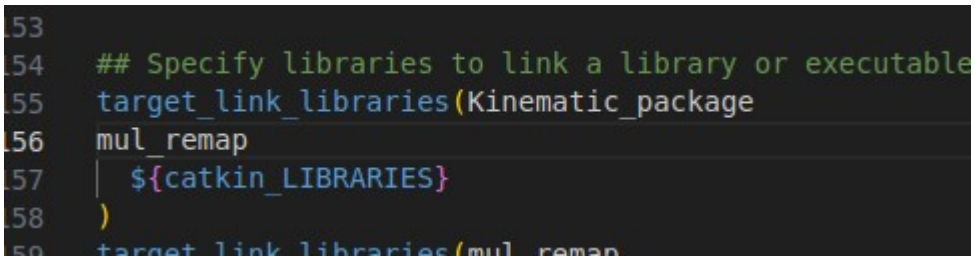
target_link_librarise mytry 会用哪些链接库 会用我们自己的 catkin_libraries 的 以及我们使用的 A 功能包的

```
135  ## With catkin_make all packages are built within a single CMake context
136  ## The recommended prefix ensures that target names across packages don't collide
137  add_executable(mytry src/mytry.cpp)
138
139  ## Rename C++ executable without prefix
140  ## The above recommended prefix causes long target names, the following renames the
141  ## target back to the shorter version for ease of user use
142  ## e.g. "rosrun someones_pkg node" instead of "rosrun someones_pkg someones_pkg_node"
143  # set_target_properties(${PROJECT_NAME}_node PROPERTIES OUTPUT_NAME node PREFIX "")
144
145  ## Add cmake target dependencies of the executable
146  ## same as for the library above
147  add_dependencies(mytry ${${PROJECT_NAME}_EXPORTED_TARGETS} ${catkin_EXPORTED_TARGETS})
148
149  ## Specify libraries to link a library or executable target against
150  target_link_libraries(mytry
151  Kinematic_package
152    ${catkin_LIBRARIES}
153  )
154
```

例子 在 mytry.cpp 文件
我们还给 Kinematic_package 在 add_link_library()



Kinematic_package 不仅仅与 Kinematic Model 还和一个 mul_remap 的.h 和.cpp 文件



最后的运行的结果