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# ***FORMULA ONE HALO SAFETY DEVICE***

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**By: Sami Mamun**



# INTRODUCTION

- **Formula 1 racing is the highest level of international single-seater motor racing.**
- **F1 is one of the fastest and most dangerous sports, cars reach speeds of 233 mph so safety matter a lot in this sport.**
- **Continuous safety improvements: seatbelts, HANS device, crash structures, and now the Halo.**
- **Halo introduced as part of the sport's goal of "zero fatalities in motorsport."**
- **Early resistance from drivers , concerns about looks and visibility**





# WHAT IS THE HALO

## 01



*a titanium structure designed to protect drivers' heads.*

## 02

*Weight: about 9 kg (20 lbs) but can withstand the weight of a London bus (~12 tonnes) .*

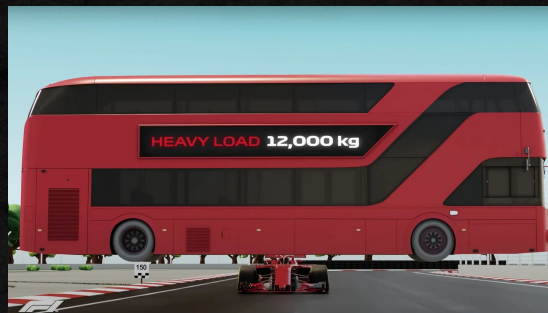
## 03

*Designed to deflect debris, wheels, or other cars.*



## 04

*Mandatory in F1 since 2018 (after years of testing).*





20 kg  
225 kph



# HOW IT WORKS



- **Made from titanium grade 5 , covered with carbon fiber.**
- **Mounted at three points: one in front and two on either side of the cockpit.**
- **Can resist impact forces about the load of a double-decker bus.**
- **Designed to not obstruct the driver's vision, only a central pillar.**





# ***HALO SAVING LIVES***

**2018**



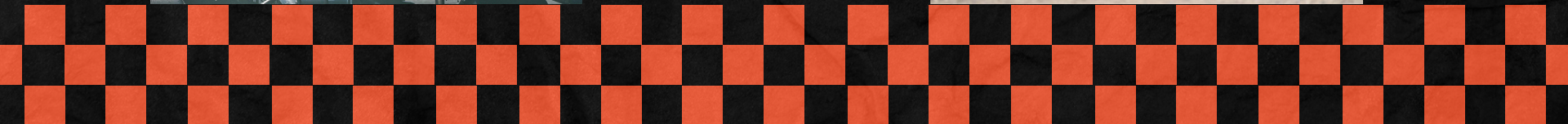
**2020**



**2021**



**2022**



# ***JULES BIANCHI***

## ***CRASH (2014)***



- ***Suffered a severe head injury (diffuse axonal injury).***
- ***He was in a coma for 9 months and passed away on July 17, 2015 , at age 25.***





***THANK YOU***