

# Send data

---

## 1. API Introduction

---

The APIs related to reading the robot arm are:

### **get\_angles()**

Function explanation: Read the angles of the six joints of the robot arm.

Parameter explanation:

- Return value: Return the angle values of the six joints.

### **get\_coords()**

Function explanation: Read the coordinate value of the current position of the robot arm.

Parameter explanation:

- Return value: Return the coordinate value of the current position of the robot arm

### **get\_encoders()**

Function function: Read the potential value of the six joints of the robot arm.

Parameter explanation:

- Return value: Return the potential value of the six joints of the robot arm.

### **get\_radians()**

Function function: Read the radian value of the six joints of the robot arm.

Parameter explanation:

- Return value: Return the radian value of the six joints of the robot arm.

### **get\_gripper\_value()**

Function function: Read the angle value of the gripper of the robot arm.

Parameter explanation:

- Return value: Return the angle value of the robot gripper.

## 2. Code content

---

Code path: ~/jetcobot\_ws/src/jetcobot\_ctrl/scripts/read\_data.ipynb

```
#!/usr/bin/env python3
#coding=utf-8
import os
import time
from pymycobot.mycobot import MyCobot
```

Initialize the robot object.

```
mc = MyCobot('/dev/ttyUSB0', 1000000)
```

Read and print the angles of the six joints of the robot.

```
angles = mc.get_angles()
print("read angles:", angles)
```

Read and print the coordinates of the robot.

```
coords = mc.get_coords()
print("read coords:", coords)
```

Read and print the potential value of the robot arm.

```
encoders = mc.get_encoders()
print("encoders:", encoders)
```

Read and print the radian value of the robot arm.

```
radians = mc.get_radians()
print("read radians:", radians)
```

Read and print the gripper angle of the robot arm.

```
gripper = mc.get_gripper_value()
print("gripper:", gripper)
```

### 3. Run the program

---

Click the Run button on jupyterlab to run the relevant program.

