



## eYRC 2021-22: Agri Bot (AB)

## Example #1: ROS Node to Get and Set Parameters

### Aim

To write a ROS Node to read `config_my.yaml` file loaded in ROS Parameter Server (done [here](#)), print it on the console and modify the phone number.

### Code

node\_param\_get\_set.py

```
#!/usr/bin/env python
```



```
import rospy
```

```
def main():
```

```
    # 1. Make the script a ROS Node.
    rospy.init_node('node_param_get_set', anonymous=True)
```

```
    # 2. Read from Parameter Server
    rospy.loginfo("Reading from Parameter Server.")
```

```
    param_config_my = rospy.get_param('details')    # Get all the parameters inside 'details'
```

```
    # Store the parameters in variables
    first_name = param_config_my['name']['first']
    last_name = param_config_my['name']['last']
    address = param_config_my['contact']['address']
    phone = param_config_my['contact']['phone']
```

```
    # Print the parameters
    rospy.loginfo(">> First Name: {}".format(first_name))
    rospy.loginfo(">> Last Name: {}".format(last_name))
    rospy.loginfo(">> Address: {}".format(address))
    rospy.loginfo(">> Phone: {}".format(phone))
```

```
    # 3. Modify the Phone Number
```

```
    rospy.set_param('/details/contact/phone', 55555)    # Modify only Phone Number in
    new_phone = rospy.get_param('/details/contact/phone') # Get only Phone Number from
    rospy.loginfo(">> New Phone: {}".format(new_phone)) # Print the new Phone Number
```

```
if __name__ == '__main__':
    try:
        main()
    except rospy.ROSInterruptException:
        pass
```

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### Output

```
[INFO] [1601389248.001963]: Reading from Parameter Server.  
[INFO] [1601389248.007928]: >> First Name: Hisenberg  
[INFO] [1601389248.010338]: >> Last Name: White  
[INFO] [1601389248.012679]: >> Address: XYZ Street, XYZ  
[INFO] [1601389248.014838]: >> Phone: 77777  
[INFO] [1601389248.020719]: >> New Phone: 55555
```



- The code is self-explanatory.
  - If you are not able to understand the code feel free to seek help from us.
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