FORMULA SAE®

DRIVERLESS SUPPLEMENT 2026

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Per Formula SAE Rules **GR.4.2.3**, this Supplement is **Incorporated by Reference** into the Formula SAE Rules. This Supplement has the same validity at the Rules themselves

This document contains references to specific rule numbers in the Formula SAE Rules 2026

We expect updates to the Driverless Supplement during the year.
Verify this is the current version of this document at the Event Website www.fsaeonline.com

DA - DRIVERLESS ADMINISTRATIVE

DA.1 OVERALL

DA.1.1 Applicability

DA.1.1.1 This Driverless Supplement is applicable to Formula SAE vehicles that are participating in the Driverless Class at Formula SAE Electric

DA.1.1.2 The Formula SAE Rules apply to the vehicles participating in the Driverless Class, unless specifically stated

DA.1.1.3 Driverless features are not required for vehicles which do not participate in the Driverless Class

DA.1.2 Driverless Class

The Driverless Class is conducted in parallel, but scored separately from Formula SAE Electric

DA.1.3 Events

DA.1.3.1 The Driverless Class will consist of:

a. Driverless System Inspection included in Technical Inspection

b. Static Event

c. Dynamic Events

DA.1.4 Points

The maximum points possible are:

Static	
Design	150
Dynamic	
Acceleration	75
Skidpad	75
Autocross	100
Total Overall	400

DA.2 FORMULA SAE RULES

DA.2.1 Current Vehicle

DA.2.1.1 Vehicles for the Driverless Class must meet the current Formula SAE Rules and the Driverless Supplement

DA.2.1.2 The team's current vehicle must be used

DA.2.2 Pre-Competition Submissions

DA.2.2.1 Driverless Systems Form - DSF

a. Each team must submit a structured documentation of their Driverless System prior to the competition

b. Guidance and template files are available on the Event Website

c. Refer the Event Website for submission and penalty details **GR.4.3**

DA.2.2.2 Vehicle Status Video

a. Each team must submit a video prior to the competition showing operation of their vehicle in Driverless Mode

b. Content and format requirements are available on the Event Website

c. Refer to the Event Website for submission and penalty details **GR.4.3**

DA.3 DEFINITIONS

DA.3.1 Driverless System

The combination of sensors, processing, actuators and other hardware and software that lets the vehicle operate in Driverless Mode

DA.3.2 Manual Mode

Operation by the driver in the vehicle

DA.3.3 Driverless Mode

Operation without a driver in the vehicle, when the Driverless System is started

DA.4 TEAM OFFICERS

DA.4.1 Driverless System Officer - DSO

The Driverless System Officer is responsible for all driverless operations of the vehicle during the competition which includes any work on the Driverless System as well as driving and testing

DA.4.1.1 Each participating team must appoint one or more Driverless System Officers

DA.4.1.2 The Driverless System Officer must be:

a. A valid team member, see **AD.3 Individual Participation Requirements**

b. Qualified to handle the Driverless System and to understand and deal with problems and failures

c. One or more Driverless System Officers must not be a driver

DA.4.1.3 The Driverless System Officer:

a. Is the only person on the team that may declare the Driverless System safe, to let the vehicle operate in Manual Mode or to allow work on the Driverless System

b. Must accompany the vehicle when operated or moved at the competition site when the Driverless System is installed

c. Must be immediately available by phone at all times during the event

DT - DRIVERLESS TECHNICAL

DT.1 CONTROLS AND INDICATORS

DT.1.1 Driverless System Master Switch - DSMS

DT.1.1.1 Each vehicle must have a Driverless System Master Switch that must:

a. Meet **T.9.3** for Configuration and Location

b. Be direct acting, not act through a relay or logic

DT.1.1.2 The Driverless System Master Switch must be:

a. In the center of a completely blue circular area of > 50 mm diameter

b. Labeled “DS”

c. Fitted with a "lockout/tagout" capability in the OFF position

DT.1.1.3 When the Driverless System Master Switch is in the OFF position:

a. The Driverless System must not be able to operate any steering, braking, or propulsion

Sensors and processing may operate

b. The vehicle must be able to be pushed **D.2.1**

c. The vehicle must be able to operate in Manual Mode as a normal vehicle

DT.1.2 Tractive System Activation Button

DT.1.2.1 The vehicle must have a Tractive System Activation Button that is located near the Tractive System Master Switch

DT.1.2.2 The Tractive System Activation Button must put the vehicle in Tractive System Active from outside the vehicle when pressed

DT.1.2.3 When the Driverless System Master Switch is OFF, the Tractive System Activation Button must not do any function

DT.1.3 Driverless System Status Indicators - DSSI

DT.1.3.1 The vehicle must include three Driverless System Status Indicators, located:

a. On each side of the vehicle behind the Cockpit, between 160 mm below the top of the Main Hoop and 600 mm above the ground on the two sides of the vehicle

b. One at the rear of the vehicle, on the vehicle centerline, between 160 mm below the top of the Main Hoop and 100 mm above the Brake Light

c. Where at least one DSSI must be visible from any angle of the vehicle from a point 1.6 m vertically from ground level, in a 3 m horizontal radius from the top of the Main Hoop

DT.1.3.2 Each Driverless System Status Indicator must be:

a. On a Black background

b. Rectangular, triangular or near round shape with a minimum shining surface of 15 cm^2

DT.1.3.3 If LED lights are used without a diffuser, they must not be more than 20 mm apart

DT.1.3.4 If a single line of LEDs is used, the minimum length is 150 mm

DT.1.3.5 The Driverless System Status Indicator must:

a. Show the Driverless System Status **DO.1.1** when the GLVMS and DSMS are ON

b. Perform no other functions

DT.1.4 Driverless Alert Sound

DT.1.4.1 The vehicle must make a characteristic sound when the Driverless System Status is Emergency

DT.1.4.2 The Driverless Alert Sound must sound an intermittent tone:

a. With a frequency between 1 Hz and 5 Hz with 50% duty cycle

b. At a level between 80 dBA and 90 dBA, fast weighting, in a radius of 2 m around the vehicle

c. For a duration between 8 sec and 10 sec

DT.2 SENSORS AND ACTUATORS

DT.2.1 Steering Actuation

DT.2.1.1 Manual steering must be possible if the DSMS is Off without other steps or actions

For example, operating manual valves or connecting/disconnecting mechanical elements

DT.2.1.2 Actuation of the steering system must only be possible if the vehicle is Ready to Drive

DT.2.1.3 The steering system may remain active during an Emergency Brake Maneuver while the vehicle is moving

DT.2.2 Actuator Decoupling

Actuators may be disconnected for Manual Mode if the three:

a. No parts are removed for disconnection

b. The disconnection mechanism must not block manual operation in any position

c. The disconnection mechanism is securely locked in the two positions

DT.2.3 Sensor Camera and Electronics Mounting

All Driverless System components, including sensors and cameras must be positioned inside one or both:

a. The volume formed by the Primary Structure **F.1.10**, Tire Surface Envelope **F.1.14**, the outside surfaces of the tires, and the plane formed by the bottom of the chassis

b. The permitted locations for Aerodynamic Devices **T.7.5, T.7.6, T.7.7**

DT.3 BRAKE SYSTEMS

DT.3.1 Driverless System Brake - DSB

The vehicle must have a Driverless System Brake. The Tractive System is not a Brake System

DT.3.1.1 Technical Requirements

a. All parts and their mountings must be located inside the Rollover Protection Envelope

b. Manual braking must always be possible and not prevented at any time

c. The DSB may be part of the hydraulic brake system

DT.3.1.2 Deactivation Points

a. The Driverless System Brake must be designed to be deactivated by a maximum of two Deactivation Points

b. The Deactivation Points must be:

- Mounted inside the volume defined in **DT.2.3.a**
- Mounted in one of the two: near the DSMS or on the top side of the vehicle between the Front Bulkhead and Front Hoop close to the vehicle center line
- Near each other
- Protected against unintended actuation (being hit by a cone) while driving
- Marked with “Brake Release”

- Fitted with a red handle
- Able to work without electrical power
- Operated by maximum two simple push/pull and/or turning actions, the order and direction of these actions must be shown next to the Deactivation Points

DT.3.1.3 Function

a. A Startup Check must be performed to ensure that DSB is able to build up brake pressure as expected, before Driverless System Status Ready is possible

b. After the Startup Check the DSB and its signals must be continuously monitored for failures

DT.3.2 Emergency Brake System - EBS

The Driverless System Brake must include an Emergency Brake System (EBS)

DT.3.2.1 Technical Requirements

a. The EBS must only use passive systems with mechanical energy storage

b. The EBS must be directly supplied by GLVMS, DSMS, Remote Stop Relay and the Emergency Brake System Relay with no delay

DT.3.2.2 The vehicle must start an Emergency Brake Maneuver **DT.3.2.5** if:

a. A failure of the DSB or its signals **DT.3.1.3.b**

b. Electrical power loss at the EBS

DT.3.2.3 The vehicle must go to the Safe State if:

a. Functionality of the Emergency Brake System cannot be ensured

b. An (additional) single point of failure would lead to total loss of brake capability

DT.3.2.4 The Safe State is when the three:

a. Vehicle at a standstill

b. Brakes engaged to prevent the vehicle from rolling

c. An open Shutdown Circuit

DT.3.2.5 Emergency Brake Maneuver

The Emergency Brake System must decelerate the vehicle and stop vehicle motion

a. The system reaction time, the time between opening of the Shutdown Circuit and the start of the deceleration, must be 200 ms or less

b. The average deceleration must be more than 10 m/s^2 under dry track conditions

c. In case of a single failure the EBS should achieve at least half of the performance

d. While decelerating, the vehicle must remain in a stable driving condition

DT.3.3 Remote Stop System

The vehicle must have the standard Remote Stop System

Refer to the Event Website for additional information

DT.3.3.1 The Remote Stop System has:

a. Vehicle Module

b. Control Box

c. Remote Stop Relay **DT.4.2**

DT.3.3.2 When the button on the Remote Stop Control Box is pressed:

a. **Stop Button** - the Vehicle Module must Open the Shutdown Circuit

b. **Go Button** - the preselected Driverless Mission may start

DT.3.3.3 The antenna of the Remote Stop System must be mounted unobstructed and without interfering parts in proximity (other antennas, etc)

DT.4 SHUTDOWN SYSTEM

The Shutdown Circuit for Driverless Vehicles must include:

DT.4.1 Driverless System Relay

A permissive switch that lets the Shutdown Circuit Close when the Driverless System checks are completed

DT.4.1.1 The Driverless System Relay must:

a. Be a Normally Open relay

b. Function per **DO.2.3.1**

DT.4.2 Remote Stop Relay

DT.4.2.1 The Remote Stop Relay must be included in the Shutdown Circuit in series with the Shutdown Buttons

DT.4.2.2 The Remote Stop Relay must be bypassed by a normally closed relay when in Manual Mode

This bypass relay must:

a. Be directly supplied by the DSMS

b. Have a safety certified forcibly guided or a mirrored normally open contact which is directly connected in series to the DSMS

DT.4.3 Emergency Brake System Relay

A fail open switch that starts the Emergency Braking System when the Shutdown Circuit Opens

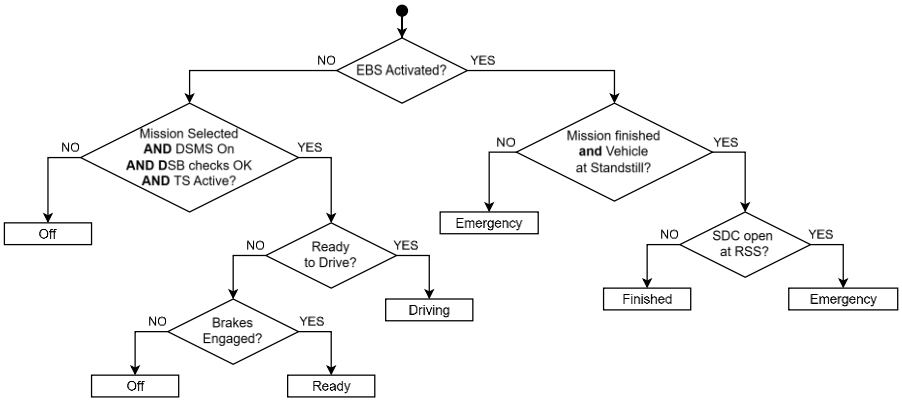
DT.4.3.1 The coil of the Emergency Brake System Relay must be in parallel to the Isolation Relays

DO - DRIVERLESS OPERATIONS

DO.1 DRIVERLESS SYSTEM

DO.1.1 Driverless System Status

DO.1.1.1 Determine the Driverless System Status as shown in the flowchart:



DO.1.1.2 The “Emergency Brake System Activated” block in the flowchart is answered:

a. **YES** – the ESB circuit **DT.3.2.1.b** is opened after passing the Startup Check **DT.3.1.3**

b. **NO** – the Driverless System Brake has been released using the Deactivation Points **DT.3.1.2** or does not pass the Startup Check **DT.3.1.3**

DO.1.1.3 The Driverless System Status Indicator must show the status of the Driverless System:

	Driverless System Status	DSSI Indication
a.	Off	Off
b.	Ready	Yellow Continuous
c.	Driving	Yellow Flashing
d.	Finished	Blue Continuous
e.	Emergency	Blue Flashing

DO.1.2 Driverless Missions

DO.1.2.1 The Driverless System must at least implement the following missions:

- Inspection **DO.1.3**
- Manual Driving
- Emergency Brake System Test
- Acceleration
- Skidpad
- Autocross

The Trackdrive mission may be included for 2026, but is not required

DO.1.2.2 Mission selection must not use an external device

DO.1.3 Inspection Mission

The Inspection Mission is used during Driverless Technical Inspection

DO.1.3.1 The vehicle is supported off the ground with wheels removed

DO.1.3.2 The Inspection Mission must:

a. Slowly spin the drivetrain

b. Slowly operate the steering system with a sine wave pattern

c. Transition to Driverless System Finished after 25 sec to 30 sec

DO.1.4 Driverless Mission Indicator

The vehicle must have a Driverless Mission Indicator that must:

a. Show the selected Driverless Mission

b. Be easily readable

c. Be located as part of the dash or located near the DSMS

DO.2 VEHICLE OPERATIONS

DO.2.1 Vehicle Operation

DO.2.1.1 Outside of permitted areas, the detachable handle or key of the Driverless System Master Switch (DSMS) must be completely removed and kept by a DSO. The lockout/tagout function must be used.

DO.2.2 Teleoperated Driving

DO.2.2.1 Between the times that the vehicle crosses the starting line and crosses the finish line:

a. Wireless communication to the vehicle is not permitted

b. One way telemetry from the vehicle may be received

DO.2.2.2 The Remote Stop Control Box is the only device that may send commands to the vehicle during any Driverless operation

DO.2.3 Shutdown Circuit

DO.2.3.1 The Driverless System may close the Shutdown Circuit if the following are obeyed:

a. Manual Mode: Manual Mission is selected, the DS has checked that DSB is deactivated, meaning no autonomous brake actuation possible

b. Driverless Mode: A Driverless Mission is selected, DSMS is ON and sufficient brake pressure is built up, meaning the brakes are applied

DI - DRIVERLESS INSPECTION

DI.1 DRIVERLESS SYSTEM INSPECTION

DI.1.1 Inspection Required

To operate in Driverless Mode, the vehicle must pass the three:

- Technical Inspection
- Driverless Inspection
- Emergency Brake System Test

DI.1.2 Inspection Items

Bring these to Driverless Inspection:

- Data sheets for all sensors
- Documents which prove that all sensors meet local legislation
- Remote Stop Remote Control
- Tools needed for Driverless Inspection
- Copies of any submitted Rules Questions with the received answer

DI.2 EMERGENCY BRAKE SYSTEM TEST

DI.2.1 Objective

The Emergency Brake System is tested dynamically to make sure performance obeys **DT.3.2.5** requirements

DI.2.2 Conduct

DI.2.2.1 The Emergency Brake Test will be performed in a straight line marked with cones similar to Acceleration

DI.2.2.2 During the Emergency Brake Test:

a. The vehicle must accelerate in Driverless Mode to 40 km/h minimum in 20 m or less

b. The Remote Stop starts at a specific point

c. The vehicle must come to a safe stop in 8.5 m or less

DI.2.2.3 If track conditions are wet, the stopping distance may be scaled by the officials

DI.2.2.4 The Emergency Brake Test is done after other parts of Technical Inspection are completed

DI.3 MODIFICATIONS AND REPAIRS

DI.3.1 After Inspection Approval

Once the vehicle receives Inspection Approval, in addition to those in **IN.16.2.3**, the ONLY modifications permitted to the vehicle are:

- Adjustments of Driverless System sensors
- Decoupling or coupling of actuators as permitted in **DT.2.2**
- Installing and removing protective sensor covers, if approved during Technical Inspection

DI.3.2 Removal or Installation of Driverless Components

DI.3.2.1 All parts of the Driverless System must stay installed during the Formula SAE Competition

DI.3.2.2 Removal or Installation of all or part of any Driverless System will Void the Inspection Approval **IN.15.1**

DS - DRIVERLESS STATIC

DS.1 FORMULA SAE ELECTRIC

DS.1.1 Vehicle Configuration

a. The Driverless System must remain on the vehicle for the Formula SAE Electric Design and Cost Events

b. The team must give an itemized list of components that are specific to the Driverless System to the judges

This will document what should not be judged during Static Events

DS.1.2 Formula SAE Electric Design Event:

a. The Driverless System and components will not be judged

b. The team Design Event score will not receive additional points or be penalized for the Driverless System and components

DS.1.3 Formula SAE Electric Cost Event:

a. The Driverless System and components will not be judged

b. Components that are part of the Driverless System and serve no other function or purpose on the vehicle are not required to be included on the Cost Report

If in question, the team must prove that a component meets this requirement

c. The Vehicle Cost will not include the Driverless System or components

d. The team Cost Event score will not receive additional points or be penalized for the Driverless System and components

DS.2 DRIVERLESS DESIGN EVENT

DS.2.1 Objective

DS.2.1.1 Driverless Design will evaluate the team understanding and execution of the sensors, actuators, control logic, processing and software for operation in Driverless Mode

DS.2.1.2 Driverless Design is scored separately from Formula SAE Electric Design

DS.2.1.3 Driverless Design will follow Formula SAE Rules for the Design Event **S.4** unless specific information is published in the Event Handbook or on the Event Website **GR.4.3**

DS.2.2 Design Documents

DS.2.2.1 Driverless Design Summary

a. The Driverless Design Summary must use the template from the Event Website

b. Refer to the template for:

- Specific content requirements, areas and details
- Maximum pages that may be used per topic

c. Refer the Event Website for submission and penalty details **GR.4.3**

DS.2.3 Design Judging

DS.2.3.1 Conduct of the Driverless Design judging will be published in the Event Handbook on the Event Website **GR.4.3**

DS.2.3.2 Driverless Design Score Sheets are available at the Event Website

DD - DRIVERLESS DYNAMIC

DD.1 TRACK MARKING

DD.1.1 Dynamic Event Markings

All Dynamic Events are marked by:

a. Track Border, Left Side - Small Blue Cones

b. Track Border, Right Side - Small Yellow Cones

c. Entry and Exit Lanes - Small Orange Cones

d. Before and after start, finish and timekeeping lines - Large Orange Cones

e. Timekeeping equipment may be surrounded by additional cones outside of the track boundary

DD.1.2 Marking Limitations

DD.1.2.1 Limitations from existing conditions and operational issues:

a. Any track marking lines may not be perfectly and continuously drawn

b. More markings may exist that are not part of the track (including but not limited to pavement markings, cone position markings, lines from other events, different colored surface) on or close to the track. These will not be removed

c. Spare cones near the track or cones marking other event areas at distinguishable distance

d. Time keeping equipment may be next to the track

DD.1.2.2 Teams must not place additional landmarks, beacons, or other similar equipment on the track or inside the Dynamic Area

DD.1.2.3 No special artificial landmarks are provided

DD.1.2.4 No map data is given

DD.1.3 Cones

DD.1.3.1 Details of Cones used to mark the Driverless Dynamic tracks:

	Cone Type	Stripe	WEMAS Part Number	
a.	Small Blue	Single White	400.000043.00.00	
b.	Small Yellow	Single Black	400.000013.01.10	
c.	Small Orange	Single White	400.000013.00.00	
d.	Large Orange	Dual White	307.610500.00.00	

DD.1.3.2 Cone Sizes

a. Small Cones are 228 mm × 228 mm × 325 mm

b. Large Cones are 285 mm × 285 mm × 505 mm

DD.2 DYNAMIC PENALTIES

DD.2.1.1 Cones that are Down or Out **D.8.1.1**

a. Are not replaced or reset while the vehicle is running

b. Do not cause a rerun if missing or in the path of the vehicle

DD.2.1.2 Off Course

When the vehicle has all four wheels outside the track boundary as indicated by the edge marking

DD.2.1.3 Unsafe Stop

When the vehicle does not do one or both of the two:

a. Stop in the specified area

b. Go to Driverless System Finished in 30 seconds or less after stopping

DD.3 DYNAMIC OPERATIONS

DD.3.1 Start Up Procedure

DD.3.1.1 Team members must move the vehicle to the starting location

DD.3.1.2 The vehicle must be staged with the steering system in the straight ahead position

DD.3.1.3 No additional equipment (laptop, jack-up device, pressure tank, etc.) is permitted to start up the vehicle at the staging/starting line

DD.3.1.4 The DSMS must only be switched on by the DSO after approval from an official

DD.3.1.5 If the vehicle does not enter Driverless System Ready 1 min or less after being staged, the team may be sent back to the preparation area

DD.3.2 Driving Under Power

DD.3.2.1 When in Driverless Mode:

a. A DSO must be at the given location with the Remote Stop Control Box

b. Other team members must go to a given location

DD.3.2.2 The vehicle may only enter Ready to Drive by the “Go” signal from the Remote Stop Control Box, after the system has remained in Driverless System Ready for at least 5 sec

DD.3.3 Run Completion or Unable to Complete

DD.3.3.1 If a vehicle comes to standstill for any reason, it has 30 sec to attempt to continue

DD.3.3.2 After approval from the officials the DSO must deactivate the vehicle using the Remote Stop Control Box

DD.3.3.3 The vehicle must be collected by the DSO and an additional team member immediately after approval from the officials

DD.3.3.4 Vehicle recovery may only be done under the control of the officials

DD.4 DYNAMIC EVENTS

DD.4.1 Dynamic Area

DD.4.1.1 Driverless Dynamic Events:

a. May be in the same area as the Formula SAE Electric Dynamic events

b. May share all or part of the corresponding Formula SAE Electric Dynamic event setup

DD.4.2 Acceleration

DD.4.2.1 Layout

Setup per **D.9.1** and **DD.1**

DD.4.2.2 Staging

The foremost part of the vehicle is staged at 0.30 m from the starting line

DD.4.2.3 Event

a. Each run is done per **DD.2**

b. Timing starts when the vehicle crosses the starting line

c. Timing ends when the vehicle crosses the finish line

d. Each team may attempt up to 4 runs

DD.4.2.4 Finish

After the finish line the vehicle must:

a. Come to a full stop in 75 m or less behind the finish line in the marked exit lane

b. Go to Driverless System Finished

DD.4.2.5 Penalties

a. Cones (DOO)

Two second penalty for each DOO (including entry and exit gate cones) on that run

b. Off Course (OC)

DNF for that run

c. Unsafe Stop (USS)

DQ for that run

DD.4.2.6 Scoring

a. Corrected Acceleration Time = Run Time + Penalties for each completed run

b. Scored Acceleration Time - from the run with the lowest Corrected Acceleration Time

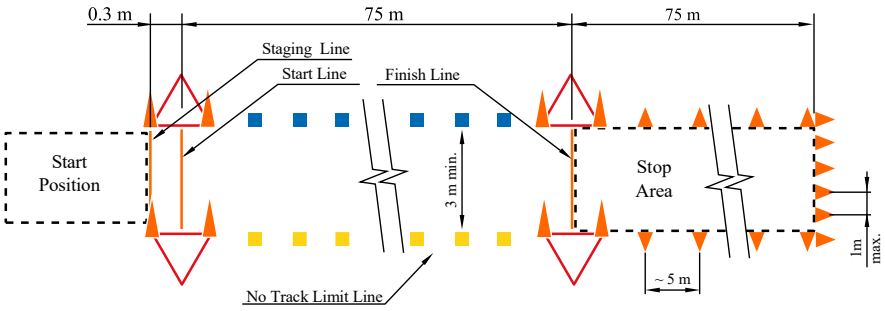
c. Starting Points = 25 points awarded for the vehicle crossing the start line with all four wheels on one or more runs

d. Completion Points = 25 points awarded for completing one or more runs

e. Performance Points = 25 points, determined from the Team Finishing Place based on the Scored Acceleration Time

$$\text{Performance Points} = 25 \times \frac{\text{Number of Teams Finishing} + 1 - \text{Team Place}}{\text{Number of Teams Finishing}}$$

f. Acceleration Score = Starting Points + Completion Points + Performance Points



DD.4.3 Skidpad

DD.4.3.1 Layout

a. Setup per **D.10.1** and **DD.1**

b. Seventeen (17) pylons are put around the inside of each inner circle

DD.4.3.2 Staging

The foremost part of the vehicle is staged 15 m from the starting line

DD.4.3.3 Event

a. Each run is done per **DD.2** and **D.10.2.3**

b. Each team may attempt up to 4 runs

DD.4.3.4 Finish

After the finish line the vehicle must:

a. Come to a full stop in 25 m or less behind the finish line in the marked exit lane

b. Go to Driverless System Finished

DD.4.3.5 Penalties

a. Cones (DOO)

A 0.125 second penalty for each DOO (including entry and exit gate cones) on that run

b. Off Course (OC)

DNF for that run

c. Incorrect Laps

Vehicles that run an incorrect number of laps or run the laps in the wrong sequence will be DNF for that run

d. Unsafe Stop (USS)

DQ for that run

DD.4.3.6 Scoring

a. Corrected Skidpad Time = Run Time + Penalties for each completed run

b. Scored Skidpad Time - from the run with the lowest Corrected Skidpad Time

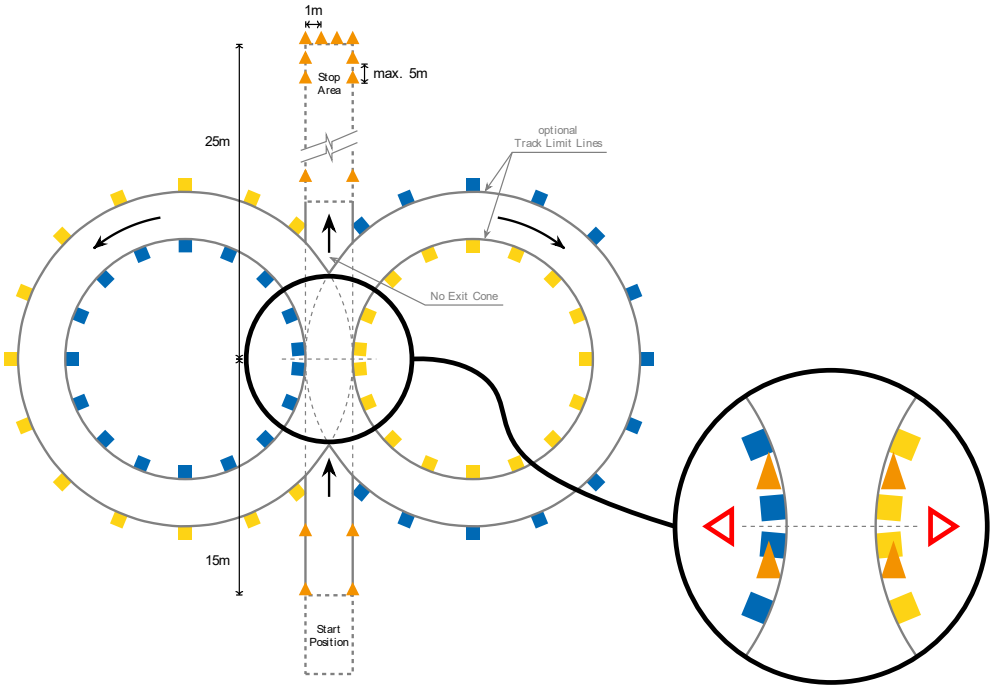
c. Starting Points = 25 points awarded for the vehicle crossing the start line with all four wheels on one or more runs

d. Completion Points = 25 points awarded for completing one or more runs

e. Performance Points = 25 points, determined from the Team Finishing Place based on the Scored Skidpad Time

$$\text{Performance Points} = 25 \times \frac{\text{Number of Teams Finishing} + 1 - \text{Team Place}}{\text{Number of Teams Finishing}}$$

f. Skidpad Score = Starting Points + Completion Points + Performance Points



DD.4.4 Autocross / Trackdrive Layout and Procedure

DD.4.4.1 Layout

The Driverless Autocross and Trackdrive courses will be designed with these specifications:

a. Straights: No longer than 80 m

b. Miscellaneous: Chicanes, multiple turns, decreasing radius turns, hairpin turns, etc.

c. Minimum track width: 3 m

d. Minimum required turning diameter: 9 m

e. Length of one lap should be 200 - 500 m

DD.4.4.2 Course Walk

a. A Course Walk is done at a specified time before the Driverless Autocross / Trackdrive

b. During the Course Walk, only non electronic measurement devices (measuring wheel, tape measure, etc) may be used. No antennas, sensors, cameras, GPS, etc

DD.4.4.3 Staging

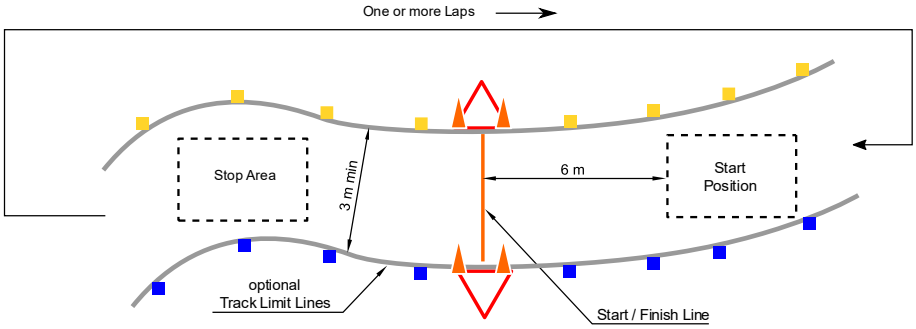
The vehicle is staged on the track with the front wheels 6 m behind the starting line

DD.4.4.4 Finish

After the finish line the vehicle must:

a. Come to a full stop in 30 m or less on the track

b. Go to Driverless System Finished



DD.4.5 Autocross

DD.4.5.1 Autocross Event

a. Autocross will run one lap

b. Each team may attempt up to 4 runs

DD.4.5.2 Autocross Procedure

Each run is done per **DD.2**

DD.4.5.3 Autocross Penalties

a. Cones (DOO)

Two second penalty for each DOO (including cones after the finish line) on that run

b. Off Course (OC)

Ten second penalty for each OC

c. Unsafe Stop (USS)

DQ for that run

DD.4.5.4 Autocross Scoring

a. Corrected Autocross Time = Run Time + Penalties for each completed run

b. Scored Autocross Time - from the run with the lowest Corrected Autocross Time

c. Starting Points = 25 points awarded for the vehicle crossing the start line with all four wheels on one or more runs

d. Completion Points = 25 points awarded for completing one or more runs

e. Performance Points = 25 points, determined from the Team Finishing Place based on the Scored Autocross Time

$$\text{Performance Points} = 25 \times \frac{\text{Number of Teams Finishing} + 1 - \text{Team Place}}{\text{Number of Teams Finishing}}$$

f. Autocross Score = Starting Points + Completion Points + Performance Points

DD.4.6 Trackdrive

Trackdrive will NOT be run in 2026, but is expected in future years

DD.4.6.1 Trackdrive Event

a. Trackdrive will run 10 laps

b. The vehicle must determine when the run is complete

c. No finishing or signal will be given

d. Each team may be given multiple attempts, at the discretion of the officials

DD.4.6.2 Trackdrive Procedure

Each run is done per **DD.2**

DD.4.6.3 Trackdrive Penalties

Per **DD.4.5.3**

DD.4.6.4 Trackdrive Scoring

To be provided later