



# MOTORSPORT PHOTOGRAPHY FOR BEGINNERS

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## Introduction

The motorsport world fascinates me from a photography perspective for a range of reasons.

I guess the obvious ones are the speed, action and excitement that it generates in its purest sense. Then there's the colour, people, their personalities and emotions associated with winning, losing and being under pressure that attracts me to the sport.

No matter what level of motorsport I shoot there's always plenty to be looking for to get a unique perspective. And that's the challenge, let's face it, people that don't normally have an interest in motorsport will tell you it can be boring. But I can guarantee that if you capture a cracking motorsport image and show a 'non-believer' it will evoke a positive response. That response, might be a widening of the eyes, a flare of the nostrils or a simple .... 'ok that's cool'. But if you can achieve that with your motorsport photography you're on your way!

From the outset, apart from the speedway shots featured in this blog all others were taken with normal public access.

And that's the hook. Let's go!

## Personal Safety

Yes, motorsport is dangerous not only for competitors. And if you've paid to access your event it's likely you'll be reminded of this on your ticket.

Even if you are shooting from outside the fence you need to maintain a suitable level of awareness of what's going on around you, and adopt sound self-preservation skills.

At most local tracks officials have taken all the right steps in ensuring barriers and run offs are placed correctly based on calculations around speed, centrifugal forces and the category/type of racing.

Depending on the track and level of motorsport you may be able to access the infield. Be sure to be compliant with requirements to sign-in or complete waiver forms and listen carefully to local rules and keep away from nominated exclusion areas. Obey all directions from officials and marshalling staff. Keep absolutely aware of any areas where there is a possibility of you being caught in potential run off areas or situations where there is no physical barrier in front of you. Ensure you wear a vest.

As a species, we subconsciously conduct risk assessments in our mind continuously in everyday life. Be mindful of what your instincts are telling you and when in doubt, re-assess and move.

Adopting any extreme 'risk for reward' approach for getting that killer shot is stupidity! Work within sensible parameters all the time. Practical footwear and lower body protection is essential when moving around more remote and rough ground areas.

Beware of snakes and consider having a small first aid kit in your bag or close by in the car just in case.

In most cases you'll be out in the open. Dress for the conditions and take the usual precautions to protect yourself from the elements. I know that I can be out on a shoot for up to 8-10 hours and not having sunscreen or an adequate water supply can be problematic.

## Equipment

Although I shoot with a [Canon 5D IV](#) I have no hesitation in suggesting that good images can be captured with most decent camera's these days. After all, 99% of success is generated from the monkey hanging off it!

Although, you'd benefit from as much reach and zoom as possible when it comes to focal length and of course, the more megapixels you have at your disposal can help when cropping if you lack a longer lens. Some tracks are going to be harder than others when it comes to the distance you are from the action. But even if you can get close to at least one portion of the track you'll still have fun.

You will benefit as well from a camera that is capable of a decent burst mode, this is especially important when panning, we'll go over that shortly.

A camera with a back button focus capability is also going to improve your keeper rate as well. Google your camera model or refer to your manual to understand exactly what features you have that will enhance your chances of capturing what you need. It's better to know what it can do before you're at the track and getting frustrated at missing all the opportunities whizzing past you while you struggle to understand how to set up.

My most trusted lens is the [Canon 70-200 f2.8](#) and use a [Kenko x1.4 converter](#) on many occasions to get that extra reach at the expense of a stop of light, which doesn't impact on too much of my track shots. I do use the 70-200 quite extensively in and off track, its great in the pits.

I also take with me a Canon 50mm f1.9 that I mostly use for close up low light work if I can get close enough to the track. And I take with me a [Tokina 100mm f2.8 Macro](#) which can be great for portraits in the pits and other low light opportunities.

If you have a polarising filter use it. It's almost essential to eliminate glare off windscreens and metal as well as reducing the reflective properties of decals that are especially prominent on road racing bikes.

A polarising filter will also help with colour saturation and vibrancy. After all, as I've mentioned interpreting the colour associated with motorsport is one of the key targets.

Don't skimp on quality when it comes to filters of any kind. In my case, I use a [Hoya PRO 1 Circular PL](#) and can't fault it.

I have a monopod but rarely use it as I can manage my combination quite well, but admit I do get quite fatigued with the 5D and 700-200 combination as it weighs in at 2.23kg's. I do however use a [Q Strap](#) that does help take the weight when I'm not shooting. Although, I'm always battling with myself to relax and have it dangle by my side.

Use as big as a capacity SD card as you can get. Fast cards around 45mb/s to 95mb/s will serve you well, you will notice the difference with buffering speeds if you don't. I use [Scandisk 64GB](#) capacity SD's and I'm also able to double up with a [32GB 160mb/s compact flash card](#) with the 5D IV. I can manage more than 1000-1200 shots while shooting in RAW with this combination.

## Settings and Technique

Shutter speed is your key camera setting when it comes to working motorsport. It's the primary part of the exposure triangle that determines how much you want to freeze or show movement in an image and what part of the action in an image is the focus of the story you are trying to tell.

There can be a fine line in what will determine whether you, and ultimately the viewer will be interested with the amount of speed or action conveyed in the image. How you decide will be determined what details are what presented and in what way.

For instance, shooting a car, bike or a kart on a road course at a shutter speed of 1/1250<sup>th</sup> of a second will park it there. No dynamics to denote speed, wheels will be stopped, writing on tyres will be legible and everything in the background may be as you see it with your eyes.

But if you were shooting a dirt-bike, or an off-road racer at 1/1250<sup>th</sup> you'll see the dirt spray and debris in detail and that will enhance the viewers experience no end!

The same goes the other way. Best way as a beginner to start mastering this is to work in the 'Shutter Priority' semi-automatic mode in your camera. Set your shutter speed and let your camera figure out the rest.

While we are speaking about automatic modes keep the white balance on auto as well while you are developing your craft. Post processing can attend to the minor issues with that later. Consider leaving your ISO on auto as well as you start off. I recommend using a single point of focus and spot metering, I rarely move away from either of those settings.

If you have a camera capable of back button focus it will improve you hit rates coupled with servo / continuous focus modes. With my 5D IV I'll keep these on while shooting on track. I'll vary those when I'm in the pits or working in a crowd.

Start off at 1/500<sup>th</sup> of a second and work either end of that to achieve what you need. The big thing I try to ensure people do when I coach is to keep a notebook with you. **If you think you've nailed one even via the image displayed on the back of the camera, write the full range of settings down!**

Go into the image data and record, shutter speed, aperture and ISO at the very least. Use it as a reference and after a while, and with plenty of practice deciding on correct settings will become instinctive. I promise you!

I'm currently in the process of developing and printing a dedicated 'Photographers Field Notes' style notebook to make this process easier. You can use the notes app in your phone I guess and there are a few other apps around to help with recording data. But in my opinion having something 'real' and tangible to use to record your notes helps a lot. I'll post when it becomes available on my social media feeds.

Aperture Priority is something to try next this will allow you to be a bit more creative when looking at achieving a shallower depth of field. Remember just like I've already suggested start with an f stop value and work your way up and down from there, taking notes as you achieve what you think you've achieved are what you've been aiming for.

Once you master shooting in semi-auto modes you'll be much more confident when you start venturing in to the world of manual shooting.

### [The Magic of Selecting the Right Shutter Speed](#)

Here are some examples with shutter settings details so you can get an understanding of the difference in playing with shutter speeds.



**Image 1** - Focal Length 78mm, Aperture f10, Shutter 1/60<sup>th</sup> second, ISO 100

In image 1, you can see the benefit of the slower shutter speed giving the no mistake look of speed. We'll cover panning techniques shortly but you will get this look with varying levels from about 1/350<sup>th</sup> of a second and slower. I've managed to get down to 1/60<sup>th</sup> of a second but the keeper rates are low when you're trying this hard.



**Image 2** - Focal Length 200mm, Aperture f4, Shutter 1/640<sup>th</sup> second, ISO 250

In image 2 I've used a much higher shutter speed of 1/640<sup>th</sup> of a second and you can see the detail that can be captured in the mud. I love opportunities like this and compared to panning with lower shutter speeds the hit rate is great. You'll have so much fun when you get home and look at these on your computer and marvel at the detail when you've got it right.





**Image 3** - Focal Length 105mm, Aperture f3.5, Shutter 1/1250<sup>th</sup> second, ISO 320

And here's a reward for watching these guys duel closely for a few laps and deciding to switch to a higher shutter speed in anticipation of some extra action. All four wheels off the deck at 1/1250<sup>th</sup>.

Keep an eye out for duels on the track and the tight and aggressive racing. Set your shutter speed high and follow them for a few laps. The sacrifice might be worth it when you are in the right place at the right time to capture a crash or an off!

## Panning

Panning is a technique that can produce fantastic results but takes a fair bit of practice to get proficient at it.

The trick behind panning is that you move your camera (an importantly your body) along in time with the machine with the aim of getting it sharp and the background and the wheels blurred. This is the ultimate technique for conveying speed to the viewer. You'll get better results when a machine is travelling in a straight trajectory perpendicular to you which allows that you to predict where it will be moving to.

Make sure you're on a high-speed burst mode, remain in shutter priority and start at around 1/350<sup>th</sup> of second and work your way down. I've managed to nail a few at 1/50<sup>th</sup> and of course the hit rates begin to diminish as shutter speeds get lower. Image stabilisation if you have it should be on.

Once you venture into more manual settings consider using a larger f stop, f8 and upwards, this will improve opportunities for getting all of the vehicle in focus.

Here's some pointers for getting some worthwhile results.

1. Plant your feet shoulder width apart with your knees slightly bent;
2. Hold the camera and lock your elbows into your chest and ribs to have a solid foundation for the camera;
3. Twist at the waist, you'll normally get the best shots when you align to the machine when it's directly in front of you. I normally take 3-4 shot bursts; and
4. Follow through with your movement after you have completed shooting - a bit like finishing a golf swing I guess.

Here is an example of what can be achieved with practice.



**Image 4** - Focal Length 200 mm, Aperture f5.6, Shutter 1/125<sup>th</sup> second, ISO 100

In this instance, the water adds so more to the dynamics of the shot when the panning and slow shutter speed combination is applied. Like the earlier image of the SXS buggy in the dirt, the spray and the blurred background conveys everything you need to see to convince the viewer that this thing is going flat out!

### Focus Points

As I've said earlier I use a single focus point, but this is something that can be experimented with and results may vary with different cameras. For panning I generally aim for the front 3<sup>rd</sup> of the machine and for head on shots or less than perpendicular trajectories I'll aim for the helmet or at the very least the fairing when shooting bikes. For cars, I'll look at focussing on the right front quarter panel.

Be careful with other focus settings other than single point especially with very fast-moving machines as they can lock onto items in the background, including other machines.

### Track Shot Types and Composition

The variety and types of shots you can aim to get is bountiful and only restricted by the angles you choose and your imagination. However, here a few of the basics I like to capture;

#### The 'Full Pan'

As we've discussed, left to right, right to left perpendicular to you the photographer.





**Image 5** - Focal Length 126 mm, Aperture f5.6, Shutter 1/320<sup>th</sup> second, ISO 100



**Image 6** - Focal Length 95mm, Aperture f8, Shutter 1/80<sup>th</sup> second, ISO 500

### The 'Semi-Pan'

When using a shorter panning technique when the subject is moving at more of an angle as appose to coming from across the field of view. This can be effective with a lower fstop that will assist in getting more blur in the background. See figure 7 below.



**Image 7** - Focal Length 200mm, Aperture f6.7, Shutter 1/250<sup>th</sup> second, ISO 100

### The 'Low-Down Head-On Shot'

These types of shots don't always convey speed but give perspectives associated with track position and sometime distortion in tyres and suspension attitude. Obviously in off road and dirt configured tracks you will be able to capture even more action.

Here I've used the standard rule of having more room in the front of the car for it to move into but as you'll see amongst some of the other images, I believe some rules need to be broken from time to time as per image 9. It's sometimes interesting to see where car has come from than where it's going.

Look at how you can incorporate the other vehicles in your image as well. Shallow depth of field opportunities for these types of shots can add drama and a sense of who's out front!



**Image 8** - Focal Length 200mm, Aperture f5, Shutter 1/350<sup>th</sup> second, ISO 100





**Image 9** - Focal Length 140mm, Aperture f6.3, Shutter 1/640<sup>th</sup> second, ISO 400

### The 'Bum Shot'

This shot isn't always seen as popular one, but I do try to capture them with varying degrees of artistic value. With image 9 below you'll see that I've used a high shutter speed in anticipation of the action that we all know occurs at the chicane on the Gold Coast track. You'll see that I've kept the car in the bottom third of the track using sound rule of thirds principles. This allows me to add more interest with the corporate boxes and figures in the crowd. Battling with catch fencing is always difficult but it can be made invisible, but in this case, I think it adds to the image.



**Image 10** - Focal Length 85mm, Aperture f5.6, Shutter 1/1250<sup>th</sup> second, ISO 100

Speaking of catch fencing, sometimes a stuff up can be worthwhile working on, here's another one of the Red Bull Supercars at the Gold Coast





**Image 11** - Focal Length 145, Aperture f4, Shutter 1/1250<sup>th</sup> second, ISO 100

While we are talking about using infrastructure to add interest to a shot, here's another one where I managed to use the bridge on the main straight at Phillip Island to frame Chas Mostert's machine.



**Image 12** - Focal Length 70mm, Aperture f5.6, Shutter 1/80<sup>th</sup> second, ISO 100

### The 'Three Quarter Shot'

This is what I call them anyway. It's a shot I like to aim for that captures only a fraction of the subject but still allows for the understanding around action and movement. Mostly always attempting this using a panning technique. Of course, you need to be accurate with your focus point and the hit rate can be low. You can get away with a standard panning practice then cropping later. Ability to get the right ratio and sharpness when cropping obviously will depend on the resolution capabilities of your camera.



Image 13 - Focal Length 155mm, Aperture f5, Shutter 1/160<sup>th</sup> second, ISO 125



Image 14 - Focal Length 75mm, Aperture f7.1, Shutter 1/200<sup>th</sup> second, ISO 100

### The 'Pano'

The panorama shot will give the viewer more of a sense of scale and allows the eye to focus on more of the lateral plane of the image. This apparently is known to be more pleasing to the eye and the brain. I just like em...

A wide angle on the camera at the time or creative cropping in post-production.





**Image 15** - Focal Length 50mm, Aperture f2, Shutter 1/160<sup>th</sup> second, ISO 4000

Notice the extremes in image 12 compared to the others. To be honest I get inconsistent results when using flash (I need to try harder) so by default I've managed to get quite skilled at the low light panning side of things. Hit rates are low but with plenty of practice and a bit of help with being able to shoot at high ISO settings with modern gear these days great results can be achieved.

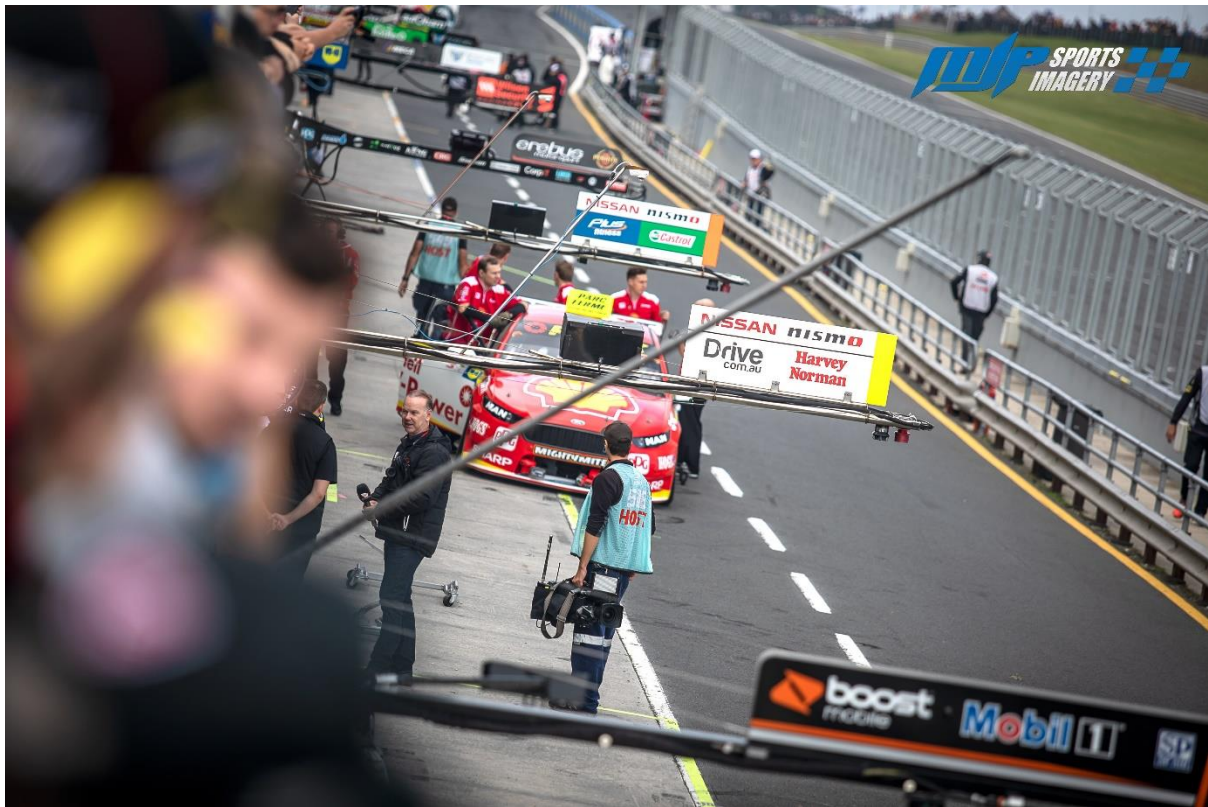
### People Shots

I actually get a big kick out of some of the images I manage to get while off track. In most cases drivers, crews and families are interested in what you're doing and are happy to make conversation. If I ask questions about their cars and how they are performing on the day it tends to get you in a bit. They're normally happy for you to be up and close and taking shots. This is where you can revert back to convectional settings for everyday photography. But if you're starting out altogether stay in the semi-auto modes if you have to and learn from what the camera is doing for you.



**Image 16** - Focal Length 210mm, Aperture f4, Shutter 1/320<sup>th</sup> second, ISO 640





**Image 17** - Focal Length 160, Aperture f2.8, Shutter 1/250<sup>h</sup> second, ISO 160



**Image 18** - Focal Length 140mm, Aperture f3.2, Shutter 1/320<sup>h</sup> second, ISO 100

Right place at the right time with image 16, the great Mick Doohan gives son Jack some support at the 3<sup>rd</sup> round of The Qld Karting Championships at Toowoomba 2015.





**Image 19** - Focal Length 95mm, Aperture f9, Shutter 1/250<sup>th</sup> second, ISO 100

At the bigger events, there is an expectation by the drivers and teams that there are amateur photographers and in large they can be accommodating. Fan signing opportunities are gold mines for the big driver portraits. The crews are doing their thing and there's plenty interesting angles and variable depth of field opportunities.



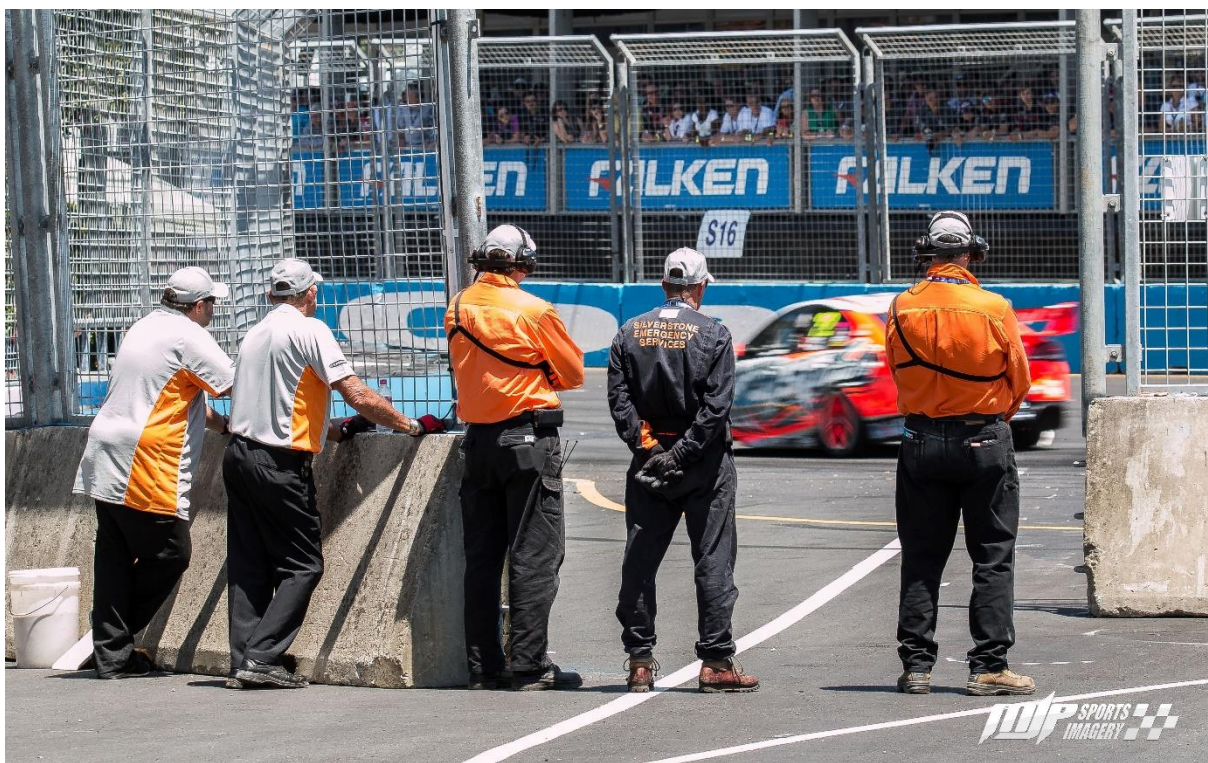


**Image 20** - Focal Length 200, Aperture f2.8, Shutter 1/160<sup>th</sup> second, ISO 4000

### People and Movement

Of course, motorsport is all about things that move fast. So, trying to incorporate this element into your people shots is a given! There's an infinite array of possibilities and quite easy to do. Again, keep in your semi-auto modes but keep an eye on what eventuates and adjust as you need to.

Compose and expose for the people when the action comes past and aim for something like these...



**Image 21** - Focal Length 130, Aperture f4, Shutter 1/80<sup>th</sup> second, ISO 100



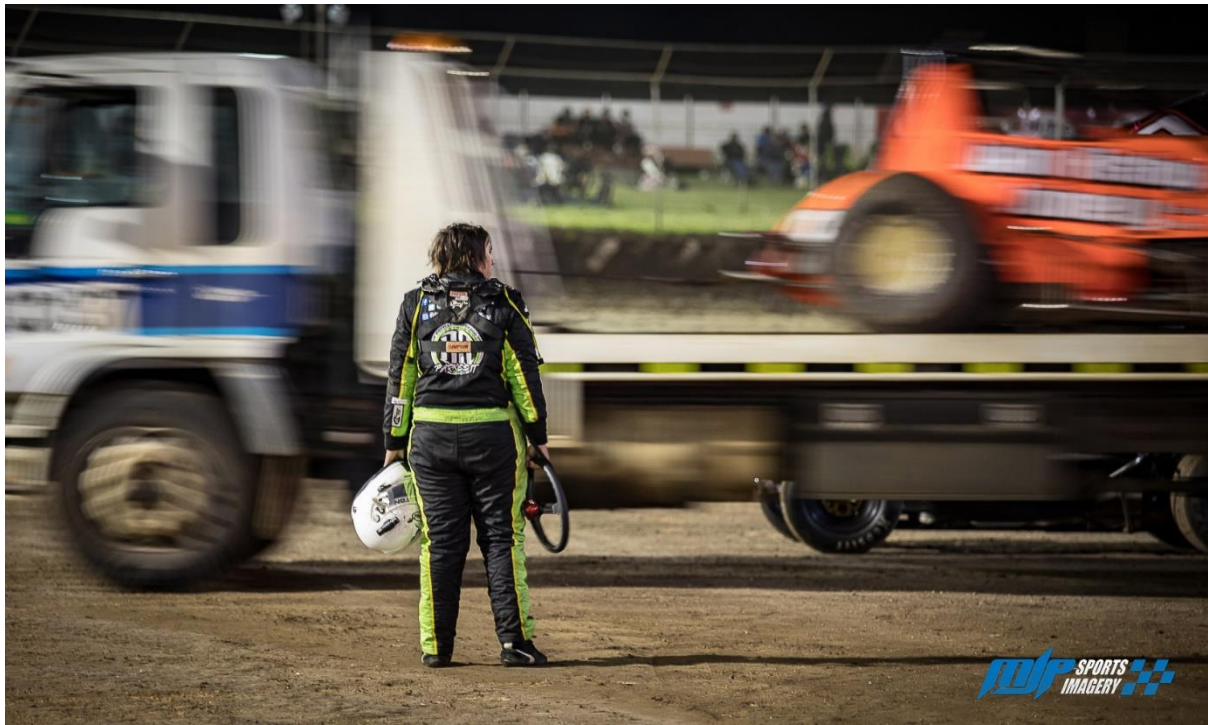


Image 23 - Focal Length 145, Aperture f2.8, Shutter 1/15<sup>th</sup> second, ISO 1250



Image 23 - Focal Length 135, Aperture f8, Shutter 1/100<sup>th</sup> second, ISO 100

### Cockpits and Helmets

Concentrating on these types of shots will guarantee colour and the opportunity to capture tension, jubilation and sometimes anger in the eyes of the racer.

Really good opportunities arise in the pits just as the drivers suit up and get into their machines. Look for when the cars, especially open wheelers are parked with the light hitting the drivers face and highlighting other parts of the car. Karting can offer great opportunities when the driver is so exposed. Some of the helmet art is unreal, colour, colour, colour!



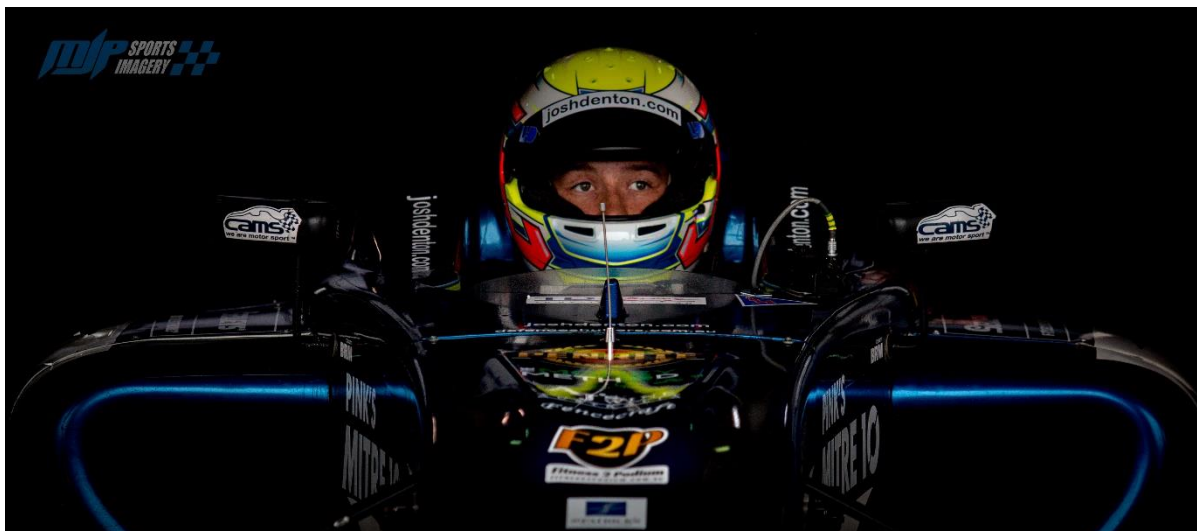


Image 24 - Focal Length 160, Aperture f5.6, Shutter 1/125<sup>th</sup> second, ISO 100



Image 25 - Focal Length 160, Aperture f5.6, Shutter 1/125<sup>th</sup> second, ISO 100





Image 26 - Focal Length 200, Aperture f2.8, Shutter 1/400<sup>th</sup> second, ISO 100

## Summing Up

Well, there's lots more to discuss but as a beginner I hope I've given you enough information and inspiration to get out there and amongst it. I'd put money on it, that as soon as you start nailing some shots and seeing them turn out like you have aimed for you'll be looking for more opportunities.

Learning some good post processing skills and seeing your photos improve from this point of view will also add to the pleasure. I have to admit, I get just as much fun from getting home and teasing the most out of my photos in post-production.

Look around for opportunities to get out, local kart clubs are a great place to start. Access inside the fence is sometimes easier than you think. There's no harm in asking.

Please get in touch via my website, Facebook or Instagram I'd be more than happy to answer and guide if I can. Feel free to send me some of your images I'd love to see them!

Web - [www.mickjonesphotography.com](http://www.mickjonesphotography.com)

Facebook (Photography Page) <https://www.facebook.com/mickjonesphotography/>

Facebook Group (Behind the Catch Fence Photography)

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