

Integrating a Fusion Brain (FB) into Road Runner (RR) using Road Runner Fusion (RRF)

Result - Turning on/off a Light Bulb

This document will provide Requirements, Parts, and Instructions and if we do it correctly RESULTS!

First a little insight from Batmaninls. I'm learning how to use RR myself and what its capabilities are. With the help of several people on this forum I have been able to complete parts of my project and I wanted to thank them all by providing this documentation for others to use.

Project - Integrate a FB to RR and use RRF to control the turning on/off of a light bulb. I know it sounds basic but if you're like me this is really going to help you out. If you can understand the basic it is easier to turn on/off the lights on your car using a computer.

Requirements:

Software

Road Runner installed and running using a skin of your choice.

Road Runner Editor

Fusion Brain Drivers (<http://www.fusioncontrolcentre.com/FusionStore/catalog/software.php>)

Fusion Control Centre Uber MDX Edition (<http://www.fusioncontrolcentre.com/FusionStore/catalog/software.php>)

I downloaded this application as well. You get the .net framework and Microsoft® DirectX 9.0c along with the install)

Road Runner Fusion (plug-in) for Road Runner (hats off to Sonicxtacy02 for creating the plug-in)

Located here: <http://www.mp3car.com/vbulletin/rr-plugins/119600-rrfusion-my-fusion-brain-plugin-rr.html>

.net framework 3.5 (2.0 MIGHT work, but 3.5 for sure)

roadrunner SDK enabled version (any recent version will work)

Fusion Brain installed with drivers.

Recommended minimum 1ghz processor.

Hardware

1- Fusion Brain (you can purchase from the mp3car store or <http://www.fusioncontrolcentre.com>)

1- USB cable. (Note to self - If you're smart when you purchase the FB you should buy the one with the USB cable and the power supply connector. I did and it made it a little less work rounding up everything.)

1 or 2 - Power supply I'm using two AC to DC power supplies 12v output is what you want to have.

(I'm sure you could use one but for me it was easier to understand this way.)

1 - 25A -30A Relay (You can purchase from the mp3car store or <http://www.fusioncontrolcentre.com> or at a store near you.)

1- Roll of 22 gauge wire. (This is for testing you can purchase a ground color and a positive color if you would like)

1- Small 12v light bulb and socket to screw it into.

1- (Box or Board) to mount Fusion Brain, Relay and Light bulb on. (Totally optional)

Let's get started!

Installing Fusion Brain

Plug in the FB and then connect it to your computer using the USB cable. You should get a notice of new hardware (in XP I did at least). That's a good thing...

Installing the Drivers

After downloading them from the web site (<http://www.fusioncontrolcentre.com/FusionStore/catalog/software.php>) you can unzip them and remember where you unzip them to. I just unzipped them to my desktop. I like keeping it simple.

Then install the drivers. In XP after the computer has found the hardware it ask you to set it up.

So use the drivers you just downloaded.

Ok after you install the drivers you should be able to go in to the **Device Manager** (XP) and see **FusionControls** and under that **Da Fusion Brain**. SUCCESS!! You have the Fusion Brain Driver install so the FB is ready to talk to the computer. Congrats...

Installing Road Runner Fusion Plug-in

First off you have to get it right! In the forums go here:

<http://www.mp3car.com/vbulletin/rr-plugins/119600-rrfusion-my-fusion-brain-plugin-rr.html>

Now scroll down till you see the link www.sonicxtacy.com/rrfusion.rar Download the plug-in and read the README.txt file.

Here is what it says...

Sonicxtacy02's RRFusion Fusion Brain Plugin

REQUIREMENTS:

-Road Runner (SDK enabled)

-.NET 2.0 (may need 3.5)

-Fusion Brain, tested firmware date of april 2008

-Latest HARDWARE drivers for fusion brain. Found here:

<http://www.fusioncontrolcentre.com/FusionStore/catalog/software.php>

(quick way to see if you have the correct drivers installed is to go to device manager, Search for a "FusionControls" key and a value of "Da Fusion Brain", if your brain is plugged in and u've installed drivers and dont see this your driver is out of date.

Installation:

-Unzip RRFusion folder wherever u want it

-Run the RunMe1st.cmd file

-Add x,rrfusion to your chosen skins menu.skin

-Add files in SAMPLE SKIN folder to your chosen skin folder

-Open skin.ini and configure based on listed instructions

MAJOR CHANGE FROM PREVIOUS VERSIONS:

-RRfusion.ini exists in RRFusion's .dll folder. This .ini file contains settings for decimal place values AND analog input types. PLEASE REMOVE ANALOG INPUT TYPES FROM SKIN.INI AND RR.INI. THESE VALUES SHOULD ONLY EXIST IN RRFUSION.INI.

FBAUTOCONNECT = TRUE/FALSE MUST STILL EXIST IN SKIN.INI OR RR.INI.

Notes: This plugin would not be possible without contributions from the following:

-MP3CAR member mx270a- provided .net source and created base functions

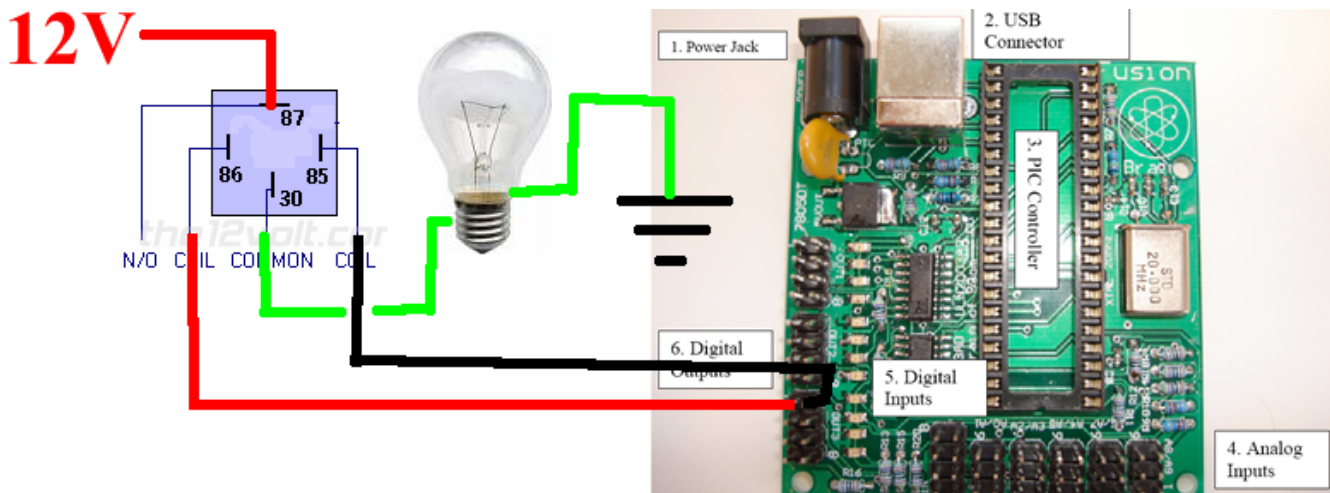
-MP3CAR members GREENMAN100 and 2K1TOASTER- founder and creators of the fusion brain

-BETA testers MP3CAR members W3BMASTER, JOHNWPB, BLUEZX3, and -zip-

Setup FB and Relay and Light Bulb (Thanks to h3rk for the diagram)

Here is our goal to turn on that Light bulb! So set this up to look like this..

We are almost ready to give it a try.



Note: Please see the pin location Information here

(http://www.fusioncontrolcentre.com/FusionStore//catalog/faq_hardware_004.php)

Ok now this is very important.

Look at the Port# and Pin# This might drive you nuts but if they are not done correct you will never get the little light to come on trust me..... lol

These should be the yellow pins by the way they are yellow on mine.

Port #	Pin #
0	4
1	5
2	6
3	3
4	1
5	2
6	7
7	0
8	8
9	9
10	10
11	11

With that setup we just have to setup up RRF in RR and we should get light when we hit a button...

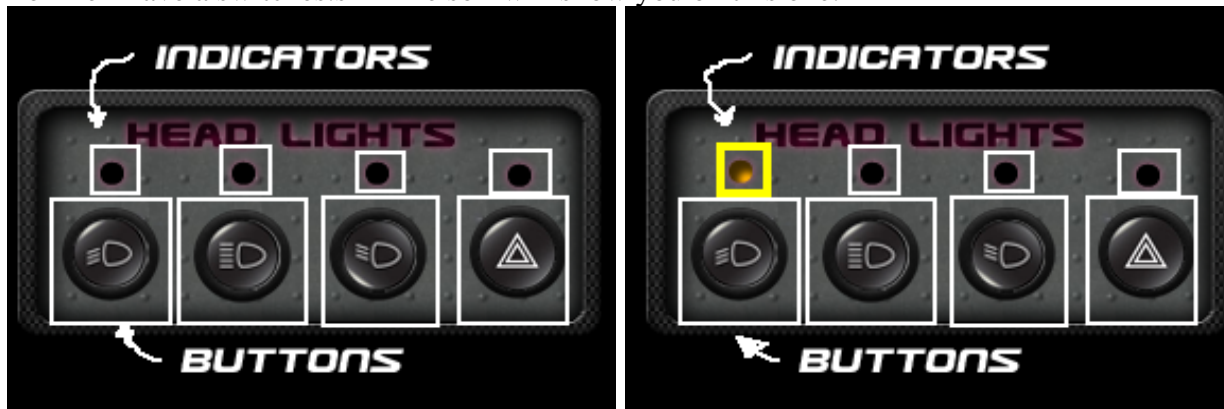
Setup of Road Runner Fusion in Road Runner

Thanks to GizmoQ for a little input here.

Using Road Runner Editor

On the menu.skin file you need to add **X,RRFUSION** and save the file.

For me I have a switches.skin file so I will show you on this one.



Here is what my Viral Editor looks like on my switches.skin page

```
/Buttons This is the defined area to click on  
B01,28,221,56,61,"DIGITALOUT1TOGGLE","Parking"
```

```
/Indicators Tells you its on in the application  
I01,47,195,22,23,"DIGITALOUT1STATUS"
```

```
/Label Telling us that the FB is connected (this way you know that the FB is listing and that all is good)  
L05,15,450,105,20,255,255,255,10,"Arial:B","BYIND;FBCONNECTED;= <<=Brain Active","RIGHT"
```

Ok if you built a switches.skin for testing lets save it.

Next let's look at the FB and make sure it's on the correct Pins.... Lol Real Important!

If you have it set up on DIGITALOUT1TOGGLE (port#1 and Pin#5) then you need to have the wire hooked up to Pin #5. NOT Pin#1 with that checked and correct.

Are you ready?

Ok launch RR and load the file you added the button indicator and label for the FB.

Now when you get there you should see the FB is **active**.

If you get the **Active** notice your close....

Click on the button!

You should hear the relay kick off and the light bulb light up!

You have done it.... Congrats!

Now with this knowledge you could turn on/off your Headlights or with a little more work open you trunk or who knows...

Well I hope this helps you understand how the FB and RRF can be used to turn your computer into a device to run your entire car... That's my goal and with a little more work you can do it to...

Good luck!

Again I would like to thank every one of you that have helped me figure this stuff out and my project thanks you as well.

Batmaninls

Here is what I'm doing with my RR, FB and RRF



