



737 Six Pack Wiring Instructions

The 737 Sixpack set was designed primarily to work with MobiFlight in conjunction with your simulator. These instructions refer to the interface with MSFS 2020 or 2024. If you use a different simulator there are some differences but the method is essentially the same. This also references the PMDG 737 which seems to be the most popular aircraft.

Be aware that if you use the default 737 in MSFS many of these functions are simply not supported, (yet as of 2026).

The set come pre-wired with a ribbon cable for each Sixpack,
In general the colour coding is as follows:

Pilot's Side:

Black - Ground or Negative
White - FUEL
Grey - OVHT/DET
Purple - IRS
Blue - APU
Green - FLT CONT
Yellow - ELEC

Co-Pilot's Side

Black - Ground or Negative
White - ENG
Grey - ANTI -ICE
Purple - OVERHEAD
Blue - HYD
Green - AIR COND
Yellow - DOORS

There's a twin cable for the recall function which is White and Purple
Also there are two further sets of four wires for the FIRE and WARNING Annunciators.
They consist of two wires for the actual switch function and two for the integral LED.

Black - (negative) and Red + (positive) = 5 volts supply to the LED inside the switch.
Black and Orange wires are the switch wires, no polarity it's just a momentary switch.

Most of this can be controlled from a single Arduino MEGA board which has more than enough pins. Alternatively you could use an interface board from Leo Bodnar's range. However this tutorial will only reference the Arduino option.

Please bear in mind that these LEDs are **5 VOLT** any higher and they will fry, and they cannot be changed. However the LED's in the Fire and Warning switches are rated at **12 VOLTS** yet they work perfectly at 5 volts, so you don't need a separate power supply.

Key Requirements

Hardware: Arduino Mega 2560 R3 (preferred for its high number of pins).
Software: MobiFlight Connector.
Sim Interface: Registered FSUIPC (highly recommended for reliable data).
PMDG Setup: You must enable EnableDataBroadcast=1 in your 737_Options.ini file for the offsets to work in MSFS/P3D.

Controlling the Six Pack LEDs (Outputs)

MobiFlight uses FSUIPC offsets to read the state of the aircraft and light up the LEDs on your panel. Also bear in mind that these panels can draw a lot of power when lit so a separate 5 volt power supply for the Arduino board is essential. If you rely on the USB port while it may work, at some point it will become saturated and possibly fail.

Wiring the Arduino to the SixPack

To be clear this is a guide to wiring the Sixpack to an Arduino, but these are complex units that can easily be damaged if not handled correctly. So before you attempt such an installation you should gather some information about MobiFlight and the Arduino systems. Typical sources of information are YouTube and the respective forums, And of course the on line resources provided by the manufacturers and developers of the software.

So here we need to add a warning that following this tutorial is at **your own risk**, if you damage your equipment in any way we will not be held responsible, as we have no control over how you proceed,

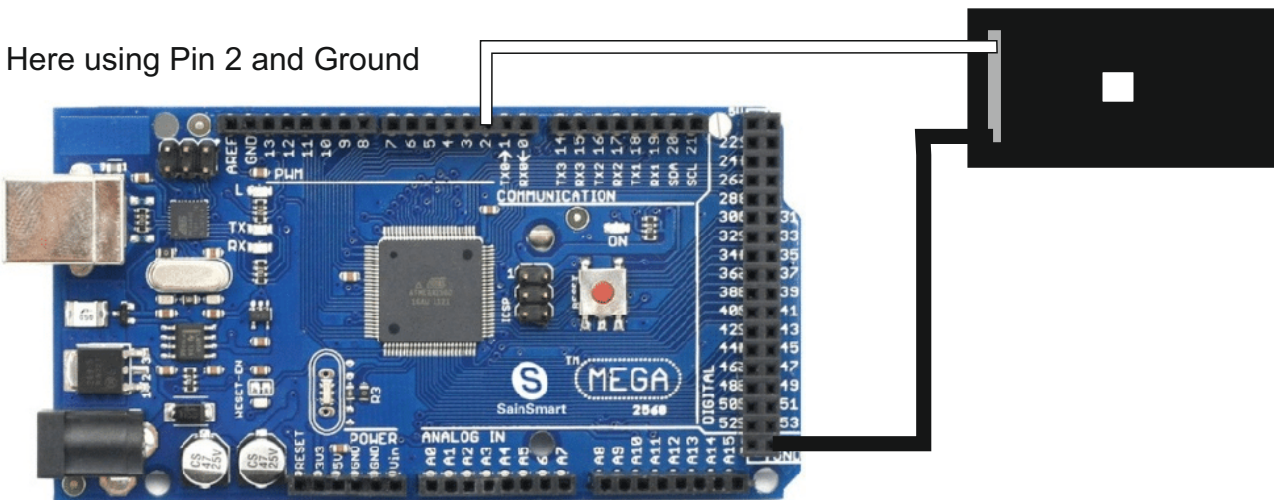
The Arduino Mega 2560

This a powerful tool for people who want to create there own systems, not just for flight simulation. In this instance it acts as a hardware bridge between your physical equipment and the simulator. Using MobiFlight to pass the necessary control functions between the two, The actual wiring is possibly the easiest part, it's just a matter of deciding which pin you want to use.

There are 53 digital I/O pins and 16 Analog Input Pins that can also be used as Digital I/O. But you don't need to worry about that because MobiFlight will sort it out for you. Generally only providing the relevant pins,

We will look at a single connection which will provide an example for you to follow for the others. This will be the Pilot's side FUEL warning, which is controlled by the White cable. See Below:

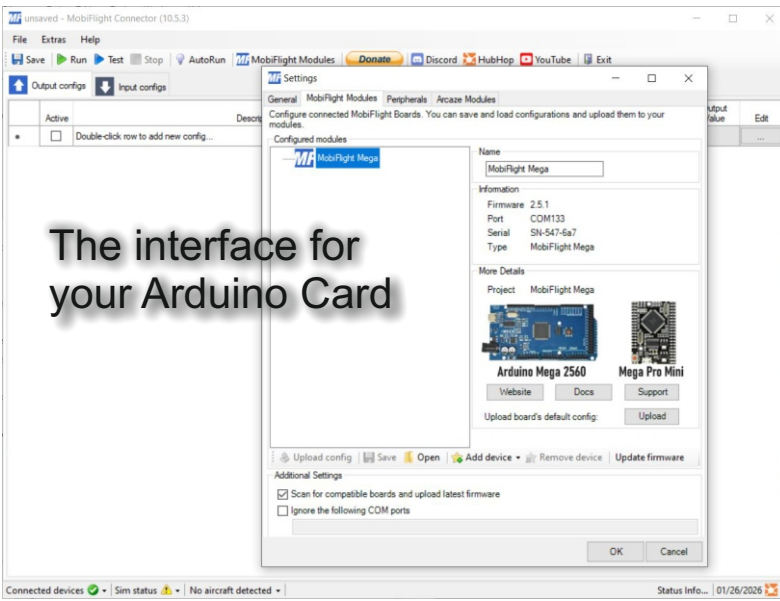
Here using Pin 2 and Ground



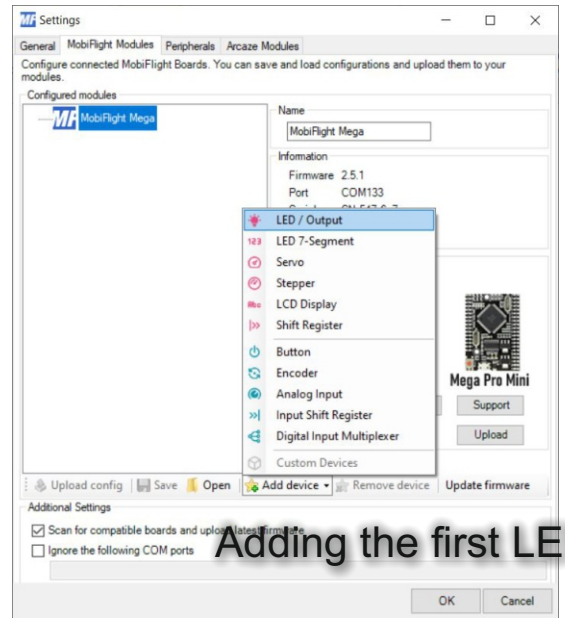
There are a number of ground pins but if you're using the same Arduino they can be chained together. Now we can look at the MobiFlight Program to see how they are assigned to the correct option.

You will see on the Next page screen shots of the MobiFlight Interface showing firstly the operation of adding the first LED, then assigning the pin to it; followed by changing the name to something more meaningful. Then over to the display tab where you tell MobiFlight what it's function is going to be.

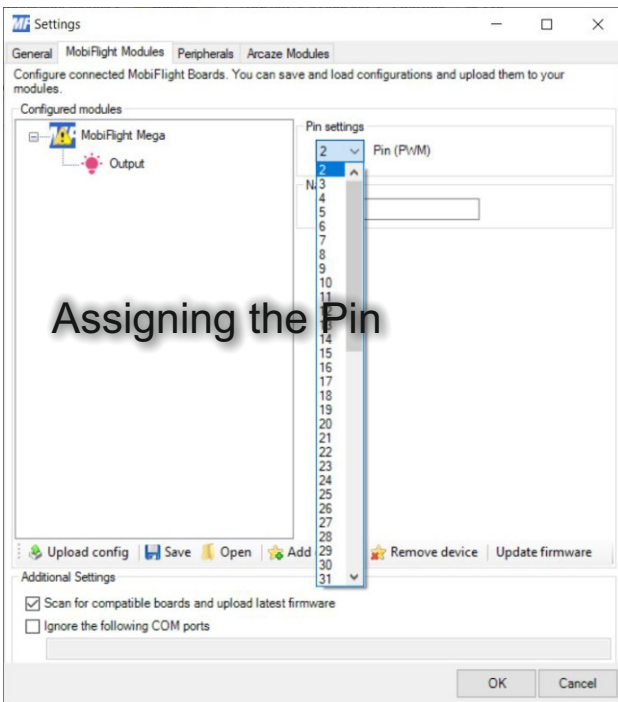
When it comes to Buttons or switches, it's the same process, only you choose button at the very start instead of LED and of course a Button is an Input Device not Output.



The interface for your Arduino Card



Adding the first LED

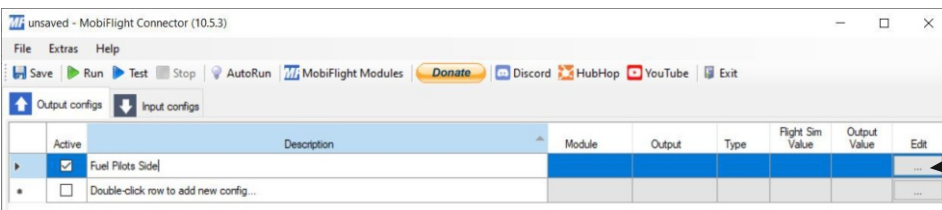


Assigning the Pin



Upload Config

Change Name for More meaningful



Edit Button

Here you create a line to assign your LED, again using a descriptive name and then press edit at the far right to move to the assign page.

Using the drop down box choose the option for PMDG B737 6 Pack Fuel, then click on the display tab at the top and use the drop down option to choose LED/Output

Then click okay and go to the next option where you assign the next LED - Pin and settings as before.

