

MicroDriver working sketch for COM port communication, manual

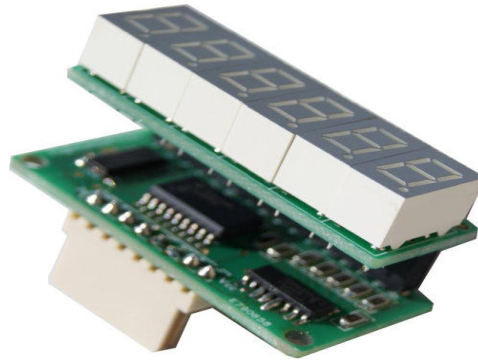
designed by: enjxp_SimPassion for FlightSimParts.eu and wendy for FlightSimparts.eu

There is also a sketch for communication with AirManager see

our website www.flightsimparts.eu

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```
// INITS      // To be updated manually,  
//           accordingly to specific usage  
//-----  
// CONSTANTS  //
```



Do not change

Settings for the MicroDrivers

```
struct DriverConnect
```

```
{  
  int Clock;  
  int Latch;  
  int Data;  
  byte Digits;  
  byte Decimal;  
}
```

If you need more MicroDrivers than 6

Add the following below String F;

String G;

!!Do not alter the structure only ADD

```
struct Digits //now for 6 modules, to add a extra module, add "String G;"
```

```
{  
  String A;  
  String B;  
  String C;  
  String D;  
  String E;  
  String F;  
}
```

```
// MODULE A : clockPin/latchPin/dataPin/Digits/DecimalPosition values :  
//To be updated manually, accordingly to personal wiring
```

These are the connection ports,For example Module A:

31 32 33 are the ports on the Arduino

5 is the number of digits

3 is the decimal point position

if you **put 0 no decimal points will show**

```
const DriverConnect ModuleA = o31, 32, 33, 5, 3 ;// green, blue, purple  
const DriverConnect ModuleB = o28, 29, 30, 5, 3 ;// green, blue, purple  
const DriverConnect ModuleC = o25, 26, 27, 6, 3 ;// green, blue, purple  
const DriverConnect ModuleD = o22, 23, 24, 6, 3 ;// green, blue, purple  
const DriverConnect ModuleE = o40, 41, 42, 8, 0 ;// green, blue, purple  
const DriverConnect ModuleF = o43, 44, 45, 6, 0 ;// green, blue, purple
```

You can manually change everything that is between quotes
These will be initially displayed

```
Digits ToDisplay =  
    t"01234", "01234", "012345", "012345", "01234567", "012345"0;  
// on Mod A, on Mod B, on Mod C, on Mod D, on Mod E, on Mod F  
Above are the digits that will be displayed on the different MicroDrivers
```

```
int max_dig_nbr          = 8;    Do not change  
  
//do not change          Do not change  
int digitpos[8]         = 1, 2, 4, 8, 16, 32, 64, 128 ;
```

```
//-----  
// Variables List
```

Please note that not all elements from the sketch are here
but only the ones that you need or want to change

```
//Digits Values Number Do not change
```

```
int number[dig_val_nbr] =  
n252,96,218,242,102,182,190,224,254,246,238,236,182,158,124,2,0o; // base 10  
equivalents for digits 0~9 and 'A' / 'N' / 'S' / 'E' / 'W' / '-' /  
' ' additional chars --> FlightSimParts.eu specific Micro Driver
```

These are the possible symbols that can be displayed by the MicroDrivers
Do not change

```
/* Relying on the FlightSimParts.eu specific MicroDrivers matrix
```

```
For units only
```

```
0 = 252  
1 = 96  
2 = 218  
3 = 242  
4 = 102  
5 = 182  
6 = 190  
7 = 224  
8 = 254  
9 = 246
```

```
For units plus decimal point, take the previous values and add +1  
Automatically set according to DriverConnect values
```

```
0. = 253  
1. = 97  
2. = 219  
3. = 243  
4. = 103  
5. = 183  
6. = 191  
7. = 225  
8. = 255  
9. = 247
```

```
Symbols
```

```
"A" = 238  
"N" = 236  
"S" = 182  
"E" = 158  
"W" = 124 --> "U"  
"_" = 2  
" " = 0 --> Blank (Space char)
```

```
*/
```

This is the part that you can use and modify to communicate with your favorite tool

In the ZIP-file there is a test file named "send.cmd".
Double click this file when the Arduino editor is closed and the COM port is free to be used by the test file
Below a snippet of the file, the part after echo is the data that will be displayed on DISPLAY A.
is the end of line marker
> COM4 will send the data to the port the Arduino is connected to you will have to adjust to the port your Arduino is connected to.

```
TIMEOUT 5  
echo A12212> COM4
```

```
void loop() {  
  
  if(Serial.available())  
    command = Serial.readStringUntil(' ');  
  ToDisplay.A = command;  
}
```