



Junior Racer Introductory and Training Programme

Introduction to programme and proposed methods of use

Welcome

Welcome to the Motorcycling New Zealand Junior Training programme templates and methods.

MNZ has identified that there has been little concerted development of junior roadracers over the years in New Zealand. Hence the skills they learn and develop have shown little consistency and have been traditionally based on a “who you know”, or a “just give it a go” or a “just do laps and you’ll get it” basis. None of which are really conducive to quality outcomes.

The result of this is quite low numbers of new junior riders entering the sport and inconsistent quality of the skills development of those riders resulting in not great retention of riders overall and very few riders over the past 25 years or so, reaching high levels internationally.

The FIM and MNZ have therefore identified the need to create some form of junior rider training programme, or modules, that will enable junior riders, parents, trainers and clubs to develop the soft and hard skills that will help everyone to develop into capable and knowledgeable trainers and supporters who will ultimately develop quality junior racers.

The Programme

We identified that the ‘Programme’ needs to cater for junior riders with all levels of motorcycle riding experience. There will be riders and families who will come to the sport with no knowledge of motorcycles whatsoever. Such riders will need to be taught how to ride a bike before they can be taught how to race a bike. Some will come with basic skills, while others will come with some years of dirtbike riding under their belts already. Such riders will be able to start further along in the programme with the more road-racing specific skills and maybe only need fine tuning around the actual bike riding. However, all riders will need to be taught the skills required to ride on racetracks and then how to go actual racing.



The objectives

The aim of these templates is to provide junior riders and their parents/trainers with a workbook that provides a sound and straightforward structure with which they can learn the skills appropriate to progress their sport of Motorcycle Roadracing as they all grow and gain experience. Furthermore, the programme and the workbook of modules is designed so that riders and their supporters/trainers can revisit and revise individual sets of skills at their own pace and timing.

One of the important objectives is that of 'teaching the teachers'. It is hoped that the templates in the workbook are sufficiently detailed and laid out so that parents and other less experienced helpers can learn enough themselves to become skilled, or at least adequate, trainers.

Another important objective of the programme and workbook is to hopefully provide parents/supporters/guardians who might not become their riders trainers, with increased confidence that as their rider works through the structured programme with an appropriate trainer, that their young rider will be provided with a strong set of skills and knowledge that will make them better and safer racer.

Safety

We must emphasise to parents that motorcycle Road Racing, while inherently hazardous, is statistically less hazardous than MotoX racing or many other sports such as rugby and horse riding. Emphasis is placed on there being strong health and safety protocols, rapid response by trained medical staff, well developed safety equipment and safe racing environment in general (i.e. the race track). We can emphasize here that it is common at road-racing events for the medical staff to not be called upon. Furthermore, when they are called upon, it is more often than not to treat injuries no more severe than grazes and bruises and bruised egos! Anecdotally (perhaps statistically), the injuries suffered by riders at Road Racing events are less severe than those suffered by MotoX racers.

Junior skills training is undertaken at speeds no faster than a rapid running pace and that young riders build their speeds only as their skills, abilities, experience and confidence builds. Trainers will be there alongside them to guide and assist their development. We aim for training to occur in carparks or tennis courts or similar, or at kart circuits which are smaller and have lower speed requirements.

In road racing, riders move in one direction only: Forwards. Riders are always on the ground, they are not jumping off the ground at high speeds. The racetrack is flat, with no ruts, holes, rocks or trees and it is constant each lap, it does not change. If riders fall down, they generally slide off the track, clear of following riders.

One of the big advantages for everyone, at the end of the day, riders, vehicles, gear, and Mum and Dad, will all generally come home clean and dry!

Community

MNZ would like to emphasise that the motorcycle road-racing community, at all levels, is generally a very friendly, inclusive, helpful and collaborative community. Parents, helpers and trainers are very supportive, non-judgemental and happy just to see their kids having a go and



having fun. The instances of the infamous “MotoX parents” are extremely rare and those parents and kids either do not last long in the much more collaborative environment. Or they very quickly understand that such confrontational “MotoX parent” style behaviours are not welcome at road-racing events and they learn to moderate their behaviours. One of the reasons for this that as the riders progress in the sport, the speeds on the track can become high. Therefore, it is vitally important that riders and all of their supporters have strong respect for one another and do not behave in ways that might lead to harming another rider. Parents soon understand this and moderate their behaviours to help riders also understand this.

Teaching and engagement methods

The training programme workbook and the modules contained therein will be available *via* the MNZ website, from your local club or from approved trainers. Everyone (trainers/parents/clubs) will then be able to work through the different lessons contained within the modules with their junior riders, either one on one, or in groups. The trainers can then assess the riders and their development against the programme modules to ensure that the riders have become competent at the skill sets or whether they need to continue working on different areas.

The programme aims to provide methods for junior riders to develop the fine motorcycle riding and control skills needed to ride and then race motorcycles, introductions to learning about motorcycles themselves, introductions into the preparation and safety aspects of motorcycle racing, a step by step introduction to ‘big track’ riding and racing and introductions to the more specific techniques used to race motorcycles.

Workbook download

It is anticipated that parents or trainers will download and either print out a set of programme templates for each junior rider in their charge, or store them on a portable tablet/laptop device. The trainers will then read and understand the programme for themselves and become familiar with the steps provided. Most of the initial stages of the programme can be undertaken in appropriately sized driveways, quiet streets (e.g. cul de sac), carparks, tennis courts (as appropriate) or at kart tracks. There is no need to wait for access to the ‘big tracks’. Indeed, the basic, fine skills development must be undertaken under close supervision for rapid help and feedback to riders. Asking them to simply ride around the big track is completely counterproductive. There is plenty of time for them to go to the big track. Training will of course, be on-going and riders should continue to develop their basic skills at any opportunity they can find. Parent trainers with no previous knowledge will be best placed to engage a club member or a professional racing trainer, such as Moto Academy NZ or others who are available around NZ. It is envisioned that this early part of the training might take several weeks or months of time.

Repetition

It must be understood that riders will need to repeat some of the lesson steps many times before they can be considered competent. It is not sufficient to expose the rider to a skill just once and consider they have therefore gained that skill. It must be understood that the aim of this training programme is to develop well-rounded, skilled young riders. It is not the aim to simply work through the programme as quickly as possible to simply tick the boxes! Some riders will gain the skills more rapidly than others, but they all need to gain the skills and become competent riders before we expose them to the road-racing environment.



The better skilled they are before they start racing, the more enjoyment they and their parents will get from the sport and the more successful the riders will be.

Modern riding methods, physical training and safety

We must make an effort to instruct the young riders in modern riding and racing methods and to leave some of the older styles and methods behind. This is important for the reasons that modern styles and skills are simply better and safer, and that should any particular rider show the ability and desire to progress to higher honours either nationally or internationally, they will not be able to perform at sufficiently high level if they do not have modern riding styles and skills.

Body balance

The key to this is the use of the upper body to balance the motorcycle in corners and to use the head and torso to lead into the corners. The use of the lower body, butt and knees, where the head and torso remain held up above the bike is an old technique that provides poor bike balance and less bike control. Lowering the head and upper body into the corners allows the rider much more control over the weight balance of the bike. It lowers the centre of gravity of the bike + rider meaning that they need less bike lean angle for the same corner. It allows the rider to have more control over their inputs, into standing the bike up for corner exit, be more responsive should the bike lose traction, and it provides a psychological advantage over riders using older techniques.

So, young riders should be instructed in these techniques from the start of their instruction. But before they arrive at this, they must be instructed how to start, stop, brake, change gear, emergency brake, maintain body position and all those other hard and soft skills.

Rear brake

The other skill that has been identified as extremely lacking in the New Zealand context is the use of the rear brake. Riders of all ages who enter the sport ask around the paddock in NZ and are consistently told that the rear brake "never use it", "don't know why it's even there". This is a huge gap in skills development in NZ and a major performance disadvantage. The rear brake has a very important function for bike balance, controlling racing lines and for traction control. Its use must be developed from the very first training sessions. Use of the rear brake is very difficult to learn after a rider has been riding/racing for some time. Use of the rear brake must become second nature and viewed as completely normal.

Safety aspects

Riders must be exposed to and instructed in the safety aspects of racing right from the first sessions. Good condition bike and gear, good personal preparation, understanding safety flags, situational awareness and track/racing etiquette and other such aspects is vitally important. Riders are instructed increasingly deeply in the safety aspects as they progress through the programme. It is vital that all new riders and racers are completely familiar with the safety flags and the actions that are required of them for each different flag.



Training sites

1. Carparks/tennis courts/cul-de-sacs.

With the use of small sports cones or something similar such as bright chalk marks (so that riders can hit or ride over them safely), even small spaces such as a street cul-de-sac or old tennis court, can be used to teach young riders on small bikes, at low speeds, the basics and to develop the confidence to progress to on-track riding. The utmost care must be taken regarding access permissions and safety with regard to other road users. Owners of all sites, especially business carparks, must be approached for permission to use them.

2. Karting circuits

Access to kart tracks is a huge advantage for rapid skills development. At kart tracks, riders' skills are challenged constantly so they must apply their skills and learn and improve rapidly if they are to meet the challenge posed by the circuit. On the small KayoMiniGP 150 (and other small motorcycles), riding at the much lower speeds attained at kart tracks is appropriate for junior rider training. Some of the speeds attained at big circuits can become inappropriate at beginner levels.

IMPORTANT INFORMATION REGARDING KART CIRCUIT ACCESS

Access to kart circuits across New Zealand is not a right, nor is it uniformly available. The Kartsport clubs spend a lot of their members' time and money maintaining their facilities. Use of these facilities by motorcycle racers has been negotiated over many years and is a privilege, not a right. It is vital that new riders/racers do not jeopardise the long-negotiated access. Motorcycles must have certain track-protection parts added to the bikes and are generally asked to improve the noise reduction over standard.

Information about access to kart tracks across New Zealand can be obtained in the first instance from your local motorcycle racing club, or by contacting Bucket Racing New Zealand *via* Facebook or www.bucketracing.org.nz

Training Camps

One of the plans we would like to put into action is the concept of Motorcycle Racing training camps to be run for 2-4 days during school holidays. Logistically, this would most likely be best done at one or two locations in the North Island and one or two in the South Island. Riders would be able to attend as many of the camps they wish to or are able to. Spring/Summer would be the best time to hold such camps, with the hope of fine weather for all 2-4 days.

It will be recognised that there will likely be riders of all abilities attending said camps, so different trainers may be required and riders broken into different groups at different times.

The camps would be best undertaken at karting circuits, or suitable spaces such as large empty carparks or the track extension at Manfeild.



If the timing is suitable, we may be able to organise for Moto Academy NZ student, Junior World Championship Moto3 and Red Bull Rookie racer Cormac Buchanan to be a part of the training team.

Please watch the MNZ/Moto Academy NZ website and Facebook spaces for more information as the year progresses.

Safety equipment/riding gear

The safety equipment needed for motorcycle road-racing is different to that used for MotoX and off-road racing. With an increasing number of juniors entering the sport, the amount of new junior sized gear available is increasing and the amount of used gear available will increase too.

A minimum level of safety equipment is required to get started. At the very minimum, for basic skills training only, MotoX gear might be used, perhaps to see if the young rider is interested in road-racing bikes or not. As soon as riders are to go onto the racetrack, it is important that they be provided with the right safety gear and the best you can afford to buy.

The safety equipment must all be well fitting and in good condition. Good condition second-hand equipment is perfectly acceptable, but new helmets are recommended. Equipment includes:

A new, correctly fitting, full-face helmet from a reputable manufacturer (standards for helmets can be found on the MNZ website in the Manual of Motorcycle Sport);

Road-racing style gloves;

Road-racing style boots;

Backprotector;

Chestprotector;

Or an airbag vest;

Road-racing or road-riding leather suit (many leather suits now can do both jobs). At a beginner level, two-piece zip together leathers will be acceptable.

Airbags vests or suits are becoming increasingly popular, but are expensive and youth sizes are more difficult to source in NZ. However, while expensive, they are a proven safety measure that reduces the negative outcomes of crashes, ie injuries.

Some examples of modern safety equipment

Helmet



Gloves



Boots



Back/chest protectors



Racing leathers





Motorcycles

This programme is biased towards the use of the Kayo MiniGP150 motorcycle for youth training. We make no apologies for this as they are among the best junior training tools we have ever seen. Some younger and smaller riders however, will still be too small to use the Kayo effectively. In these cases, we recommend use of a motorcycle such as the PW50/TTR50/CRF110 or similar with road tyres fitted. There must be no need nor coercion to rush riders on to larger motorcycles before they are actually ready for them, regardless of how they may feel about that. If the junior riders are moved onto larger motorcycles without having the base skills first, their development will be stunted and they may lose interest or worse, get hurt. Moto Academy NZ has seen several recent examples of junior riders riding bikes that are too big for them and riding the bike in a manner that suggests they are scared of the bike. This should be discouraged.

We do not recommend or accept junior riders to run higher performance MotoX motorcycles (e.g. SX50/65/80/125 etc) with road tyres fitted. These bikes are too fast for junior development and do not perform sufficiently well on the racetrack at the speeds they can reach due to their geometries, to be safe. Please do not try and use these bikes for junior road race training.

When the rider is sufficiently skilled and experienced to move on from the Kayo MiniGP150 or similar, there are a couple of next steps available. One of those is to progress to 'Bucket' racing, where riders build their own 50, 100 or 150cc race bikes and compete in races generally held at Kart circuits. FYI, the term 'Bucket bike' comes from many years back either when people built bikes out of the parts they could find 'lying around in buckets' or from 'racing around some buckets laid out on the carpark'. Some 'Bucket' bikes are quite inexpensive, while others now have had lots of money spent on them. So, there is a wide mix of riders, bikes and appropriate classes. The Bucket racing organisations have now accepted the KayoMiniGP150 as a separate class at their events, so if there are sufficient numbers, junior riders will be able to take part in training and in the future, racing at these events across New Zealand.

The other pathway is on to the 150 Supersport motorcycle, either the Yamaha R15 or the Suzuki Gixxer150. Supersport 150 is an MNZ championship class and should be viewed as the introductory class for young and/or novice riders to begin their championship racing careers. Riders should aim to spend between 1-3 seasons racing the 150SS class to develop their racing skills. Riders can begin racing in 150SS at 12 years of age and continue until around age 16 or 18.

Following that the next step is the 300 Supersport class or the Pre-Moto3 style machine in Formula 3 type races. Yamaha R3, Kawasaki Ninja300 and 400 and KTM RC390 are the machines of choice for 300SS. 300SS is the largest and most competitive of the MNZ championship classes and the best class for riders to learn more advanced racing skills and is available to riders from 14 - 15 years old continuing generally until age 21 and sometimes much older.

The IMD iM250, Honda NSF250 are available for the Moto3 style racing, but as we no longer have a GP bike class, these bikes need to be raced in Superlight or Formula 3 races at club events. The Moto3 class of bikes are the best for developing elite racing skills, but they are more expensive to use than 300SS bikes.



The following are examples of some of the motorcycles that are appropriate for junior development:

Junior MiniMoto



Yamaha TT-R50



Honda CRF110



Kayo MiniGP 150

150 Supersport



Yamaha R15



Suzuki Gixxer150

300 Supersport



Yamaha R3



Kawasaki Ninja400



KTM RC390



PreMoto3, Moto3



NZ made IMD iM250



Honda (HRC) NSF250R NX7