

# Section I: Strategy

Can be decomposed into three subcategories. Pit stops, driving strategy and response to race events. Pit stops are a crucial aspect of any motorsport racing as it needs to be quick and efficient because the longer you are in there the more time you lose on track. It should take a maximum 2.6 seconds for every team to change four tires for a quick stop, any longer and the team loses vital time. With McLaren racing and Lando Norris holding the fastest ever pitstop recorded at 1.80 seconds (Formula 1 – Fastest pitstop, 2023). Also, the pit team have to be able to adapt well to quick strategy calls or when the driver makes an error and damages their car and a front wing replacement is required

Driving strategy is also important in motorsport racing, planning when to go into the pits and what tyre compound to use. Even knowing when to use the cars battery to provide the option to overtake and the conservation of tyre grip. The last category of race strategy is a team's response to race events. During a race the team have to adapt as anything can happen for example dramatic weather changes, when competitors go into the pits to attempt the undercut and when an accident occurs causing a safety car or a complete race restart. Planning when to change tyres due to weather changes for example from dry to heavy rain is crucial as your drivers either lose or gain positions as there is a drastic difference in lap time between dry and wet weather tyres. Another response required for the team and drivers is when a team attempts the undercut. An undercut is when a team's driver is close behind their opposition and they pit a lap earlier than the driver in front of them. As the driver ahead is on old tyres they have less grip so are slower and as the new driver is on fresh tyres which will have more grip giving them more pace allowing them to undercut the driver that is ahead and now pitting (Autosport, 2023). The last response is the most important as it is responding to crashes and safety cars which is where the pace of the cars slow down allowing teams to pit to save losing track position