The first affordable race car of the 21st century
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You don’t need a \textbf{radical} revolution just our progressive evolution.

Nowadays, affordable racing is thought of as second level engineering. We think of it differently. High-end materials are no longer restricted to factory teams, and the ingenious simplicity of tubular space frame simply cannot compete with the strength to weight ratio of carbon fibre monocoque. Add in non-compromised, all-round safety, mix it with reliability, and wrap it in excitement and emotion. These are the visions behind R1.

Does this sound like the last century to you?

\textbf{We live in the 21\textsuperscript{st} century and we are aware of it.}
The perfect balance between attractive design and aerodynamic efficiency.

We wanted the car to be stunning. But that isn't enough without the added value that ensures our primary objective – to go fast. Combining the two might seem difficult, until you realize that well executed aerodynamics creates state of the art racing.

R1 can in fact generate up to 1.5x times its weight through its sophisticated aerodynamics. Enhanced traction and the overall capability of the car to go fast around the corners is what differentiate R1 from its competitors.
Where standard racing safety is not enough.

Although we think light, there is no compromise in terms of safety. Racing rules dictate to mount a nose cone crash box on to the car. We think this is not enough. R1 crash safety structure is composed of bespoke honeycomb carbon fibre monocoque, carbon/Kevlar strengthening flooring, front and rear crash boxes, and side mounted crumple zones. An independent test centre in Cranfield (UK) carried out a test of R1’s monocoque according to FIA CN standard and the monocoque survived with absolutely no damage at all. Coupled with the racing standard six point seat belt, neck restraint, helmet side support, FIA approved fuel cell, polycarbonate windows, and an integrated fire extinguisher system, you'll never feel so safe in a race car.

It is good to know that when everything else “disappoints”, your safety is not compromised.
Out of the first 50 starts, we have 100% finish score. You get the picture...
Affordable, does not mean boring!

We know what it costs to race. You spend money on a car, but that is where your expenses merely begin. So we thought about what we could do to make racing more affordable, and here's what we did:

- The R1 cost is comparable to other race cars, but in terms of its technology you’ll be left with no doubts about its value for the price.
- Lightweight and aerodynamically efficient design allows for a stock engine to be used. Don't get us wrong, the engine comes from Formula Renault, but the difference compared to its stock origin is only the dry sump for a lower centre of gravity. That means 3-10 times longer intervals between engine rebuilds than the racing standard.
- Maintenance requires race mechanics, which can often stretch the budget. The R1 is designed to be maintainable by a single mechanic, keeping those costs minimal.
- Suspension setup is optimised to enhance traction while minimise tyre wear. Aware of tyre cost, we did what we could to give you more running time on a single set.
- R1's parts are designed and build to last. Less replacement means less cost and if you do need to replace a part you will find more than competitive prices. We believe that quality matters.
- Crashes and scratches? Carbon fibre doesn't mean just lightweight, it also means durable. And R1 is completely carbon fibre.
- Reliability? Out of the first 50 starts, we have 100% finish rate. You get the picture.

Where others reach deep into their pockets to keep their engines running, the heart of your R1 will last you throughout the season.
R1 is meant to be raced, not serviced.

We don't have patent on being smart. Why reinvent the wheel? Reliability is a question of trial and error and so we made a deal with those who tried. In the 21st century, there is no shortage of bespoke motorsport products from great producers and we gladly accept the knowledge coming from their experience. AP brakes, Hewland transmission, Renault Sport engine, Koni dampers, Cosworth Pectel – ECU and a formula style steering wheel, ATL fuel tank, Sachs clutch, OMP fire extinguisher system, and KMP pneumatic paddle shift. We take reliability seriously.

Utilizing what works in the best possible way is our solution to keep the costs down while delivering incredible performance.
We admit that R1 is not just about purpose, it is also purposefully beautiful.

The design was mainly inspired by the legendary 24hour Le Mans prototypes, but the inspiration did not stop there. Raindrops gave it aerodynamic efficiency, fighter jets elegant functionality, advanced materials an eye-shattering shape and the Star Wars similarities a bit of timelessness. We wanted you to feel the functionality and emotions in perfect harmony, the pre-load of energy in all the curves mixing with the lightness of air passing by. We simply wanted it to be breath taking. Whether we were successful, we'll leave that up to you...
Race cars are an art like paintings. No wonder people like to hang their pictures on their walls. And we believe that R1 will cover a lot of walls...
Technical specification

GENERAL CHARACTERISTICS
Made in EU

**Praga R1 Basic description**
Single-seater race car (two seater optional), carbon fibre monocoque

**Weight (dry)**
595 kg

**Dimensions (H x L x W)**
965 x 4144 x 1800 mm

**Wheel base**
2527 mm

**Wheels and tyres front**
Praga, centre locking 15 x 8, with 205/580R15 Racing tyre

**Wheels and tyres rear**
Praga, centre locking 16 x 10.5, with 265/605R16 Racing tyre

ENGINE
Renault Sport Formula 2010 2.0 Engine

**Praga R1 Configuration**
F4R 832

**Cylinder / Valves**
4 / 16

**Location**
Mid, longitudinally mounted

**Bore / Stroke**
82.7 x 93 mm

**Displacement**
1998 cm³

**Engine Life**
60 hours before rebuild

**Rev Limit**
7500 RPM

**Power**
210 bhp @ 7250 RPM

**Torque**
220 Nm @ 4500 RPM

DRIVETRAIN & ELECTRONICS

**Clutch**
Lightweight steel flywheel / competition twin plate ZF Sachs Racing clutch

**Gearbox**
Custom made HEWLAND JFR – six-speed sequential semi-automatic transaxle gearbox, interchangeable gear sets

**Shifting**
Custom made PRAGA Pneumatic paddleshift system with flat shift and auto blip made by KMP

**Exhaust system**
Complete custom made stainless steel exhaust system with silencer

**Engine management**
ECU Cosworth / Pectel SQ6 with close loop lambda system, pit limiter speed control, fly by wire and full sequential shifting

**Engine Control System**
Cosworth/Pectel SQ6

**Engine Loom**
Military specification wiring loom
BODY & INTERIOR

Location
Mid, longitudinally mounted

Crashbox
Front crashbox and monocoque built to FIA CN specifications. Additional rear crashbox and sidepod based crumpler zones.

Body panels
Quick-release lightweight carbon fibre body panels

Rear wing
Low-drag carbon fibre adjustable bi-plane rear wing

Doors
Carbon fibre driver and passenger doors

Fuel tank
60 liter foam-filled FIA approved fuel tank located behind the seats. (ATL duall quick fill valve-optional)

Pedals & Steering wheel
Adjustable pedals and 2-way adjustable quick release Cosworth steering wheel with display. LED shift lights, paddles and rotary switches

Seat
Custom made Praga carbon Kevlar racing seat with side head rest

Seat belts
FIA approved SCHROTH 6 point seat-belts for use with HANS

Windows
Custom made lightweight polycarbonate windows with anti-scratch protection

Lighting
Modern LED rear lights including rain light and turn lights

Fire extinguisher system
Mechanically activated fire extinguisher system in engine bay and cockpit

SUSPENSION

• Fully adjustable front and rear suspension KONI.
• Custom made progressive racing coil springs
• Unique Praga compact bellhousing with dampers
• Unequal length upper and lower wishbones
• CNC aluminum machined adjustable uprights
• Forged steel centre lock hubs
• Adjustable anti-roll bars

Braking system
• AP Racing brakes with 4-piston calipers
• Dash-mounted remote brake bias balancer
Renault Sport Formula
2010 2.0 Turbo Engine

**Weight (dry)**
625 kg

**Rev Limit**
7000 RPM

**Power**
A: 280 bhp @ 6900 RPM
B: 310 bhp @ 6900 RPM
C: 340 bhp @ 6900 RPM

**Torque**
A: 370 Nm (280 lb ft) @ 4900 RPM
B: 380 Nm (280 lb ft) @ 5100 RPM
C: 390 Nm (288 lb ft) @ 5750 RPM