

# Xbox Parameter Setting manual

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This is a method of setting parameters related to shuttle operation.

## Description

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### 1. File name

names.py

### 2. File path related to parameter setting

joystick-serial/src/ums\_xbox/names.py

### 3. When you find that route, go to the line below (18 ~ 31 line )

```
18 class Param(Joy):
19     def __init__(self) -> None:
20         super().__init__()
21
22     def __repr__(self):
23         return "<.{cls}>".format(cls=self.__class__.__name__)
24
25     MAX_ACCEL_VAL = 40000
26     THRESH_ACCEL_VAL = 25000
27     INCREASE_VAL = 100
28     DECREASE_VAL = 200
29     APS_INIT_VAL = 2500
30     CRUISE_VAL = 5000
31     LIMIT_STEER_VAL = 32700
```

### 4. Description of each parameter

- MAX\_ACCEL\_VAL (command maximum accel value)
  - Anything above this value is limited to the set maximum value.
  - Maximum allowable value : 65535
- THRESH\_ACCEL\_VAL (threshold accel value)
  - The accelerator value increases rapidly before the threshold value, but slowly increases afterwards.
  - Maximum allowable value : MAX\_ACCEL\_VAL
- INCREASE\_VAL (Accel value added)
  - This value added to converge to the target value (xbox accel value).
  - The larger the value, the faster the target speed is reached.
  - A value between 100 and 200 is recommended.
- DECREASE\_VAL (Accel value subtracted)
  - This value subtracted to converge to the target value (xbox accel value).
  - The larger the value, the faster the target speed is reached.
  - A value between 100 and 200 is recommended.
- APS\_INIT\_VAL (APS initial value)
  - It is a fixed speed APS value when the gear is D or R.
  - A value between 2500 and 3000 is recommended.

- CRUISE\_VAL (Cruise speed value)
  - This value is added or decreased when in cruise mode.
  - A value between 4000 and 6000 is recommended.
- LIMIT\_STEER\_VAL (command maximum steer value)
  - Anything above this value is limited to the set maximum value.
  - Maximum allowable value : 32767