



eYRC 2021-22: Agri Bot (AB)

Create a ROS Package

- This tutorial will demonstrate how to use the `catkin_create_pkg` script to create a new catkin package, and what you can do with it after it has been created.

1. First, navigate to the source space directory of the catkin workspace you've created.

```
cd ~/catkin_ws/src
```



2. Now, use the `catkin_create_pkg` script to create a new package called `pkg_ros_basics` which depends on `std_msgs`, `roscpp`, and `rospy`:

```
catkin_create_pkg pkg_ros_basics std_msgs rospy roscpp
```



- This will create a `beginner_tutorials` folder which contains a `package.xml` and a `CMakeLists.txt`, which have been partially filled out with the information you gave `catkin_create_pkg`.
- `catkin_create_pkg` requires that you give it a `package_name` and optionally a list of dependencies on which that package depends:

```
catkin_create_pkg <package_name> [depend1] [depend2] [depend3]
```



3. Now, you need to build the packages in the catkin workspace:

```
cd ~/catkin_ws  
catkin_make
```



- Inside the package, there are `src` folder, `package.xml`, `CMakeLists.txt`, and the `include` folders.
 - **CMakeLists.txt:** This file has all the commands to build the ROS source code inside the package and create the executable. For more information about CMakeLists visit [here](#).
 - **package.xml:** This is an XML file. It mainly contains the package dependencies, information, and so forth.
 - **src:** The source code of ROS packages are kept in this folder.