

**PROVINCIAL FINALS**  
**MAY 1 & 2, 2026**  
**MONTREAL (LACHINE)**



COLLÉGIAL INTERNATIONAL  
**SAINTE-ANNE**

**LOCAL FINALS**

Each college will organize their own local finals between February 9th and April 2nd 2026. Teams will compete against each other in their respective categories. The nature of the prizes awarded to the winners of local finals is up to the college's discretion.

**PROVINCIAL FINALS**

The team from each college who wins their local finals, for each category, will be invited to attend the provincial finals.





## CONTEST DETAILS

### Team composition

- A team is made up of maximum 3 members and must be composed of the same members during local finals and provincials.
- A student cannot be a member of more than one team nor present more than one device.
- Teams must give an original name to their device. This name cannot be changed between local finals and provincials. Brand names are prohibited.

### Two categories

- **Professional category:** This category is for college students in Quebec of all ages, from both public and private institutions, registered full time or in continuing education in any program or discipline. The student must be registered for the winter 2026 semester.
- **Amateur category:** This category is for staff members of any public or private college in Quebec.

### Resources

- **Each college will have a resource person:** This person can answer questions regarding the competition. For the resource persons' contact information visit [scienceontourne.com](http://scienceontourne.com) (Défi 2025-2026 / Comment participer?).
- **FAQ section:** You can also regularly look up the FAQ page online at [scienceontourne.com](http://scienceontourne.com) (Défi 2025-2026 / FAQ).

# PRIZES AND GRANTS

## PRIZES – PROFESSIONAL CATEGORY

### CHALLENGE PRIZE

\$1000 for each member of the team who achieves the highest score. *Awarded by the ministère de l'Économie, de l'Innovation et de l'Énergie.*

Free enrolment to the Forum international Sciences Société for each member of the winning team as well as a reimbursement (up to \$100) to cover travel costs. *Awarded by Acfas.*

### INGENUITY PRIZE

\$1000 for the team who is able to develop an original concept for their device which best leverages the rules and regulations. *Awarded by the Ordre des technologues professionnels du Québec (OTPQ).*

### DESIGN PRIZE

\$1000 for the team who best develops a functionally and esthetically pleasing device. *Awarded by the École de technologie supérieure (ÉTS).*

### SUSTAINABILITY PRIZE

\$1000 for the team who best applies the concept of Ecodesign in the construction of their device in order to minimize their ecological footprint. *Awarded by Science, on tournée!*

### COMMUNICATION PRIZE

A \$1500 mobility grant for a scientific trip in France, awarded to each member of the team which best stands out by the quality of their communications (both written and oral). *Awarded by the Office franco-québécois pour la jeunesse.*

### MERIT PRIZE

\$1000 for the team which stands out in the following five categories: device performance, ingenuity, design, sustainability and communication. *Awarded by the Fédération des cégeps and ATEK.*

### JURY'S SPECIAL MENTION PRIZE

\$1000 to the team specially selected by the jury. Evaluation criteria are at the discretion of the members of the jury. *Awarded by Polytechnique Montréal and Science, on tournée!*



### **PEOPLE'S CHOICE AWARD**

\$1000 to the team which will be designated by an audience vote at the finals. ***Awarded by the McGill University Faculty of Engineering and Science, on tourne!***

### **MURPHY PRIZE**

Symbolic prize awarded to the team whose device did not function as it should. ***Awarded by Collégial international Sainte-Anne.***

### **PARTICIPATION PRIZE FOR GIRLS**

\$500 for a female student whose name will be selected at random in the list of participants in the local finals. ***Awarded by Fondation Familiale Trottier.***

### **PARTICIPATION PRIZE FOR BOYS**

\$500 for a male student whose name will be selected at random in the list of participants in the local finals. ***Awarded by Fondation Familiale Trottier.***

The criteria for awarding prizes are described on the competition Website: [scienceontourne.com](http://scienceontourne.com) (Défi 2025-2026 / Prix et critères d'évaluation).

### **GRANTS – PROFESSIONAL CATEGORY**

A \$1500 grant applicable on tuition fees is ***awarded by the École de technologie supérieure (ÉTS).***

A \$1500 grant applicable on tuition fees is ***awarded by Polytechnique Montréal.***

### **GRANTS – AMATEUR CATEGORY**

#### **YVON FORTIN PRIZE**

Symbolic prize awarded to the team who achieves the highest score in the Amateur category. ***Awarded by Collégial international Sainte-Anne.***

# 100 TASKS



**ATTENTION! ATTENTION! A SPECIAL LITTLE BUS IS BEGINNING ITS ROUTE ON THE 100 TASKS COURSE. NO DRIVER, NO STEERING WHEEL, JUST A DEVICE DESIGNED TO ACCOMPLISH A MULTITUDE OF TASKS: BRINGING ITS PASSENGERS SAFELY HOME, AVOIDING OBSTACLES, NEGOTIATING A VIADUCT... WITHOUT EVER LEAVING THE ROAD. PRECISION IS NECESSARY, NO GPS ALLOWED. IN SHORT, A BUSY DAY FOR A LITTLE BUS WHO MAKES UP FOR ITS SHORTCOMINGS WITH A HEALTHY DOSE OF AMBITION!**

## 1.THE CHALLENGE

**1.1.** Design a self-sufficient device capable of negotiating an obstacle course and carrying out a maximum of tasks in order to gain the most points.













## 2.THE OBSTACLE COURSE

**2.1. Surface:** the course is a 100cm x 500cm rectangular surface at ground level. For the provincial finals, this surface will be made of floating floor.

**2.2. Lines:** The lines inside and delimiting the course are made of coloured adhesive tape..

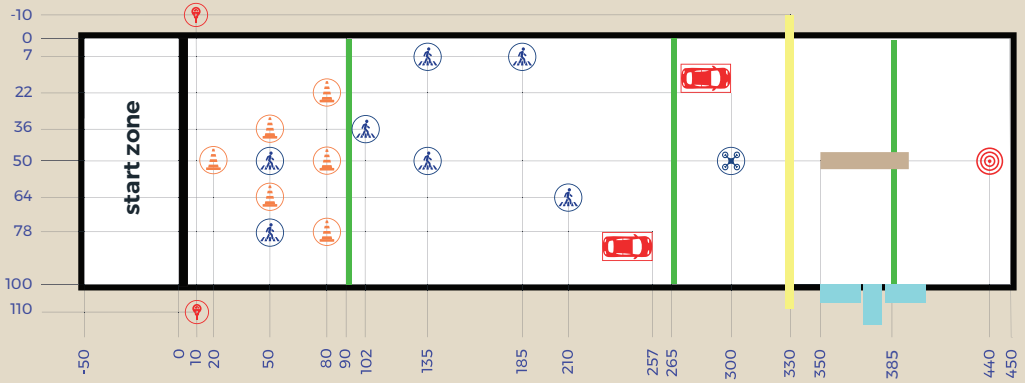
**2.3. Course components:** The obstacles in this course are easy to obtain objects and are described in the Course components table. The elements marked with an asterisk (\*) can be printed from models available on the Web site [scienceontourne.com](http://scienceontourne.com) (Défi 2025-2026 / C'est quoi le défi?).

## COURSE COMPONENTS

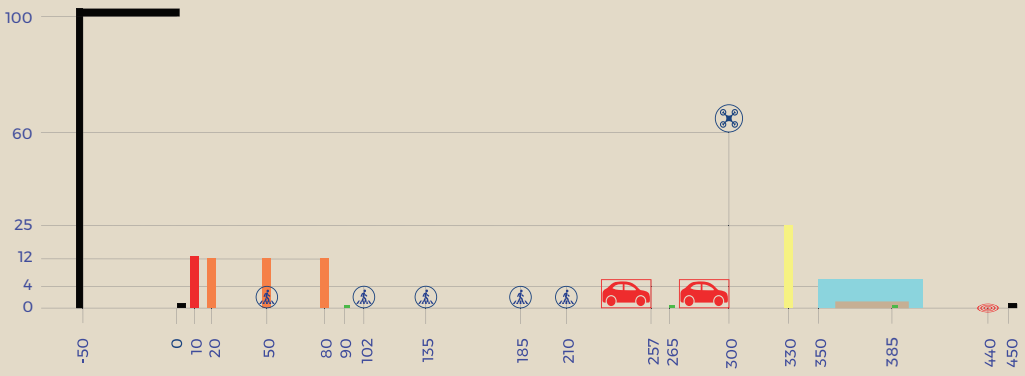
COMPONENT	ICONE	OBJECT
PARKING-METER (2)		<b>Wooden dowel</b> (length: 13 cm; diameter: 5/8-inch) placed upright, balancing, at ground level (same as course surface). It will be placed outside the border of the course surface.
PASSENGER (7)		<b>Golf ball</b> placed on a <b>rubber gasket</b> or O-ring (interior diameter: 9/16-inch; exterior diameter: 11/16-inch; thickness: 1/16-inch).
PYLON (6)		<b>Plastic solo cup</b> (473 ml) beer pong style (height: 12 cm; diameter at opening: 10 cm). Placed open side down on a <b>circle shaped marker</b> (piece of paper cut into a circle and taped to the ground) whose diameter is 2mm less than the cup.
MILESTONE (3)		<b>Green coloured painter's tape</b> taped to the ground crossing the obstacle course.
PATROL CAR (2)		<b>Facial tissue box (2-ply, cap. 126)</b> , full, (22.5 cm x 10.5 cm x 7 cm, ± 0.5 cm) placed flat down. Placed on a <b>rectangular marker</b> (piece of paper cut into a rectangle and taped to the ground) which measures 2 mm less than the box.
DRONE (1)		<b>Ping-pong ball</b> tied to a <b>thread</b> above the obstacle course whose lowest point is 60cm from the ground. The ball may hang from the <b>ceiling</b> or may be fixed to a <b>stand</b> *.
WALL (1)		<b>Beam</b> commonly referred to as a 2 x 2 made in lumber, 45 cm long fixed to the ground (3.8 cm x 3.8 cm x 45cm)
VIADUCT (1)		<b>Wooden dowel</b> (length: 48 inches; diameter: 5/8 inch) placed horizontally on facial tissue boxes or on <b>two printable stands</b> * in order to clear 25 cm from the ground. The clearance between the two printable stands must be 120 cm. The viaduct is the only element which teams can chose not to include in the obstacle course.
BUS TERMINAL (1)		<b>Three facial tissue boxes (2-ply, cap. 126)</b> , empty, (22.5 cm x 10.5 cm x 7 cm, ± 0.5 cm) cut and assembled to create <b>three adjoining bus stops</b> *. The vertical opening of the three bus shelters has a 5 mm lip in the lower part all along the track. The terminal is fixed to the ground outside the obstacle course.
CHARGING STATION (1)		<b>Round target</b> (piece of paper cut into a circle and taped to the ground) 10 cm-radius.

**2.4. Placement of the course components:** the placement of the course components is described in the Top view and in the Side view. Corresponds to: 1) the center of the object for round, circular and cylindrical objects; 2) the inner border of the electrical tape for the contour of the obstacle course, 3) the edge of the tape closest to the starting zone for the milestones.

**TOP VIEW**



**SIDE VIEW**



# 3. POINTS

3.1. To accumulate points, the device must carry out a series of tasks on the obstacle course. The 10 different tasks and their corresponding point scores are presented in the table: Point scores for successful tasks.

POINT SCORES FOR SUCCESSFUL TASKS				
TASK CATEGORY	POINTS PER TASK	TASK	POSSIBLE QUANTITY	MAXIMUM POTENTIAL POINTS
A	100	<b>Knocking over a parking-meter.</b> The wooden dowel is lying flat on the ground after the official run.	2	200
		<b>Touching the drone.</b> The device has physically touched the ping-pong ball during the official run.	1	100
		<b>Crossing a milestone.</b> The entire device has crossed the vertical plane of a milestone during the official run.	3	300
		<b>Passing under the viaduct (if the team requested the installation of the viaduct).</b> During the official run, the entire device has crossed the vertical plane of the viaduct without knocking off the dowel.	1	100
		<b>Avoiding a pylon.</b> After each official run, the circle shaped marker indicating the position of the pylon remains entirely covered by the plastic solo cup and the device has cleared the milestone located at cm 90.	6	600
B	200	<b>Boarding a passenger.</b> The device is carrying a golf ball when it has entirely crossed the 3rd and last milestone located at cm 265.	7	1400
		<b>Avoiding a patrol-car.</b> After each official run, the rectangular marker indicating the position of the patrol car remains entirely covered by the facial tissue box and the device has cleared the milestone located at cm 265.	2	400
		<b>Parking the device over a charging station.</b> At the end of the official run, the device is stationary and its projected reference point - extended position from the ground - is 10 cm or less from the center of the target.	1	200
C	300	<b>Dropping off a passenger in one of the two lateral bus shelters.</b> After the official run, the golf ball rests entirely in one of the two lateral boxes.	7	2100
D	400	<b>Dropping off a passenger in the central bus shelter.</b> After the official run, the golf ball rests entirely in the central box.	7	2800

**3.2.** The formula for calculating the final point score is shown below :

$$P = 100 \times N_A + 200 \times N_B + 300 \times N_C + 400 \times N_D$$

**3.3.**  $N_A$ ,  $N_B$ ,  $N_C$  and  $N_D$  correspond to the number of tasks ( $N$ ) successfully accomplished for each category. This number is multiplied by the number of points for the category in question.

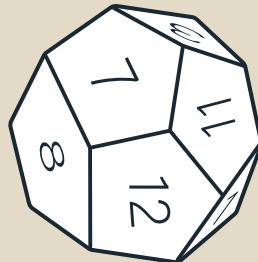
## 4. DEFINITIONS

**4.1. Device:** mechanical apparatus designed to navigate the obstacle course and accomplish one or several of the different proposed tasks.

**4.2. Activation of the device:** an action carried out by a member of the team to start the device after the beginning of the official run.

**4.3. Activation tool:** tool used to start the device.

**4.4. Green reference point:** 6 mm piece of green tape provided by the referees and placed anywhere on the device by the team during engine verification. Its extended position from the ground will have to be 10 cm or less from the center of the target to score points for the “parking the device over a charging station” task.



# 5. RULES

A team may be disqualified, lose an official run or terminate an ongoing run if they break one of the following rules:

## DEVICE

- 5.1.** The device, tools, the activation tool (if applicable) and other technical materials must fit in one (1) or two (2) boxes made to hold 5000 sheets of 8.5 x 11 in paper. The box must close to meet its original shape : 43 cm long, 28.5 cm wide and 23 cm high (interior dimensions).
- 5.2.** The devices' weight must not exceed 4500 g  $\pm$  1 g.
- 5.3.** Once the device is switched on, it must be autonomous.
- 5.4.** The device cannot break up into pieces during an official run.
- 5.5.** The device must not present any danger. The use of protective equipment such as safety glasses is highly recommended while building the device as well as during the local and provincial finals.
- 5.6.** The device must not damage the track and competition grounds.

## ENERGY SOURCE

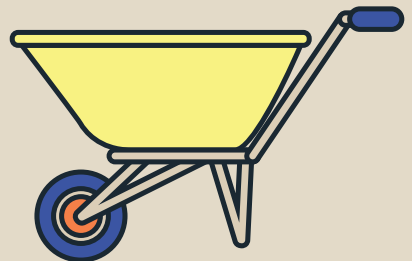
- 5.7.** The device can use any type of energy which does not involve the use of semi-conductors: gravitational potential energy, the energy of elastics, wind power, the energy of mouse traps as well as electrical energy found in batteries. Direct current electrical motors, relays, switches, conventional electrical resistors and condensers are permitted because they are not made with semi-conducting materials. Microcontrollers, integrated circuits (electrical microchips), electronic sensors, transistors and diodes are forbidden.
- 5.8.** For security reasons, combustion is forbidden.

## ACTIVATING OF THE DEVICE

- 5.9.** Before activating the device, it must be immobile and all parts must be entirely in the starting zone (length by width by height = 50 cm x 100 cm x 100 cm).
- 5.10.** Before activating the device, team members must be outside the obstacle course. They cannot touch the device to stabilize or hold it.
- 5.11.** The use of an activation tool is permitted. Before activating the device, the tool can be held outside the obstacle course or be inside the obstacle course, immobile and holding the device. The activation of the device must be performed in one action and with the use of one hand. It must be completed before the device's exit from the volume making up the starting zone.
- 5.12.** The activation action must not provide energy to the device.

## ITINERARY AFTER THE START OF A RUN

- 5.13.** Encroaching the exterior limits of the obstacle course or even completely leaving the course does not result in a penalty. However, the nature of the surface and the absence of obstacles is not guaranteed outside the defined dimensions of course. It is possible that the edges of the floating floor are close to the official limits of the course and no information is provided regarding the space available outside the obstacle course.



# 6. PROCEEDINGS

The proceedings are the same whether it is an Amateur or a Professional competition run.

## VERIFICATION OF THE DEVICES

**6.1.** Before each competition, the participating teams must proceed to a verification of the conformity of their device and explain its functions to the referees.

## QUALIFICATION ROUNDS

**6.2.** Each teams' turn is determined at random. Once a team is called to get ready, they have 5 minutes (off stage) to assemble and get their device ready. A table and an electric outlet will be provided.

**6.3.** When a team is called to begin their performance, they must place their device and activation tool (as the case may be) on the stage. At this point, the team will have 2 minutes to present their device to the spectators.

**6.4.** Thereafter the team will have 5 minutes to:

- Prepare and position their device.
- Proceed with some unofficial tests. There is no limit to the number of tests allowed as long as the time limit is respected.
- Indicate to the referees if the viaduct has to be installed or not.
- Proceed with a maximum of two official runs, the duration of each official run is of 2 minutes. The two official runs must be carried out within the limits of the allowed time, which is 5 minutes.

**6.5.** Once the two official runs have been made and the 5 minutes official run time has passed, the team must place their device on the scale so that the referee can measure its mass. The team can then leave the stage.

**6.6.** The best result (*P*) of the two official runs, if applicable, is retained for the final score.

## FINAL ROUND

**6.7.** The five teams who have earned the highest score in the qualification rounds will participate in the final round. The teams' turns is determined by the reverse order of the ranking of the qualification rounds.

**6.8.** The same steps as the qualification round are repeated, except for the presentation of the device to the audience which has already been done.

**6.9.** The winning team is determined by the best result obtained in the final round. In the case of a tie, the device which has achieved the highest number of distinct tasks (out of 10) will win. If there is a tie in the number of tasks completed, the device with the lowest mass will be favored.

## DESCRIPTION OF AN OFFICIAL RUN

**6.10.** During a teams' 5 minutes official time or when they are ready to proceed, the team representative will inform the referee and clear out the stage. The official run time is then stopped.

**6.11.** The referee will verify the conformity of the obstacle course and of the device. The referee will blow their whistle if the track and the device are compliant. The official run time has now started again and the team representative can begin the activation of the device.

**6.12.** An official run will end:

- When the maximum official run time of 2 minutes has passed.
- When the maximum overall time of 5 minutes has passed.
- If the referee determines that the action or movement of the device has stalled.
- If the team representative makes the request to end the official run.
- If a rule is violated.

**6.13.** After an official run, the time is stopped to allow the referees to calculate the points achieved by the team.

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