

## Arduino XInput

androidftw

sept. '20 #1

First of all, I am undecided where the proper location is for my question: Project Guidance or Programming Questions because I am not really sure what is wrong... 😞

**Overview:** I bought the above Fanatec CSR pedals a long time ago. They had a **RJ-12 to PS/2 connector** to connect directly to the Fanatec racing wheel. Since I am planning to make a DIY racing wheel, I want to connect the pedals directly to the Arduino Leonardo.



**Details:** I figured out the pedals pinout via this [ISRTV forum](#). I posted my findings above. I proceeded to cut the PS/2 connector end and splice the wires. I connected the wires to the Arduino according to my findings as pictured below.



**Testing:** Before starting the coding process, I tested the output of the Gas, Brake, and Clutch potentiometers with the following code and got the following readings: Gas(857 - 214), Brake(1007 - 275), and Clutch(760 - 705).

```
#include <XInput.h>
#include <Wire.h>

void setup() {
  Serial.begin(9600);
}

void loop() {
  int gas = analogRead(A0);
  //Serial.println(gas); //857 - 214
  int brake = analogRead(A1);
  //Serial.println(brake); //1007 - 275
  int clutch = analogRead(A2);
  //Serial.println(clutch); //760 - 705
}
```

**Xinput Code:** After finding the readings of the potentiometers, I proceeded to write the code for the Arduino controller as follows.

```
#include <XInput.h>
#include <Wire.h>

void setup() {
  XInput.begin();
}
```

```
XInput.setRange(JOY_RIGHT, 275, 1007);
XInput.setRange(JOY_LEFT, 705, 760);
XInput.setRange(TRIGGER_RIGHT, 214, 857);
}

void loop() {
  int gas = analogRead(A0);
  XInput.setTrigger(TRIGGER_RIGHT, gas);
  int brake = analogRead(A1);
  XInput.setJoystickY(JOY_RIGHT, brake);
  int clutch = analogRead(A2);
  XInput.setJoystickX(JOY_LEFT, clutch);
}
```

**Problem:** In Windows 10, under “Devices and Printers”, my controller shows up as an Xbox 360 controller thanks to the [ArduinoXInput library](#), which is good. Under “Game Controller” properties, I see Z-Axis, X-Rotation, Y-Rotation, X-Axis, Y-Axis, just like a normal Xbox 360 controller, which is also good. When I press either the Gas, Brake, or Clutch, the output of the Gas, Brake, and Clutch shows up correctly in the Game Controller properties. 😊

However, **the problem** is that in Euro Truck Simulator 2, for example, when I press the Gas pedal to the max, the truck accelerates very slowly, as if I am not pressing the Gas pedal to the max... 😞

**Question:** Did I code this incorrectly? Why is the game not detecting the whole range of the pedals? 😞

 **bonus Question:** I would prefer the Clutch to be on the right joystick X rotation. How would I go about programming this?





J-M-L Jackson

sept. '20 #2

I'm not familiar with the library but notice that you have 3 "similar" pedals but in your code you use 2 joysticks and a trigger.

Looking at the documentation :

joysticks (JOY\_LEFT and JOY\_RIGHT) use 16-bit signed values to represent their range (0 is centered, -32768 is min, 32767 is max)

Triggers (TRIGGER\_RIGHT) use 8-bit unsigned values (0 is min - trigger off, 255 is max).

may be the game expects a 16 bit value for gas and you use the TRIGGER\_RIGHT for that. 255 might be very slow if 32767 is supposed to be max speed.

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