Pairing Xbox One controller on Ubuntu 18.04

To pair the controller

From StackExchange post:

```
#Install sysfsutils
sudo apt install sysfsutils

#Edit /etc/sysfs.conf (as root), add this line at the end of the file:
/module/bluetooth/parameters/disable_ertm=1
#Save changes and restart
```

If you have previously added the xbox controller using the Ubuntu Bluetooth interface or bluetoothctl, remove the device.

Then connect to the xbox controller, I used the Ubuntu Bluetooth devices menu in the settings this time.

Installing the customised Xboxdrv driver

Using xboxdrv driver from ubuntu_xboxdrv repo, which I found through this blog post This driver starts on boot and can be reloaded etc.

```
sudo apt-add-repository -y ppa:rael-gc/ubuntu-xboxdrv
sudo apt-get update
sudo apt-get install ubuntu-xboxdrv
sudo systemctl enable xboxdrv.service
sudo systemctl start xboxdrv.service
sudo systemctl status xboxdrv.service
sudo systemctl status xboxdrv.service
sudo systemctl stop xboxdrv.service #etc
```

Config

Once installed, key-mappings can be set in the file at /etc/default/xboxdrv/

For example:

```
[xboxdrv]
silent=true
deadzone=6000
dpad-as-button=true
trigger-as-button=true
[ui-axismap]
x2=REL_X:10
y2=REL_Y:-10
x1=KEY_A:KEY_D
y1=KEY_W:KEY_S
[ui-buttonmap]
a=KEY_LEFTSHIFT
b=BTN_C
x=BTN_EXTRA
y=KEY_C
[ui-buttonmap]
1b=BTN_RIGHT
rb=KEY_SPACE
[ui-buttonmap]
lt=KEY_Z
rt=BTN_LEFT
[ui-buttonmap]
dl=KEY_4
dr=KEY_2
du=REL_WHEEL:-1:150
dd=REL_WHEEL:1:150
[ui-buttonmap]
back=KEY_TAB
start=KEY_ESC
# EOF #
```

See Manual page for ubuntu-xboxdrv] for more details

NB. Manual page for the original xboxdrv

Check Xbox output

```
E.g., using:
```

jstest-gtk

My controller was on /dev/input/js4

Running the Joy Node in ROS

Edit teleop_twist_joy teleop.launch or pass a commandline parameter for _joy_dev . (@TODO: udev rule to map to this input)

Finally to run the joy node,

roslaunch teleop_twist_joy teleop.launch

