



NINJA KARTS

THIS IS A NON-CONTACT FORMULA FOR CHILDREN AGED 6-11

1. A GENERAL GUIDE TO THE FORMULA
2. ELIGIBLE CARS
3. VIOLATIONS
4. PERSONAL SAFETY
5. SAFETY EQUIPMENT
 1. CRASH HELMET
 2. RACING OVERALLS
 3. GLOVES
 4. BALACLAVAS
 5. NECK BRACE
 6. WET WEATHER CLOTHING
 7. WINDOW NET
 8. HARNESS
 9. COMPETITION STYLE DRIVERS SEAT WITH HEAD RESTRAINT
 10. CHAIN GUARD
 11. ADDITIONAL SAFETY EQUIPMENT
6. CONSTRUCTION
7. ENGINE
8. CLUTCH
9. AXLE & DRIVE
10. FUEL
11. TYRES
12. ROOF GRADING
13. MISCELLANEOUS

1. THE FORMULA

The Ninja Kart Formula is to provide Children aged from 6 to 11 years of age (they must retire from the formula on the date of their 11th birthday).

2. ELIGIBLE KARTS

Primarily a MSA go kart chassis, although purpose built ninja kart chassis are permitted, provided the chassis is constructed in accordance with MSA yearbook.

3. VIOLATIONS

When referring to the engine, gearbox, final drive, mechanical or general car construction rules & regulations, the principle will always be that unless permission is granted by the promotion in writing regarding any modifications or to be able to make a modification outside of these rules, nothing may be done to alter or change the standard parts of your vehicle in any way whatsoever.

1. It is the responsibility at NO cost to the promoter or its affiliations for the driver to prove to us that any part used is legal, by way of written proof of where the standard part originated or manufactured part that we deem outside of the rules written for this formula. Written proof must be obtained and presented within 7 working days after any part is found to be illegal by the promotion and or its affiliates or associates, if you do not prove in writing within the 7 working days after the violation has been found, the part will be deemed illegal, resulting in immediate suspension from racing and referred to the board of control for disciplinary action.

Unless the rules say you can do it, you cannot do it!

2. All cars will be checked at scrutineering prior to racing, for car construction and driver safety, you will only be permitted to race if your car passes scrutineering on the day presented and that you have signed on to race that day, no car sharing allowed in this formula, you will receive a penalty and disciplinary if you allow your car to be raced by someone else on the day you intend to and sign in to race. Should your car fail scrutineering you must rectify it prior to racing at any other event. Please note - that presentation of your vehicle for scrutineering is your declaration as the entrant that the vehicle is eligible for that event.
3. Engines, Gearbox, Differential, outer and internal running parts, Suspension, Cambers, Castors, Wheels and Tyres Exhausts, Carburettor and manifolds outer and internal casings and running gear, and also Standard fitment parts permissible to be used within the formula must be within the rules of the formula and can be checked at any time for legality by the promotion. Failure to allow any of the above parts to be checked and measured for legality at any time will result in immediate suspension of all racing facilities and in turn will be deemed illegal, presenting your car for scrutineering may not necessarily determine your car at scrutineering to be legal, only after further checks are made will your car and running gear and internals of engines and ancillary parts being found legal will result in you keeping points, championships, however as in point 2 in Violations above, you will have a maximum of 7 days to proving your part is legal, during this time the part must remain with the promotion until clarification in writing is proven within the allotted time allowance listed in clause 2 above. Only then will a championship position or points be allocated if found to be legal, any violation or illegal parts will result in you forfeiting any points or championship position and prize money earned.
4. Should a discrepancy occur between the Specifications the promotion will exercise its judgment and the decision or outcome will be final and accepted by the driver.
5. Each driver is permitted one car per meeting in the formula he/she intends to race and in turn each car is only permitted the signed on driver who presented the car for scrutineering that day for this formula (no car sharing allowed) if any driver other than that who presented it for scrutineering and whom is signed in to race on arrival prior to the car being scrutineered is caught to be racing another competitors car in any formula will find him/herself being penalized, and the owner of the vehicle who presented it on the day to race will be penalized also.
6. Drivers are responsible for their cars that they present to race on the day of racing and understand that if their car is used with or without their knowledge he/she will also receive a penalty by the board of control.
7. A minimum of 3 month ban will be issued for car sharing and given to both the driver and person using the car if caught; also illegal parts used in this formula will also result in a 3 month ban which will be issued by the board of control; also any driver swapping his personal wrist ban that he/she will be given once signed on will also result in a 3 month ban.

4. PERSONAL SAFETY

Drivers are advised that under Health & Safety, they are responsible for their own and their mechanics actions, Alcohol and drugs are **NOT PERMITTED** at any time as they may effect their judgment and bodily functions and be detrimental to their health and well being, and may affect any medical attention that may be administered by Paramedics, First aid assistance or Hospital staff. Scruitineers and Officials will report to the Clerk of the Course, anybody they believe to be under the influence of Drink or Drugs. You will be excluded from participating or competing if we feel you are intoxicated at any time during the event

FLAG SIGNALS FOR YOUR FORMULA

- WAVED GREEN FLAG: You may race.
- WAVED RED FLAG: You must safely slow down and stop immediately.
- CHEQUERED FLAG: Given to the race winner (penalties may apply during the race to stop you winning) continue to race until Red flag is shown to end the race.
- YELLOW (held steady): Beware driver in Dangerous position or hazard on track continue racing.
- WAVED YELLOW/YELLOW LIGHT: Slow down to 5mph single file No overtaking.
- BLUE FLAG: Hold you're racing line.
- WHITE FLAG WITH BLUE SPOT: Oil on track proceed with caution.
- BLACK FLAG: You are disqualified, pull off the track immediately given 3 times maximum to the driver in any race if you ignore this you may receive a minimum of a 3 month ban.
- WHITE FLAG WITH RED CROSS: Technical Disqualification, leave track immediately.

5. SAFETY EQUIPMENT

1. CRASH HELMET

Crash Helmets must be of a minimum standard as directed by British Oval Racing Safety Executive (B.O.R.S.E). These are FIA8860-2004, Snell SA2005, Snell SA2010, SFI Foundation 31.1A, SFI Foundation 31.2A. The E2205 European standard helmet may be used in Fibre-glass, Carbon or Tri- Composite form only i.e. NO POLYCARBONATE helmets are allowed.

It is important that the helmet fits the driver correctly.

Shatterproof goggles/visors must be worn

2. RACING OVERALLS

You must wear Fire retardant, clean, un-torn and brightly colored Racing Overalls that are made of a fire retardant minimum proban material and are clearly marked fireproof. Mechanics are also required to wear clean overalls and will not be permitted on to the track without them being on, when instructed to do so.

3. GLOVES

It is Mandatory to wear Fire retardant Gloves also clearly marked fireproof.

4. BALACLAVAS

It is Mandatory to wear fire retardant Balaclavas clearly marked and made of proban.

5. NECK BRACE

A Neck Brace is compulsory (round type NO U shaped neck brace), we also recommend wearing a spine support HANS device.

6. WET WEATHER CLOTHING

Wet Weather clothing is also recommended and must be worn in addition to, and **NOT** instead of the racing overalls.

7. WINDOW NET

You must have a cloth type Window Net, which must be fitted with a quick release mechanism or if cable ties are used then minimum amount, however fixed it must be easily removable from a marshals perspective, and fitted to the right hand side (fence side)

8. HARNESS

You must wear a 5 point ninja kart style harness, paying close attention to the manufactures fitting and maintenance instructions

9. COMPETITION STYLE DRIVERS SEAT WITH HEAD RESTRAINT (RECOMMENDED)

A high back full containment type seat must be fitted. The top headrest of the seat must be fully supported by a steel loop or bars to prevent any rearward collapse of the upper part of the seat – this may be adjustable but must be secure at all times.

10. CHAIN GUARD

A chain guard **MUST** be fitted

11. RACE RECEIVERS

All participants must be fitted with a race receiver, to enable the Steward to communicate.

11. ADDITIONAL SAFETY EQUIPMENT

- The use of a quick release steering hub is permitted. **All inner steering wheels must be filled in : Perspex (securely cable tied) or steering wheel fully taped.**
- A cut of switch must be fitted and clearly marked on/off and be within easy reach of the driver when strapped in.
- Mirrors are NOT permitted
- A screen mesh with a maximum 2" square must be fitted, this may be cable tied in.

6. CONSTRUCTION

It is required that the chassis is constructed from magnetic steel tubing, cross section free. The method of welding/brazing is free but for all main chassis joints welding/brazing is obligatory - i.e. no clamping, sliding twisting members or torsional adjustments of any kind including bolt-in torsion bars are allowed. The use of any type of hydraulic or similar damping device for any purpose is specifically prohibited.

Purpose built Ninja Sprint Kart's **must be constructed using 28mm x 2.0mm O/D tube and are fully symmetrical in every aspect**, with symmetrical pivot/steering pick up points steelwork/components (i.e. both sides of the Ninja Sprint Kart are identical). It is not permitted to run any off-set front or back.

The wheel lift when the car is placed on full lock must be identical on both sides +/- **5MM**.

The floor pan must be complete in the driver's compartment. . All floors to be alloy min 1.5mm max 2mm with a 50mm hole directly under the middle part of the drivers seat on the aluminium floor

The Drivers lower body must be covered by the body panels (no open sides). The side bar must be a minimum of 14" from the bottom of the chassis to the top of the side opening and must be covered the bar across must be 25mm o/d.

The drivers seat must be a full containment type and must be positioned centrally in the car with strict attention being paid to its correct fitment, as set out by the manufacturer. No part of the drivers seat to be below the chassis.

The maximum overall track of the rear axle must be no greater than 1320mm (52") measured from outside of wheel to outside of wheel. The rear axle alignment will be measured from the inner edge of the rear wheel rim (with similar off-set wheels fitted) to the edge of the chassis rail which must be equal on each side with a tolerance either way of 10mm, Front Stub ales must be a Minimum of 10mm back from the outside of the wheel rim not the tyre, Hollow stub axles are not allowed, scrutineers are advised to reject any car that has them fitted.

The rear wheels must be protected from rear impact by a single hoop attached to the main chassis rail.

The driver's feet (when pedals are depressed) **MUST** be a minimum of 12" (300mm) back from the front of the bumper.

The Engine must be positioned centrally in the car behind the drive axle plus or minus 50mm, the engine clamping tubes must be no higher than 64mm above the main frame, measured from the underside of the main frame to the top side of the clamping tube, you must use the standard Honda gx160 type mounting clamps and frame.

The roll cage must be constructed in such a manner that the driver is protected from side and head impact, minimum size tubing in the roll cage is 25mm/od x 3.0mm and must consist of four posts two hoops joined together, **with both the front braces running from the front upright bars of the roll cage down to outer front part of the main chassis.**

The minimum height of the roll-cage must be 813mm (32") from the bottom of the chassis to the lowest point of the cage, whilst maintaining a minimum of a 100mm (4") clearance between the top of the child's crash helmet and the top and/or any part of the roll-cage.

The roll cage must be welded to the main chassis.

You must use the go kart plastic side pods and front bumper, in addition a roof wing and rear engine pod must be used in the construction of your Ninja Sprint Kart.

The roof wing must be of similar design to a Sprint Car, and must be fitted directly above the drivers head, it must be hinged with a quick release mechanism, the wing must cover the entire aperture above the drivers head, it must measure a minimum of 30" x 30" body, with side plates of 8" x 30" minimum and 16" x 30" maximum. The side plates of the wing **MUST** not be below the roll cage at any point. The scrutineer will pass a rod through the roll cage, from front to rear and this must not touch any part of the wing. Full access to the roll cage tubing must be achieved. The rear of the wing must be level with the centre of the axle.

No part of the driver's seat must be below the bottom of the chassis. Minimum weight of ready to race Ninja Sprint Kart must be 100kg (without driver). Car must make the 100kg weight without refuelling after a race. (Regular weight checks will be carried out). ballasting of any type is not permitted. Achieving the weight rule is the parents responsibility.

Do not attempt the above construction if you have concerns as to your welding and construction ability, your child's safety will depend on your skills.

7. ENGINE

The only engine eligible for use is the Honda GX160 supplied in sealed form by RPM who's contact details are RPM, 1 Lakes Court, Lancaster Park, Needwood Road, Needwood, Burton on Trent, DE13 9PD 01283 575566 or sam@rpmpower.co.uk

You may change the oil, replace the one make spark plug with the same type and make, replace the paper air filter with a standard Honda paper air filter. Any maintenance that requires removal of the seal, the engine must be returned to RPM so the seal can be removed for the maintenance to be carried out, upon completion of the works the engine will be resealed and fresh documents and seal details will be supplied to the record holder by RPM, it is your responsibility to ensure your scrutineer is aware of the changes, as in the event of an engine check, the scrutineer is advised to reject any engine that bears the incorrect seal number to that assigned to that engine or driver, it is a condition of your entry, you agree to allow the Promoter to swap your engine to that of another competitor for the duration of the meeting.

After scrutineering at all meetings; before changing/removal of the engine you must notify the scrutineer who will take the seal numbers of the engine removed and the new engine fitted in case of any further checks are necessary.

For 2016 RPM have introduced a buy back scheme for £360 plus carriage, full details of the scheme can be obtained directly from RPM.

8. CLUTCH

Clutch are free, you will be advised of the engagement speed by your local scrutineer.

9. AXLE & DRIVE

Only a 70-20 tooth rear sprocket and clutch may be used using a 219 pitch chain.

10. FUEL

No additives of any kind may be used only, petrol purchased at the roadside pump may only be used. you may not alter the fuel tank in any way.

11. TYRES

Only the Duro Highline HF-242 BI and B2 slick- tyre can be used, these must remain as manufactured and may not be altered in any form, tyre softener, substances or additives are NOT permitted.

When the race is declared a "wet race" by officials, then and only may wet tyres be used, wet tyres are free. Rear Wheels must be a minimum of 175mm deep, with both wheels being the same depth. No stagger is permitted under any circumstances.

12. ROOF GRADING

All drivers must display their current grade, this must be with a 50mm wide x 500mm long stripe running along the front edge of their roof wing, champions may fit flashing lights.

Drivers visiting other tracks will use their current highest grade at their own promotion.

Roof grading will take place every 2nd meeting unless the promotion feel an unfair advantage has been gained whereby they reserve the right to move any driver at anytime.

13. MISCELLANEOUS

These rules are in place now, however discretion is given by the scrutineer whilst the formula is being built up, it is the scrutineer decision as to weather a kart/driver can race.