

VFR Discussion → VFR TECH → Modifications



5th Gen Frankenviffer

Started by redmarque, Jul 27 2007 08:35 AM

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redmarque

Posted 14 April 2008 - 03:24 PM

Here's the linkage

The red dots show where cross bracing needs to be added from one side to the other.

in each end there are bearing bronze bushes - a system like this requires zero slack in the linkage



3 Red dots to the left show the scissor pivot points



Dot to the right of the picture under the steering yoke marks the location of rose joint linkage to the forward pivot.



Now you're probably wondering why i've included this extra linkage -surely I could attach the yoke directly to the forks?

Because the top wishbone pivot is further back than the handlebars - it would need link arms that could change lengths!

Plus if I used a scissor linkage from yoke to fork the ratio of bar movement to wheel turn wouldn't be 1 to 1! weird steering! 🤪

Also a rake of 15 Degrees also moves the headstock further forward - making a BIG stretch to the bars
Hope i'm making sense? 🤔

redmarque

Posted 27 April 2008 - 03:23 PM

SEBSPEED, on Apr 27 2008, 03:20 PM, said:

360lbs + electrics, guages, coolant, etc, (gas = 30lbs/5gal), my guess for final weight with paint ready to ride is 405-410lbs. Very

nice, right about what a CBR weighs! 🤔

Cheers Seb! 😊

Spent the afternoon measuring for all the stainless bolts needed to fix everything correctly, 61 so far. Interesting to note that the VFR engine bolts are M10 fine thread

ECU is going to be mounted behind the airbox and stock connectors for speedo/rev counter are redundant as I've bought a Vapor unit! should save a few more grams chopping the loom too.



[Vapor Spec - Link \(http://www.trailtech.net/75-704.html\)](http://www.trailtech.net/75-704.html)

redmarque

Posted 09 June 2008 - 04:15 PM

Sometimes - 'other' things gets in the way of bike building. So I thought it was about time I posted a little update on the bettle VFR.



Cooling system is now complete with silky silicon hose, stainless hose clamps and ducati 916 radiator.

R1 Caliper mounts added - parts for the earls hoses are waiting to go on.

Coils are mounted on a aluminium bracket on the left side of the frame between the engine and frame.



Don't worry the frame look squewd as it's unbolted for now. Crankcase breather on the rear rocker cover has been re-welded to miss the frame tube.

Airbox has been modified to fit around the frame tube.
Front of the box is going to have 2 entry points for the ram air mod.



Finally standing back and admiring....oh yeah 😊



Guest_vfrider_*

Posted 11 June 2008 - 10:45 AM

Red Marque,

Nice job so far. Don't know about that radiator location, but like the effort.

May I make a suggestion for the rear, though.

[NR replica \(http://poly26.com/carenage-honda-900-cbr-kit-nr-replica-1992-1999_2-29.html\)](http://poly26.com/carenage-honda-900-cbr-kit-nr-replica-1992-1999_2-29.html)

It would be killer.

Larry
VFRrider

redmarque

Posted 12 June 2008 - 04:33 AM

Unless I get a radiator fabricated to go under the seat this seems to be the only option for now - i'd really like a wedge

shaped one from a late GSXR would be slightly narrower and taper towards the base.

Posted Image the 916 one was only \$30

Tail fairings are really a matter of taste - i'm into the minimlistic look of the new fireblade and like integrated indicators like a gsxr1000.

the NSR tail is very cool especally the fin air intakes very ferrari! 🤖

redmarque

Posted 13 June 2008 - 03:36 AM

rhubarb, on Jun 13 2008, 09:25 AM, said:

redmarque, on Apr 14 2008, 02:24 PM, said:

Plus if I used a scissor linkage from yoke to fork the ratio of bar movement to wheel turn wouldn't be 1 to 1! weird steering!



Tony Foale experimented with this as well. Apparently not as weird as you might think.

Yes that's right - the riders he tried it on got used to the change very quickly. Interestingly the old Ner-A-Car has a 3-1 steering ratio on it's centre hub steering <http://thekneeslider.com/archives/2007/10/...r-vintage-fest/> (<http://thekneeslider.com/archives/2007/10/29/rare-ner-a-car-rolls-up-at-barber-vintage-fest/>)

It's seams that most of the 'new' ideas have been done way before! 🤖

redmarque

Posted 13 June 2008 - 08:49 AM

thereisnospoon, on Jun 13 2008, 02:01 PM, said:

Wow, this has been an amazing read! I'm curious what your background is redmarque? Obviously you know what you are doing. And... of course, will there be a kit?

Thanks! 🤖 I take it from your username you aren't the 'one' then?

Firstly i'm really no engineer! I started life with one of those father's who gave me technical lego and was a member of the Vintage Motorcycle Club!

I left school at 16 and went to the local college to do a foundation in art and design - went onto Central Saint Martins College of Art & Design in London to study honors Degree in Product design. Somehow after finishing (spending more and more time with computers) I've ended up as a IT Manager for an investment bank!

I had a lot of 'help' on this project but have tried to do as much as I can myself - I guess you could say I had a fair idea what to do, but only after reading Tony Foale's book and working with my now good friend from essex wheels and engineering.

As for a kit? who know's? I'm pretty sure that it 'should' handle well, i've even thought about adding a steering damper! 🤖

I can't wait to see if it works! 😊

redmarque

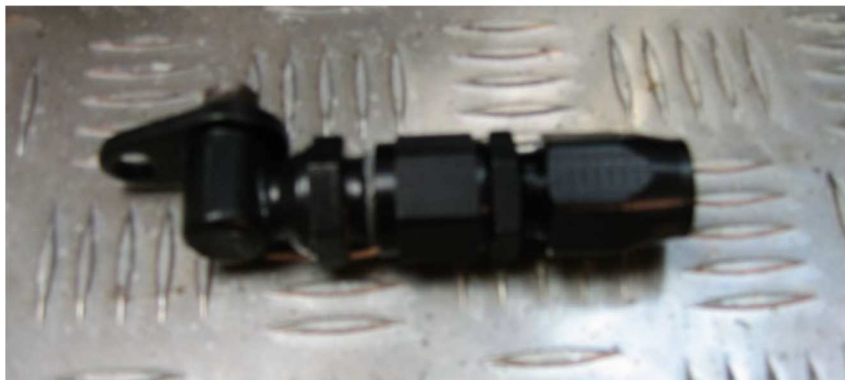
Posted 16 June 2008 - 03:34 AM

As requested a 'cockpit' view.

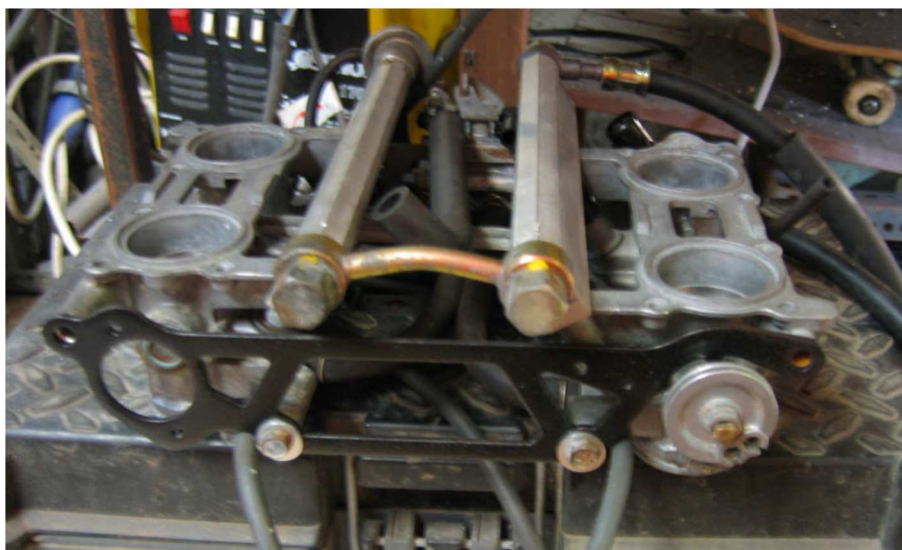
My, what a mess! 😊



I've modified the standard oil cooler take-offs to except earl's hoses



Sanded down and painted the throttle body side plates Satin Black, will change out the standard bolts to stainless (shiny)



Didn't really like the huge standard caliper so i'm modifying CBR600RR rear caliper to fit above the swingarm - should keep the dirt off and look trick.

I'd like to put the hose though the swingarm aswell



tok tokkie

Posted 16 June 2008 - 04:34 AM

What you propose for the rear brake is novel. Like the front end is.

What I notice about your workshop is more how small the space you have created this in rather than how cluttered it is.

redmarque

Posted 03 July 2008 - 06:07 AM

The other side... 😊



Exhaust system is coming along, i've modified the front down pipes to miss the radiator and cooler. Early cbr600 pipes have that same size header tubes

Stock pegs are a temporary solution until I finish the bespoke rearset design, also good to take measurements from for the rearset relationship to engine and swingarm mountings.

DarkKnight

Posted 03 July 2008 - 11:03 AM

...Wonderful project. Reminds me of the Britten (in concept). Subscribing.

redmarque

Posted 23 July 2008 - 03:24 PM

After much adjustment, fabrication and head scratching (standing and looking at the bike) 🙄

I've finally got around to the rearset design! way way back last year I decided that the stock 5th Gen footpeg hangers look disgusting...

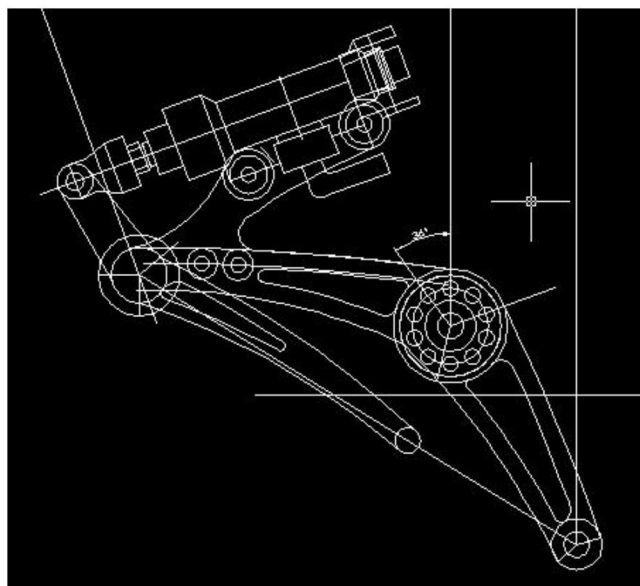
The structural elements of standard 5th gen hangers are very good - especially using the swingarm pivot as a mounting point.

But as you know there isn't any adjustment! I've tried various designs trying to allow for some forward and aft movement - none of which look any good!

Here's attempt number 14 (left side rearset) It has height adjustment only - 3 positions at 36 degree increments. Brake lever in this pic is shown lower than final design so that it can be seen against the hanger

Heal plate design is to be finalised afterward as 3mm plate aluminium can be easily fashioned by hand.

Would most appreciate you guy's input! 🙏



SEBSPEED

Posted 23 July 2008 - 04:18 PM

What?!? And here I thought you weren't posting because you were busy riding it already...

http://www.vfrdiscus...tyle_emoticons/ (http://www.vfrdiscussion.com/forum/public/style_emoticons/)
default/tongue.gif

Looks good, do it up! 🙏

Guest_vfrider_*

Posted 23 July 2008 - 05:22 PM

I know you love fabricating, but there are some real nice rearsets on Ebay for the NC30-35 or even the NSR series.

Larry
VFRrider

redmarque

Posted 24 July 2008 - 12:28 AM

vfrider, on Jul 23 2008, 11:22 PM, said:

I know you love fabricating, but there are some real nice rearsets on Ebay for the NC30-35 or even the NSR series.

Larry
VFRrider

There very nice rearsets too..

Posted Image

Mounting on the 5th gen engine/swingarm would be interesting?

tok tokkie

Posted 24 July 2008 - 03:38 AM

LH side with the brake! Yea I had a Triumph Tiger Cub and a Vincent Comet like that but things have moved on since then.

redmarque

Posted 24 July 2008 - 03:44 AM

tok tokkie, on Jul 24 2008, 09:38 AM, said:

LH side with the brake! Yea I had a Triumph Tiger Cub and a Vincent Comet like that but things have moved on since then.

My mistake! it's supposed to be the right side! from what i've done so far - Do you think you could make these Tok?



vfracer750

Posted 24 July 2008 - 08:39 AM

Redmarque,

Very cool project. Good luck! Looking forward to seeing it on the road.

Quick question, where did you source the silicone radiator hoses? The 3rd gen hoses have been discontinued by Honda and I've been looking for a substitute. Currently I have something cobbled together with 4th gen hoses. But silicone hoses maybe a good solution.

TIA,

Roger

redmarque

Posted 24 July 2008 - 08:59 AM

vfracer750, on Jul 24 2008, 02:39 PM, said:

Quick question, where did you source the silicone radiator hoses? The 3rd gen hoses have been discontinued by Honda and I've been looking for a substitute. Currently I have something cobbled together with 4th gen hoses. But silicone hoses maybe a good solution.

Thanks for the encouragement!

The hoses i've used are all made from straight sections and 90 degree beds from Ebay.

1" from thermostat to rad, 7/8 for the pump to cylinder heads and 1/2 for smaller bore stuff all joined with aluminium joiners and stainless hose clips.

If you need to get a straight pipe to go around a curve. I fabricated a hose cover from sheet ali - i'll find a pic tonight to explain better.

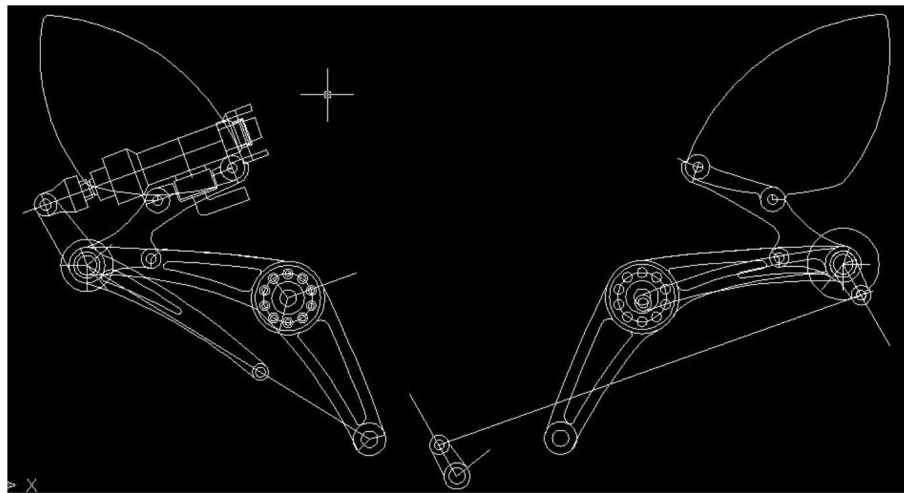
hope this helps! 🙏

redmarque

Posted 10 August 2008 - 01:55 PM

Projects hossackviffer's going a bit slow recently (5 weekends in a row with my kids)

Meanwhile the both rearsets are in CAD.



I've mocked up the design in 10mm MDF board.

The 10 holes will be threaded for 6mm grub screws to allow the swingarm bolt to be recessed. Brake cylinder mount will be 6mm thick Ali.

I've sourced rear Yamaha R1 footpegs which will need to have a slot cut through the middle for the return spring.

Lever pivots will be bushed with bearing bronze to prevent wear.



MtnRider

Posted 11 August 2008 - 03:14 AM

I soooo want different rearsets for mine. Care to make an extra set 😊

Your work has been awesome to follow, thanks for the report.

redmarque

Posted 11 August 2008 - 03:25 AM

MtnRider, on Aug 11 2008, 09:14 AM, said:

Care to make an extra set 😊

Yep totally agree 5th Gen pegs are grim! 🙄

Hopefully I will offer a group buy if anyone's interested after the first prototype set is made - i'll need to measure up on the 5th Gen rear master brake cylinder as this ones a CBR600RR one - also the banjos on the 5th Gen rear brake

are hardlined to the Combined Braking System, so positioning maybe an issue.

Cheers Dude! 😊

Vee-Ef-Ar

Posted 11 August 2008 - 03:53 AM

I'm lovin the progress mate.
I bet she thought she was going outside for a run.

You might have already said, but what color will we see that frame in? Or am I being too nosey now? lol

redmarque

Posted 11 August 2008 - 04:40 AM

Frame and swingarm are going to be satin black - undecided on paint or powder coat? tank,bodywork and wheels in gloss black (always did like vintage bike look)

Was thinking of sandblasting and lacquering the engine once it's been for a test run, should make a nice contrast.

I've been labouring on the loom for some weeks now too 😊, it's been completely stripped and shortened. Standard connectors are being replaced with waterproof ones like ducati use. 😊

Rabbid

Posted 14 August 2008 - 04:04 PM

Vee-Ef-Ar, on Aug 11 2008, 03:53 AM, said:

I'm lovin the progress mate.
I bet she thought she was going outside for a run.

You might have already said, but what color will we see that frame in? Or am I being too nosey now? lol

Wow just saw this AMAZING. Just bought a 5th gen engine the other day and was getting ready to start my own project but Hell if you maybe planning on selling frames I'll wait and just do the build up on my engine so it's ready for your frame.
I want one!!

redmarque

Posted 15 August 2008 - 01:14 AM

Rabbid, on Aug 14 2008, 10:04 PM, said:

Wow just saw this AMAZING. Just bought a 5th gen engine the other day and was getting ready to start my own project but Hell if you maybe planning on selling frames I'll wait and just do the build up on my engine so it's ready for your frame.
I want one!!

Thanks for the complement! 🙏

Unfortunately I'm planning on a 1000cc V-twin version if this front-end is successful. Possibly in aluminum too. If you're still mad and would like to build your own PM me and we can discuss offline 🙏

SEBSPEED

Posted 14 October 2008 - 07:56 PM

Well sir, it's been a while... have you any updates for us to drool over?

MtnRider

Posted 15 October 2008 - 07:06 PM

and updates on the availability of your awesome rearsets! 😊

Vee-Ef-Ar

Posted 24 January 2009 - 01:37 AM

Finished yet??



redmarque

Posted 24 January 2009 - 05:58 AM

Vee-Ef-Ar, on Jan 24 2009, 06:37 AM, said:

Finished yet??



To be honest progress on the hossackviffer has been very slow! 😞

Life gets in the way of a good project!



I've had to cut and move the rear suspension mounting 25 mm left and re-weld!

Remake the frame - engine spacers

Move and weld on coil mounts

The steering scissor linkage has also been remade to allow for full suspension movement

Notched out the tubes in the forks to allow for greater turn on the steering lock

re-designed the rising rate front suspension linkage using a rear suspension dog-bone.

Replace front shock spring

and much more!

BTW I've put the rearsets on hold until everything else is working!

Hopefully I've got the time to get her running soon, as I've been made redundant last week!

http://www.vfrdiscus...tyle_emoticons/ (http://www.vfrdiscussion.com/forum/public/style_emoticons/)
default/sad.gif