

Mini Construction Regulations



(Reproduced from Eastbourne indoor mini rules)

This class is based on the basis on the principals of close, fair, and low-cost racing. Whilst other makes of car can be used, they must be of similar design and construction to the Mardave Mini Assassin range of cars. Performance is limited by the construction, and cars should be run "out of the box," with minor modifications such as manufacturer produced parts.

The Rules outlined below may not necessarily cover every single aspect of car construction and drivers are required to follow the spirit and intention of these rules if any ambiguity is discovered. If you are in doubt of your car being within the rule set, please ask a committee member to clarify. DO NOT JUST ASSUME MAKING CHANGES TO YOUR CAR IS OK.

1. General Rules

- 1.1 Cars may use any make of clear Lexan Austin/Morris/BL Mini shells (NO ABS).
- 1.2 No convertibles or pick-ups can be run.
- 1.3 Spoilers are allowed but must be to the following dimensions.
 - 160mm wide (max).
 - 35mm depth +/- 3mm.
 - 25mm side height +/- 2mm.
 - 15mm max height from the top of the shell.
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- 1.4 Windows must be clear, no tint or black out.
- 1.5 Headlamps and grills must be defined. Lights are not allowed to be used on the car.
- 1.6 Shells must have no sharp edges that could cause harm to other racers/marshals or damage the carpet.
- 1.7 Shells must run a minimum clearance of 4mm.
- 1.8 Body and chassis must be securely joined at all times while the car is on the track.
- 1.9 Wheel rim diameter (not the tyre) maximum is 40mm, and 26mm Width.
- 1.10 Wheels must be fixed by a single fixing.
- 1.11 Tyre treatments are allowed providing they are on the BRCA allowed water-based additive list.
- 1.12 Wheel nuts and/or axles must not protrude more than 2.0mm beyond the outer edge of the wheels. No more than 1.5mm of wheel outer side may be exposed (not covered with foam) on the outer edge of wheels.
- 1.13 Rigid bumpers made from non-resilient materials such as metal are not allowed. Other sheet materials should be no thinner than 1.5mm, anyone found to be repeatedly damaging the track markings or other racers cars due to running big bumpers will be asked to change to a softer construction of bumper.
- 1.14 The minimum ground clearance of the car, not including the spur gear is 3mm.

2. Gearing

- 2.1 32dp only.
- 2.2 15, 16, or 17 tooth pinions for brushed ONLY. Open gearing for Brushless
- 2.3 48 or 50 tooth spurs ONLY.

3. Motor

- 3.1 **Brushed** - Mardave G2 F20 (#G2 F20), Core 21 Silver Can (#CR711) and Etronix Sport 540 Tuned Stock 20T (ET0320) only, these cannot be tampered with in anyway, motors may be water bathed, Motor additives are allowed. Motor Spacers can be used.

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Brushless – Any fixed timing 25.5 motor – Other clubs/championships are using the following –

- Hobby wing Just stock G2.1
- Hobby wing Quicrun G2
- Surpass Rocket Supersonic

4. Speed Controller

4.1 Any commercially available brushed speed controller with a list price of less than £60.

Brushless ESC's - **All brushless ESC's must only be used in Blinky mode, softening is not allowed if available on the ESC**

- Toro 50amp
- Trackstar clubman 60 amp
- Hobby wing Juststock 60 amp
- Hobby wing Quicrun 60 amp
- Surpass Rocket RC ESC 100amp

5. Batteries

5.1 Batteries must be made up from 4 Sub-C Metal Hydride cells. Pack may be in “stick” or “saddle” format. These must be readily available to purchase. Batteries may be wrapped but the club can ask for the wrapping to be removed for inspection if needed.

5.2 2S LiPo batteries – **Only to be used with brushless ESC's and motors.**

- All lipos must be hard cased and in good condition.

6. Servo

6.1 Any commercially available servo with a list price of less than £50.

7. Chassis and Components

7.1 The main chassis component will consist of one continuous sheet of material. It can be either fibreglass, or Aluminium.

7.2 Overall maximum width of the rolling chassis to be 165mm.

7.3 Wheelbase is to be 176mm +/-3mm.

7.4 Chassis components must be commercially available.

7.5 Chassis bottom must be flat with no protruding fixings.

7.6 No modifications are allowed to the chassis, but edges may be smoothed, sanded, or sealed.

7.7 2 springs may be fitted on the front end, and up to 3 springs may be fitted to the rear.

7.8 A solid axle must be used. No differential.

7.9 Rolling element (ball) bearings are allowed on the front and rear axles.

If in any doubt, please check with a committee member.