

## HWSERIAL port #define definition doesn't work

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Tags: *None*



**Fluxanode** said:

09-03-2020 07:58 PM

## HWSERIAL port #define definition doesn't work

Ok here's a head scratcher...

Teensy 3.2 connected to a computer using onboard USB serial, and FTDI USB to RS232 to a max232 connected to serial1 (pins 0 and 1).

Why doesn't this example code work:

Code: [\[View\]](#)

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

While the version below does work when I removed the **#define HWSERIAL Serial1** and explicitly used Serial1 instead of the HWSERIAL????

The version that doesn't work is copied directly from the [https://www.pjrc.com/teensy/td\\_uart.html](https://www.pjrc.com/teensy/td_uart.html) page. The only part that works is the USB received on the Arduino Monitor.

Code: [\[View\]](#)

```
    Serial1.begin(9600);  
}
```

Is there a different way to define HWSERIAL that will work?

Last edited by KurtE; 09-03-2020 at 08:09 PM. Reason: Code tags



**brtaylor** said:

09-03-2020 08:39 PM

🗨 Originally Posted by **Fluxanode** 🗨

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Code: [\[View\]](#)

```
}  
  
void loop() {  
  . . .  
}
```

Is there a different way to define HWSERIAL that will work?

I use this all the time in my code:

Code: [\[View\]](#)

```
static constexpr HardwareSerial &GNSS_UART = Serial13;
```



**Fluxanode** said:

09-03-2020 08:44 PM

So then "HardwareSerial" can be used instead of Serial3?



**brtaylor** said:

09-03-2020 08:49 PM

🗨 Originally Posted by **Fluxanode** 🗨

So then HardwareSerial can be used instead of Serial3?

When I use this:

Code: [\[View\]](#)

```
static constexpr HardwareSerial &GNSS_UART = Serial3;
```

It creates a reference to Serial3 called GNSS\_UART. So I can use GNSS\_UART in my code instead of Serial3. The advantage of this approach is that it maintains type safety, unlike a define, and doesn't take up resources, since it's a reference. I typically have a header file of references like this for all of the hardware definitions for a project. Makes it pretty quick to port to a different hardware platform if, for example, the serial port changes number.

I'm not sure why your define isn't working...



**[KurtE](#) said:**

**09-03-2020 08:49 PM**

Note: I use the #define all of the time, and I have not had an issue. The only case that I have seen is if you have some other place that defines it differently.

So you might simply try a different #define. Example sometimes I will have XBeeSerial or DBGSerial or DXLSerial defined



**[Fluxanode](#) said:**

**09-03-2020 09:01 PM**

Kurt, I don't think so. I just copied and pasted from the web page. Would having another Arduino sketch window open cause problems?



**[KurtE](#) said:**

**09-03-2020 09:10 PM**

No should make no difference. You might double check and try it again to see if there was not something slightly off?



**[el\\_supremo](#) said:**

**09-04-2020 01:17 AM**

Why doesn't this example code work

What exactly do you mean by doesn't work?

That code (with the #define) runs fine for me on a T3.2 and a T4.0 (on Win 10 with Arduino 1.8.13 and TD 1.53).

Pete

**Fluxanode** said:

09-04-2020 04:54 PM

Basically just that. It's as if the serial1 port isn't there.

**Fluxanode** said:

09-04-2020 05:08 PM

KurtE:

Ok i cleared everything and started fresh, now it works. Strange. The first time around all I did to fix was change HWSERIAL Serial1

Thanks everyone for the help.

**PaulStoffregen** said:

09-04-2020 06:58 PM

Any chance you're using an old pre-10 version of Windows?

Windows 7 has a really confusing driver bug which could explain why it didn't work one time, but then magically started working the next.

**Fluxanode** said:

09-04-2020 07:56 PM

Thanks Paul, maybe Windows 10 also. It was really weird, it wouldn't work all day but after sleeping on it and completely starting fresh with a clean file, bingo it works...

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