

## Version 1.7:

1. **Extend Registration Deadline**
2. Add rule for fail to detect the start signal in Section 8.1 Traffic Light

If the robots fail to automatically start after the light turned to green for **10 seconds**, it will be regarded as false start and each false start will result in a **1.2** multiplier penalty being applied to the final time.

3. Add bonus score for keep moving on the right lane in the Urban Road Challenge in Section 7.4.2

Like driving scenarios in daily life, the robots are encouraged to keep moving on the right lane of the track all the time with a bonus score, but if fail to do that, it will not have any penalty.

4. Add penalty term and bonus score in Section 8.8 Scores

$T_p$ : the penalty coefficient for false start. It is 1.2 for false start and 1 for normal start.

*Bonus*: 50 for keep moving on the right lane in the Urban Road Challenge.

5. Add resources Github repository

<https://github.com/IARRC/2019Resources>

6. Change payment method to Credit Card

## Version 1.6:

What's new in the rule?

1. More Prizes

There are more prizes this year.

	Previous	This Year
Champion	\$3000	\$3000
Second Place	\$1000	\$2000
Third Place	\$500	\$1000

2. Add two new events

To be more challenging and have a closer relation to autonomous vehicles, IARRC 2019 will add Obstacles Avoidance Challenge and Urban Road Challenge into the dynamic competition events. The table below is a summary of the events and details can be found chapter 6 and 7 of the rules.

### Summary of Four Dynamic Events

	Drag Race	Circuit Race	Obstacles Avoidance Challenge	Urban Road Challenge
# of lanes	1	1	1	2
Lane width (m)	1.5	2	2	1
Lane Length (m)	50	70	70	70
# of loops	-	1	1	1
Characteristics	Straight	Curvy	Curvy	Grid
# of vehicles at the same time	1	1	1	1
Time limit for any scores	2 min	3 min	3 min	3 min

### 3. Vehicle Requirements

Some vehicle requirements have been changed as the table below shows. The main idea is to encourage teams to build larger scale vehicles.

	Previous	This Year
Length	<75cm	30~130cm
Width	<55cm	20~70cm
Weight	<20kg	<55kg

### 4. Scores calculation formula

There are different scores calculation formula for each event, check section 8.8 in rules for details.

### 5. Time of Attempt

Every team has 3 Time of Attempt to make the best score.

