OVERLAYS SPORT DATA ON RECORDING	NO	NO	NO
PHONE	**GOPRO HERO4 BLACK**	**GOPRO HERO4 SILVER**	**GOPRO HERO (2014)**
APP PLATFORMS AVAILABLE	IOS/ANDROID	IOS/ANDROID	NOT COMPATIBLE
USE AS REMOTE CONTROL	YES	YES	NO
STREAM LIVE VIDEO PREVIEW	YES	YES	NO
RECORD VIDEO FROM CAMERA	YES	YES	NO
SOFTWARE	**GOPRO HERO4 BLACK**	**GOPRO HERO4 SILVER**	**GOPRO HERO (2014)**
APP FOR COMPUTER	GOPRO STUDIO	GOPRO STUDIO	GOPRO STUDIO
ACCESSORY	**GOPRO HERO4 BLACK**	**GOPRO HERO4 SILVER**	**GOPRO HERO (2014)**
REMOTE CONTROL BUTTON/KEY	YES	YES	NOT COMPATIBLE
DIVING CASE	INCLUDED	INCLUDED	INCLUDED
MOUNT TYPES	**GOPRO HERO4 BLACK**	**GOPRO HERO4 SILVER**	**GOPRO HERO (2014)**
HEAD STRAP	YES	YES	YES
HELMET STRAP	YES	YES	YES
HANDLEBAR/SEATPOST	YES	YES	YES
TRIPOD	YES	YES	YES
SUCTION CUP	YES	YES	YES
CHEST HARNESS	YES	YES	YES
WRIST STRAP/HOUSING	YES	YES	YES
ROLL BAR	YES	YES	YES
SURFBOARD	YES	YES	YES
CURVED ADHESIVE	YES	YES	YES
FLAT ADHESIVE	YES	YES	YES
ADJUSTABLE MOUNTING ARMS	YES	YES	YES
DEVICE CONNECTIONS	**GOPRO HERO4 BLACK**	**GOPRO HERO4 SILVER**	**GOPRO HERO (2014)**
MICRO-HDMI	YES	YES	NO
USB CONNECTOR TYPE	MINI-USB	MINI-USB	MINI-USB
AUDIO 3.5MM STEREO MIC	ADAPTER AVAILABLE	ADAPTER AVAILABLE	NO
PURCHASE	**GOPRO HERO4 BLACK**	**GOPRO HERO4 SILVER**	**GOPRO HERO (2014)**
AMAZON LINK	LINK	LINK	LINK
CLEVER TRAINING LINK (SAVE 10% WITH DCR10JKW)	LINK	LINK	N/A
DCRAINMAKER	**GOPRO HERO4 BLACK**	**GOPRO HERO4 SILVER**	**GOPRO HERO (2014)**
REVIEW LINK	LINK	LINK	LINK
COPYRIGHT DC RAINMAKER - UPDATED NOVEMBER 14TH, 2014 @ 3:30 AM			NEW WINDOW

Again, don't forget you can change up the units above and create your own comparison charts via the product comparison tool here.

SOME THOUGHTS AND RECOMMENDATIONS:



I know many will be trying to compare different models of action cams and looking for some general recommendations. As always, these recommendations will shift with the winds as soon as new models come out. Such is technology, constantly changing. Still, I don't expect any new action cams between now and CES (first week of January), so – these recommendations will hold for now.

In general, I'd group folks into the following categories:

Best video quality money will buy in an action cam: For those in this category, there's simply no question it's the Hero4 Black. Specs alone dictate this, and thankfully the camera backs up the specs from a delivery standpoint. There's just no other action cameras on the market today doing 4K at full frame rates (*Correction: There's apparently this camera, but it's pretty wonky being two separate pieces*). Of course, the real question is – does this matter? For most people, probably not. You'd likely be hard pressed on today's screens to tell the difference between 1080p and 4K, let alone 2.7K and 4K. Still, for the reasons I outlined in the 4K section above, there's certainly value in such a camera.

An all around action cam: For this, it's tricky. On one hand the GoPro Hero4 Silver is solid, but at the same time, it's also a bit overpriced compared to other offerings. They effectively bumped up the price to $399 from what was sub-$300 before. At that price you're paying double something like the VIRB Elite or Sony Action cams, but of which have more features/functionality (i.e. sensors like GPS, altimeters, etc…). Sure, the Hero4 Silver can do 2.7K video at full frame rates, but for most people, that won't matter.

A budget action cam: This is where things get really interesting. GoPro dropped the bottom of the price floor with the $129US price point. That's an incredible price, especially for such a quality cam as the Hero base. At the same time, Garmin more or less countered with VIRB units now at $129US, and flirting every few days with $99US. The VIRB base unit is more functional in every possible spec category than the 2014 Hero base (or equal in those not exceeding). The only area where the Hero base would be considered better is size, with being a fair bit smaller. If you plan to put it on your head, you might notice the size increase, but if you're more into bike/car/etc mounting, it won't matter.

As for a few other comparative thoughts to consider…

Mount considerations: There's no question that GoPro has the most mounting options out there when you include 3rd party mounts. But I wouldn't let that be the deciding factor. Virtually every other action cam on the market includes a GoPro mounting adapter, so that kinda becomes a wash.

Availability of accessories: When it comes to finding spare parts like a battery pack during a trip, you'll find no wider availability than GoPro parts though. In every airport on this planet and in just about every terminal of those airports, you'll find GoPro parts. I was blown away over the past month as I travelled to find that Hero4 parts and cameras were easily accessible in all sorts of random places around the globe, airport or just shopping plaza – mere weeks after launch.

Editing Tools: GoPro's offering is good (not great, but good), and makes it relatively easy to edit videos. On the flip side, you can edit GoPro footage in most other software video apps – many of them free.

Mobile Apps: When it comes to phone apps, GoPro's is far and away the best. While most allow you to change settings, not all other companies allow streaming of content or transferring of photos and videos, all quickly and easily. This can be a major benefit when you're trying to get content somewhere quickly and share it. Further, the quick turning on/off of WiFi via a solid button press on the Silver/Black is awesome. It's just quick and painless.

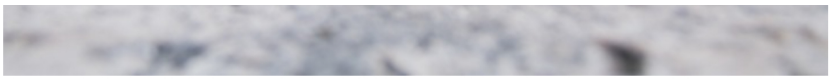
Hero4 Silver Touchscreen: This is cool, no doubt, but at the same time, for my particular use cases it's less important. Usually if I'm mounting a camera to a bike or to my helmet, I can easily check framing via the GoPro mobile app display. And the same goes for playback via the phone app. On the flip side, my wife loved the screen and much preferred having that unit over the other GoPro's, purely because of the screen.

Battery: While the Hero4 Silver and base have good and competitive battery life, the Hero4 Black's battery life is just downright bad. Only an hour? It's somewhat ironic as the target audience for that model is likely to shoot *more* video than the lower models. Still, you can relatively easily solve that with extra spare batteries. Ultimately I'd say the decision to go Black will simply pivot on whether you care about 4K video or not.

Ultimately, you'll have to balance the pros and cons of each of the components, along with price, and figure out what unit works best for you and the set of circumstances you'll use it for.

SUMMARY:





Like previous years, GoPro has continued to raise the bar on action cameras from a specification standpoint – in particular, within the resolution and video/photo quality department. That aspect alone will no doubt make it a must have for those wanting the best video quality money can buy in an action cam.

Meanwhile at the budget end of the spectrum, they've forced other companies to slash prices to compete with the new $129US GoPro Hero. While this unit isn't as full featured as other competitive products that are now priced the same or less, it is a rock solid option.

The next year will no doubt be interesting to watch for GoPro, especially going into CES with what will undoubtedly unleash a slew of new action cameras into the market. With GoPro pushing prices up $100 on their two top units, I'm not fully convinced that the bulk of consumers will follow to the higher end. I think their base model is brilliant, but selling the Silver model at $400 will be a hard push to the mid-market. Meanwhile, at least until new competitors get out there, the Black model will likely hold (and rightfully so) the top spot for the upcoming winter.

FOUND THIS REVIEW USEFUL? OR JUST WANT TO SAVE SOME CASH? HERE'S HOW:

CLEVER TRAINING
FOR DCR READERS
use code: DCR10JKW
TO SAVE 10%

Hopefully you found this review useful. At the end of the day, I'm an athlete just like you looking for the most detail possible on a new purchase – so my review is written from the standpoint of how I used the device. The reviews generally take a lot of hours to put together, so it's a fair bit of work (and labor of love). As you probably noticed by looking below, I also take time to answer all the questions posted in the comments – and there's quite a bit of detail in there as well.

GoPro HERO4 BLACK
GBKD9
Best Price $300.00
or Buy New $499.99
Buy from amazon.com

I've partnered with Clever Training to offer all DC Rainmaker readers exclusive benefits on all products purchased. You can read more about the benefits of this partnership here. You can pickup the GoPro units through Clever Training using the links below. By doing so, you not only support the site (and all the work I do here) – but you also get to enjoy the significant partnership benefits that are just for DC Rainmaker readers. And, since this item is more than $75, you get free US shipping as well.

GoPro Hero4 Black
GoPro Hero4 Silver
GoPro Hero Base (Amazon only)

Additionally, you can also use Amazon to purchase the GoPro units or accessories (though, no discount). Or, anything else you pickup on Amazon helps support the site as well (socks, laundry detergent, cowbells). If you're outside the US, I've got links to all of the major individual country Amazon stores on the sidebar towards the top.

Thanks for reading! And as always, feel free to post comments or questions in the comments section below, I'll be happy to try and answer them as quickly as possible.

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TAGS: ACTION CAMS, GOPRO, GOPRO HERO, GOPRO HERO4

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PHOTO OF THE DAY: MY GIGANTIC DUBAI PALM TREE RUN »

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61 COMMENTS

Henry
November 13, 2014 at 4:28 am
Reply
#1

Only one remark: 4K with 25P/30P is useless on a bike! 50P/60P is the only solution for footages from a moving platform on a road/trail!
Therefor the 2.7K resolution with 50/60P is my advice for everyone. The Advantages for post processing (f.e. downscaling or stabilisation) are already mentioned above!
The other great resolution is full HD with 120P. The advantage is a realy sharp video and it's possible to use the slow motion where ever you want in your footage.

Thanks for your great review!
henry

DC Rainmaker *replied*
November 13, 2014 at 4:40 am
Reply
#2

It depends on the roadway. I've got a bunch of footage at 25/30 from the road bike without too much issue. And many people have been doing lower resolution 1080p/30 footage for years without issue.

I agree that the key for 120P was being able to go with HD resolutions.

Reply

Henry *replied*
November 13, 2014 at 7:11 am
#3

Practice says definitely NO to 4K/30P and fast moving! You can't put Full HD and 4K into the same bucket. The higher resolution of 4K is the problem! I'm already cutting 4K videos and the difference in sharpness between 30P and 60P is enourmous when using a 4K Monitor! Never use 4K/30P on a fast moving platform if you wan't a quality footage!!

Indeed, a lot of people used in the past Full HD with 30P, but this was depending on the cam features without the option of 50/60P.

Oscar P
November 13, 2014 at 4:55 am
Reply
#4

Great review Ray! I'm happy to read that my Garmin Virb at $99 wasn't a bad deal at all for someone like me that wants to experiment with action cams.
I might pick up a GoPro at some point though. Seems like they are very solid products.
Note: On the comparison chart: Video Preview Screen for the Silver should that say "Yes" ? Is that right or does that refer to something else?

Reply

DC Rainmaker *replied*
November 13, 2014 at 4:59 am
#5

Yup, a solid deal. I expect we'll see the VIRB pricing hit those levels again soon.

And thanks on the Silver, just corrected the database. Appreciate it!

Reply

Zoltan *replied*
November 13, 2014 at 2:57 pm
#6

Garmin Virb at $99 ????

Where ???

Reply

Oscar P *replied*
November 13, 2014 at 8:09 pm
#7

Amazon (US only as far as I know). Price has been fluctuating between $129 and $99. As I'm writing this comment it is sitting at $109.

Reply

Tim *replied*
November 13, 2014 at 8:52 pm
#8

A quick search on Amazon brings up $109. It has probably fluctuated a little through other sources to hit $99 once or twice.

One note comparing Virb standard to GoPro Hero (base) -- the Hero is waterproof at it's pricepoint, yet the Virb appears to need the optional dive case (another $30 or so).

I keep wanting to upgrade my Hero 2 to something newer that actually works underwater! I have the model with the silly Hero 2 Lens + Case combination that needs the "Blurfix" or new case to fix the case curvature.

Still the Virb base is tempting, kind of wish it included some of the elite features... Yet I don't think the Virb Standard to Elite price difference is nearly worth it (at least now especially)

Reply

DC Rainmaker *replied*
November 14, 2014 at 3:43 am
#9

As Tim noted, it's it $99 once or twice, I expect it to flirt with that more and more going into the holiday sales/etc...

Faisal
Reply

November 13, 2014 at 5:11 am #10

As always, thank you for a cracking review!

With the GoPro Hero 4 out, the price of the Garmin VIRB Elite has dropped. Still on the fence as to which one to get – the Garmin VIRB Elite or the GoPro Hero 4 Silver?

Rick Smits Reply
November 13, 2014 at 5:43 am #11

These GoPros must be tough. After reading the review, came across this link where a crocodile snatches a GoPro!

link to nypost.com



David Manley Reply
November 13, 2014 at 6:33 am #12

This has inspired me to actually start using my Hero3+ Black i bought on holiday recently. I'd really like to get a drone but the legality question in the UK at the moment is putting me off going there.



Richard Reply
November 13, 2014 at 7:05 am #13

Thanks for a great review! You are the go-to guy when it comes to reviews!! :)

I feel that the 4 Black is much slower to start, and to go from "on" to "shooting". Ok, the "quick capture" feature remediates it a bit, but still.

Also, when taking "stills" the max ISO is 800 (Protune on), but in video max ISO is 6400. Why not give us, the users, the option at least to set higher ISO even in stills. Ok, brings more noise, buth much rather noise than motion blur.

I have a 3 black, a 3+ Black and now the 4 Black. Will take a little getting used to the new user interface in the 4. Luckily you can do configuration from the app.



DC Rainmaker *replied* Reply
November 13, 2014 at 7:15 am #14

Funny, just tried a test...startup times:

Hero4 Black: 6 seconds
Hero4 Silver: 5 seconds
Hero base: 3 seconds

Just counting in my head, nothing fancy.



Richard *replied* Reply
November 13, 2014 at 7:23 am #15

Haha, what were the odds?! :)
Compare startup time with the GoPro 3 as well.

If you have any connections to the GoPro people, please forward the ISO thing I mentioned. Should be super easy for them to add the option of higher ISO in future firmware.

Thanks for reply!



DC Rainmaker *replied* Reply
November 13, 2014 at 7:46 am #16

Yeah, I brought 6 action cameras with me on this work trip, but the Hero3 wasn't one of them. :)



Richard *replied* Reply
November 13, 2014 at 8:03 am #17

Hahaha! :)
Ok, on my 3+ Black: "from pushing power button to on": approx 3 sec.
On my 3 Black (not the + model): "from pushing power button to on": approx 2 sec.

Depends a little on what criteria you have for "on".

Reply

Coach Dion *replied*
November 14, 2014 at 1:48 am
#18

Only 6 action cameras... are we slacking off!

andario
November 13, 2014 at 8:47 am
Reply
#19

It´s great to have an integrated LCD, and the image quality is fantastic, but I´d easily trade the 4K image for a good, stabilized 1080p footage. Any recommendations?

Reply

andario *replied*
November 13, 2014 at 8:48 am
#20

BTW Ray, great job, as always.

Zanza00
November 13, 2014 at 9:07 am
Reply
#21

Sadly in Europe (at least in Italy) the virb is quite the same. It's reducing but i can't find it at 130€.

Oh another note, there is a visual difference between fullhd 30fps and 60fps? I am interested in this because i am searching a action cam for my commute :)

Reply

DC Rainmaker *replied*
November 13, 2014 at 9:11 am
#22

It depends on how visually astute you are. Some (such as Henry above), would definitely notice. My wife...not likely. Me, it depends on the situation.

Harvey
November 13, 2014 at 9:39 am
Reply
#23

How does The Girl have such a flat stomach with all those cupcakes at her disposal?

Neil
November 13, 2014 at 9:54 am
Reply
#24

As Zanza00 says - in the UK the Hero Base is ~£99/$160, whereas the cheapest Virb is ~£170/$270, which makes this an easy choice.

Ranapoona
November 13, 2014 at 12:27 pm
Reply
#25

Which is best for video of a tiger encouraging a rider through a route on the outskirts of Paris ?

Reply

DC Rainmaker *replied*
November 14, 2014 at 3:44 am
#26

Funny, read that as well yesterday.

In that situation, I'd go with the Hero base, to minimize costs upon loss of camera/bike/self.

Chris
November 13, 2014 at 12:41 pm
Reply
#27

What was the base GoPro hero like underwater?

Reply

DC Rainmaker *replied*
November 13, 2014 at 4:53 pm
#28

I'll dig up some shots there. Most of my underwater work was with the Silver and Black.

Chris
November 13, 2014 at 1:37 pm
Reply
#29

This *might* be the right place for this... Or at least, pertinent to the same crowd.

I just got the k-edge combo bike computer/gopro mount. I love it- both the out front mount, and now I can always

have a gopro mount ready without it looking ridiculous when unused.

But anyways! When using it last weekend with my hero 3 black and edge 810, the gps traces from the 810 were by far the worst I've ever experienced from the unit. Have you seen this, or a similar thing before? It's not a big deal to me, but I am curious, and I could see others being more bothered by the traces.

Reply



DC Rainmaker *replied*
November 13, 2014 at 4:54 pm
#30

Hmm, haven't seen that before. It's probably worth a double-check and just doing a soft reset on the 810. It might be locked on a satellite it can't find anymore.

Reply

Craig *replied*
November 14, 2014 at 10:47 am
#31

I have noticed my GoPro Hero 3 White interfering with my Garmin Etrex. If they are next to each other, it causes the GPS to often lose the signal, so loads of gaps/inaccuracies in the GPS track. It is very obvious, as soon as I switch the GoPro on, I can see the satellite signal strength drop.
So I now have them on opposite sides of the handlebars, with the GoPro upside down on an out-in-front mount. That keeps them a bit further away, which seems to mostly avoid problems.

Reply



DC Rainmaker *replied*
November 14, 2014 at 11:24 am
#32

Any chance WiFi is enabled on your Hero3? Sometimes I've seen case of WiFi interferring with devices, though, not typically the GPS portion.

Reply

Lars
November 13, 2014 at 1:45 pm
#33

Great review as always. Thinking of getting one in the US but I live in Europe. Do you know if there is any difference? Is the charger 110 - 220 v? Can you play on both NTSC and PAL TVs? Thanks

Reply



DC Rainmaker *replied*
November 13, 2014 at 4:37 pm
#34

Yup, totally compatible 110/210v on any USB port (I live in Europe, but my GoPro's I bought in the US).

And on the second, it supports both NTSC and PAL frame rates, so good there.

Reply

Greg
November 13, 2014 at 2:44 pm
#35

Thanks for an awesome review!

The only thing that makes me say no to the GoPro is it doesn't include the Ant+/GPS feature that the Virbs do.

As far as the Garmin Virbs go is Garmin prepping for an updated version? The prices are dropping with the current models and just make me wonder!

Thanks again Ray

Reply

Scott Buchanan *replied*
November 13, 2014 at 3:28 pm
#36

Agree. If I was back in the market for an action cam today I'd still go for a Virb Elite even if the image isnt quite as good as GP because being able to connect sensors is way more beneficial.

With the Virb now being a year old am starting to wonder when the 2 will be announced?

Reply

miet
November 13, 2014 at 5:32 pm
#37

Is the horseback rider on the beach random???
Great review as always btw

Reply



DC Rainmaker *replied*
November 14, 2014 at 4:01 am
#38

Completely random. I got there about sunrise and there wasn't a single person out there the entire time I was there.

Then out of nowhere I guy goes down the beach on this horse. Luckily, he came back the beach about 3-5 minutes later. It was interesitng though, he was clearly some sort of farmhand worker. No fancy clothes or anything. Then, about 5 minutes later he came back and did the same thing with another horse. Likely just getting them their workouts. Totally awesome though.

You can't tell from the footage, but it had really started raining pretty hard. And the Phantom doesn't do terribly well in those conditions. So just seconds after the horse went by, I had to wrap up.



Gabriel Eguia
November 13, 2014 at 9:18 pm

Reply
#39

Ray

As someone who will primarily use the camera on a bike - would you lean twds the VIRB Elite given the ANT+ integration or does the Go Pro Silver at $150 more offer a product that is far superior?

Any hint on Garmin introducing a new action camera? just a hint - how about a smiley meaning yes something for the holidays or nothing meaning no word.

Thanks!



Henry *replied*
November 14, 2014 at 3:00 am

Reply
#40

In my opinion for bikes the only usable Hero is the 4black when using 2.7K Resolution with 50/60P. This gives you a great advantage for post processing, because the Heros have no electronic stabilisation and the Virb has either. (The Virb is imo the worst action cam in its price region!)
The only cams working perfectly on a bike are the Sony AS-100 and Sony AZ1in XAVC-mode with their great stabilisation function. Disapointing: Sony uses while stabilisation is switched on only a field of view of 120°! Advantage: Half of price in opposit to the 4black when buying with a remote control!



DC Rainmaker *replied*
November 14, 2014 at 3:43 am

Reply
#41

While Henry clearly likes 50/60P footage, the rest of the world has been using other action cams just fine for years (both GoPro and more recently VIRB), at lower frame rates just fine.

With the ANT+ integration and the price points seen recently for the VIRB Elite, it's definitely very solid for cyclists - especially if you're bike mounting and don't care too much about weight.



Henry *replied*
November 14, 2014 at 9:57 am

Reply
#42

I see, we can't come together ;)
Maybe it's realy my special point of view whats a good and sharp footage or not.
In my opinion bike/MTB videos are the greatest challenge for action cams!
Most bike videos are causing headache, they are unsharp, have rolling shutter, a lot of vibrations and are mostly boring endless raw footages (but thats an other thing).
Regarding 4K don't forget, that your TV or computer monitor is working with 60P. A 4K/30P Video on a 4K/60P screen makes you after a couple of minutes crazy. Have a trial!
Under this aspect 4K with moving objects or from a moving platform, especialy from a "restless" bike, makes no sense, not only with the eyes of a cutter.
And now it's enough, thanks for your patience ;)



Eli
November 13, 2014 at 10:14 pm

Reply
#43

No gimbal on the bike?



DC Rainmaker *replied*
November 14, 2014 at 3:41 am

Reply
#44

I actually bought a cheap little steady-cam like thing to play with for the GoPro...kinda seems to suck for the GoPro.



Andy
November 13, 2014 at 10:53 pm

Reply
#45

In your Hero unboxing, you say that the battery is non-removable. Your comparison chart shows that it is. I am

kind of surprised they would sell this without a removable battery.

Reply
#46



DC Rainmaker *replied*
November 14, 2014 at 3:34 am

Hmm, the database name field implied removable, I've just added a note to the entry for the Hero based that it's non-removable. Thanks!



champ
November 14, 2014 at 12:18 am

Reply
#47

Hi Ray,

Very nice video in NZ on the black sand.

Do you think you can do a side by side on the Sony Action cam (the white one) and the GoPro hero 4 silver at 1080p?

Cheers,
champ

Reply
#48

Henry *replied*
November 14, 2014 at 3:09 am

don't wait, have a look on this footage: link to youtube.com

Reply
#49

Henry *replied*
November 14, 2014 at 3:13 am

Sorry, one link forgotten for the real test: link to youtube.com
have fun!

Clipper
November 14, 2014 at 6:31 am

Reply
#50

Hi Ray
Nice review. You didn't cover the feature "Field of view", though. It existed on the hero 3. Is it still present here ? Some doesn't want (need) to shoot in fish eye view.

Thanks



Koen Miseur
November 14, 2014 at 8:03 am

Reply
#51

"At the same time, Garmin more or less countered with VIRB units now at $129US, and flirting every few days with $99US."

Weird i can't find it anywhere in Belgium or the Netherlands for under €169 (or €199 at sites i trust) at that price the GoPro Base is alot cheaper and only really misses the screen and better timelapse.

Maybe u got some sites where people can buy it for that price in Europe or BeNeLux?

Reply
#52



DC Rainmaker *replied*
November 14, 2014 at 8:06 am

I don't know what Garmin's plans are for Europe, those are USD prices.



Nathan
November 14, 2014 at 9:09 am

Reply
#53

How hard is it to fly one of those Phantom machines? Just say for someone who hasn't flown anything before and has some common sense, how long could it take to pick it up and fly around like your video?

Love your work.

Thanks

Reply
#54



DC Rainmaker *replied*
November 14, 2014 at 9:31 am

I think you can get used to it pretty quick, though. I might be hard to judge. Just start very simple in a field