

2017

JeuxDeGénie

COMPETITIONS' BOOKLET - 2017 ENGINEERING GAMES

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POLYTECHNIQUE
MONTRÉAL

WORLD-CLASS
ENGINEERING

VIDEO GAMES

TAKE CONTROL



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THE COMPETITIONS

Welcome to you, dear participant, in this great adventure that are the Quebec Engineering Games! As you probably know, the Engineering Games represent the largest gathering of engineering students in Quebec. About 450 students are brought together from across Quebec to represent their respective universities in five competitions. These competitions are aimed at getting future engineers to outdo themselves on the academic, sports, cultural and social levels. Thus, a dozen universities will aspire to great victory through these 5 days filled with magic!

MACHINE DESIGN COMPETITION

The machine design competition is a robotics competition for which preparation is done during the autumn semester preceding the Engineering Games. The concept and the objective of the competition change every games in order to provide different challenges from year to year. The competition between the machines, carefully designed and fabricated by the different universities, will take place during the last day of the Games in the Salle Jacques-Maurice at Collège Jean-de-Brébeuf! This competition is the only one that is accessible to the public. This competition is worth 20% of the final score.

ACADEMIC COMPETITIONS

Academic competitions are the competitions that test the capacities of the future engineer by the means of theoretical and practical team examinations, for each branch of engineering. Added to these competitions are the consulting engineering and the major competitions, which integrate all fields of engineering. Academic competitions are worth 42% of the final score and correspond to the competitions that weight the most in the overall result.

CULTURAL COMPETITIONS

Cultural competitions allow engineering students to stand out in complementary fields of engineering. They give students the opportunity to develop highly useful skills in the professional field. There will be a trivia competition, a debate competition and an improvisation competition. These competitions are worth 18% of the final score.



THE COMPETITIONS

SPORTS COMPETITIONS

Sports competitions allow engineering students to test their physical endurance and their team spirit. They take the form of a one-day tournament, bringing together five different sports in which the delegations will compete against each other. This competition is worth 10% of the final score.

PARTICIPATION AND TEAM SPIRIT

The last part of this event, but not the least, is the participation component. Engineering games promote strong team spirit, fair play and respect between delegations. We consider it important to encourage creativity and originality. That is why we give 10% of the final score for participation and team spirit. This aspect therefore includes the general attitude of the delegations, the presentation of each theme, participation and animation.



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MACHINE DESIGN COMPETITION



FRIDAY, JANUARY 6TH IN THE AFTERNOON

Maximum 3 participants on the stage

CONTEXT

The machine design competition is, without a doubt, the most important challenge to be overcome during Engineering Games. It is, in fact, the only competition on which participants work during the fall preceding the Games. The specifications for the machine design competition were revealed four months ago. The participants of each machine team have therefore been working hard to design and build a robot which shall respect all the required specifications. During the Games, the machine team members will benefit from certain additional periods of time to carry out their final manipulations. This machine must be able to follow a predetermined course, in a given time, while fulfilling specific functions such as moving objects, bypassing obstacles, transforming energy and so on. The participants must also present their realisations to the jury members who evaluate both concept and performance.

RULES

All the regulations of the machine design competition are specified in the booklet available on the website of the Engineering Games. This booklet also includes the specifications of the competition.

PLACE OF THE COMPETITION

This year, the machine competition will be taking place at the Salle Jacques-Maurice of the Jean-de-Brébeuf College, on 6 January 2017, in the afternoon. All interested persons are invited to come and watch the competition!



ACADEMIC COMPETITIONS



WEDNESDAY, JANUARY 4TH IN THE MORNING (MORNING AND AFTERNOON FOR THE MAJOR COMPETITION)

All the delegation

COMPETITIONS BY SPECIALITY

Academic competitions have both a theoretical and a practical component. Each delegation distributes its delegates in 6 engineering disciplines and must collaborate to, simultaneously, answer to an open-book theoretical exam of 3 to 4 hours and a practical exam, both done in teams. Academic competitions thus require both the theoretical knowledge the engineering student, but also the more technical skills of the future engineer! Upon arrival at the examination rooms, a maximum of 7 participants per delegation have 20 minutes to read the theoretical and practical exams and to sort themselves in each branch (theoretical or practical) according to their strengths. However, once the distribution is made, no transition from one branch to another will be tolerated. For example, a theoretical delegate cannot change in the practical exam after the first 20 minutes and vice versa.

The 6 concerned engineering disciplines will be the following:

- Civil Engineering
- Chemical Engineering
- Electrical Engineering
- Industrial Engineering
- Computer and Software Engineering
- Mechanical Engineering

CONSULTING ENGINEERING

The consulting engineering competition gives participants an opportunity to experience the consulting engineering world and consists only of a practical challenge. Each delegation mandates 4 delegates (maximum), ideally in different branches of engineering, in order to resolve a complex engineering problem that will include technical, social and financial aspects.





THE MAJOR COMPETITION

This competition aims to test the knowledge acquired in different engineering programs such as mechanical engineering, civil engineering, industrial engineering, electrical engineering and computer or software engineering.

In this challenge, the ability to optimize, the spirit of ingenuity, teamwork and presentation skills will be evaluated.





CIVIL ENGINEERING – JANUARY 4TH IN THE MORNING

Maximum 7 participants

THEORETICAL PART

The objective of this competition is to test the theoretical knowledge normally acquired during the four years of a civil engineering bachelor. It is an open book test and therefore, all paper documentation is permitted.

Material provided by the delegations:

- Draft paper, pencils and erasers;
- Non-programmable calculator;
- Written notes and manuals

Material provided by the organizing committee:

- None

PRACTICAL PART

The objective of this competition is to test the technical and practical skills that a regular student in civil engineering has acquired. Delegations will be given a problem, a context and a precise mandate. They will have to find a solution and present it to a jury.

Material provided by the delegations:

- Scissors;
- Hot glue gun and hot glue sticks;
- Safety glasses, gloves and steel cap security boots pair per person;
- Measuring tape;

Material provided by the organizing committee:

- Everything else required for the competition



CHEMICAL ENGINEERING – JANUARY 4TH IN THE MORNING

Maximum 7 participants

THEORETICAL PART

The objective of this competition is to test the theoretical knowledge normally acquired during the four years of a chemical engineering bachelor. It is an open book test and therefore, all paper documentation is permitted.

Material provided by the delegations:

- Draft paper, pencils and erasers;
- Non-programmable calculator;
- Written notes and manuals.

Material provided by the organizing committee:

- None.

PRACTICAL PART

The objective of this competition is to test the technical and practical skills that a regular student in civil engineering has acquired. Delegations will be given a problem, a context and a precise mandate. They will have to find a solution and present it to a jury.

Material provided by the delegations:

- Safety glasses (one pair per person);
- Lab Coat (one per person);
- Draft paper, pencils, erasers and calculator;
- Written notes and manuals.

Material provided by the organizing committee:

- Everything else required for the competition



ELECTRICAL ENGINEERING - JANUARY 4TH IN THE MORNING

Maximum 7 participants

THEORETICAL PART

The objective of this competition is to test the theoretical knowledge normally acquired during the four years of an electrical engineering bachelor. It is an open book test and therefore, all paper documentation is permitted.

Material provided by the delegations:

- Draft paper, pencils and erasers;
- Non-programmable calculator;
- Written notes and manuals.

Material provided by the organizing committee:

- None.

PRACTICAL PART

The objective of this competition is to test the technical and practical skills that a regular student in electrical engineering has acquired. Delegations will be given a problem, a context and a precise mandate. They will have to find a solution and present it to a jury.

Material provided by the delegations:

- One breadboard;
- MP3 Player (like an iPod or iPhone, etc.) with your favorite song on it.

Material provided by the organizing committee:

- Everything else required for the competition

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INDUSTRIAL ENGINEERING – JANUARY 4TH IN THE MORNING

Maximum 7 participants

THEORETICAL PART

The objective of this competition is to test the theoretical knowledge normally acquired during the four years of an industrial engineering bachelor. It is an open book test and therefore, all paper documentation is permitted.

Material provided by the delegations:

- Draft paper, pencils and erasers;
- Non-programmable calculator;
- Written notes and manuals.

Material provided by the organizing committee:

- None.

PRACTICAL PART

The objective of this competition is to test the technical and practical skills that a regular student in industrial engineering has acquired. Delegations will be given a problem, a context and a precise mandate. They will have to find a solution and present it to a jury.

Material provided by the delegations:

- USB key*.
- Oral presentation template (ex: PowerPoint) in the colors of your delegation.

Material provided by the organizing committee:

- A computer WITH Internet access with the following software :

Microsoft Excel (Excel Solver Add-In Installed), PowerPoint, Word, Visio, Access, Rockwell Arena and AutoCAD.

* *One USB key per team. It should contain only the oral presentation template. The key must be handed over at your arrival at the competition to the person in charge of the inspection of the key.*



COMPUTER AND SOFTWARE ENGINEERING – JANUARY 4TH IN THE MORNING

Maximum 7 participants

THEORETICAL PART

The objective of this competition is to test the theoretical knowledge normally acquired during the four years of a computer and software engineering bachelor.

Material provided by the delegations:

- Draft paper, pencils and erasers;
- Non-programmable calculator;

Material provided by the organizing committee:

- None.

PRACTICAL PART

The objective of this competition is to test the technical and practical skills that a regular student in computer and software engineering has acquired. Delegations will be given a problem, a context and a precise mandate. They will have to find a solution and present it to a jury.

Material provided by the delegations:

- Draft paper, pencils and erasers;

Material provided by the organizing committee:

- Computer WITH Internet access on Windows and / or Linux environment.
- Possibility to develop in C / C ++, C #, Java and Python

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MECHANICAL ENGINEERING – JANUARY 4TH IN THE MORNING

Maximum 7 participants

THEORETICAL PART

The objective of this competition is to test the theoretical knowledge normally acquired during the four years of a mechanical engineering bachelor. It is an open book test and therefore, all paper documentation is permitted.

Material provided by the delegations:

- Draft paper, pencils and erasers;
- Non-programmable calculator;
- Written notes and manuals.

Material provided by the organizing committee:

- None

PRACTICAL PART

The objective of this competition is to test the technical and practical skills that a regular student in mechanical engineering has acquired. Delegations will be given a problem, a context and a precise mandate. They will have to find a solution and present it to a jury.

Material provided by the delegations:

- Non-programmable calculator, draft paper, pencils and erasers;
- Rule, angle and angle protractor;
- Hot glue gun and hot glue sticks;
- Scissors, cutter and clamps;
- Exacto;
- Small vise or clamp;
- Small hammer;
- Dremel or small drill;
- Safety glasses (one per person);

Material provided by the organizing committee:

- Everything else required for the competition



CONSULTING ENGINEERING - JANUARY 4TH IN THE MORNING

Maximum 4 participants

CONTEXT

Engineering consulting is a key branch of engineering and this, at a global scale. This competition will test the creativity, the ability to solve problems, the ease of identifying needs, as well as the talents of future engineers. This competition will regroup most fields of engineering, it is therefore strongly recommended to send representatives of different disciplines.

Material provided by the delegations:

- Draft paper, pencils and erasers;
- Non-programmable calculator;
- Written notes and manuals;
- USB key;
- Oral presentation template (ex: PowerPoint) in the colors of your delegation.

Material provided by the organizing committee:

- A computer WITH Internet access with the following software :
 - Microsoft Word
 - Microsoft Excel
 - Microsoft PowerPoint

** One USB key per team. It should contain only the oral presentation template. The key must be handed over at your arrival at the competition to the person in charge of the inspection of the key.*



THE MAJOR COMPETITION - JANUARY 4TH 11:00 AM TO 5:00 PM

Maximum 6 participants

(Ideally one per program listed at page 6)

CONTENT

The major competition will start at 11:00 am and will continue in the afternoon until 5:00 pm. Participants will therefore have a total of six hours to solve a multidisciplinary problem, make the design and calculations for the solution and then make the solution in order to present it in front of a jury. This competition will involve theoretical and practical knowledge of the six disciplines represented in academic competitions.

Material provided by the delegations:

- Draft paper, pencils and erasers;
- Non-programmable calculator;
- Soldering iron with tin wire;
- Hot glue gun;
- Laptop with the following software: Powerpoint, Arduino Software (<https://www.arduino.cc/en/Main/Software>) and any other software deemed necessary for programming a simplistic prototype;
- All the tools considered necessary for the design of an electronic and mechanical prototype (Wire stripper, screwdriver, exacto, cutter, etc.);
- Safety glasses (one pair per person);

Material provided by the organizing committee:

- Work tables with any other necessary equipment for the competition.

Team forming :

The organizing committee recommends that a team should be minimally composed of a member of each program listed above. Teams should be composed of six delegates

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CULTURAL COMPETITIONS



CONTEXT

Cultural competitions allow engineering students to stand out in a complementary field to engineering and give students the opportunity to develop highly useful skills in the professional field.

Cultural competitions include the following:

- Cultural Night (**All delegation**)
- Debates (**2 participants / delegation**)
- Trivia (**4 participants / delegation**)
- Improvisation (**4 participants / delegation**)

Each delegation will have to choose its participants in advance and no change of participants will be permitted following their registration, unless exceptional circumstances come up.



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CULTURAL COMPETITIONS



CULTURAL NIGHT (GENERAL KNOWLEDGE) - JANUARY 4TH IN THE EVENING

All the delegation

CONTEXT

* Epic music at the back of your head *

Dear future engineer, are you ready to surpass yourself? Are you ready to discover invaluable talents in disciplines you never thought of? You will have to face challenges out of the ordinary! Challenges that only a versatile and courageous human being will be able to face. Will you have what it takes to solve puzzles that James Bond himself has never succeeded to solve? Will you be worthy to share the table of the great Gordon Ramsay? Are your thumbs sufficiently trained? Future engineer, we are counting on you and we are waiting for you on Wednesday, January 4th to hear you shout: « Organizing Committee, I know the song»!

This message will self-destruct.



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CULTURAL COMPETITIONS



DEBATES – JANUARY 4TH IN THE AFTERNOON AND JANUARY 6TH IN THE MORNING

2 participants per delegation

GENERAL INFORMATION

Debates exist in various forms. Some formats are strict and picky, others are freer and accessible and to the general public. In an engineering context, where most debates will be held informally and openly, some flexibility will be allowed to the usual structure of debate competitions. The debates here consist in the application of analysis techniques, popularization and argumentation in a context comprehensible to all individuals from the engineering field and from a very rapid reflection and criticism. Since the purpose is to evaluate the ability to reason quickly and to demonstrate a capacity for forthright repartee, the participants have only a very short time to prepare their knowledge of the subject and the debate itself.

Participants will therefore be assessed on the relevance of their arguments, the clarity of their ideas, their capacity for repartee, their neat and professional presentation, their ingenuity, their originality, the structure of their argumentation and their eloquence. The debate will be between two teams, the proposition and the opposition. This document will therefore cover the logistics of the competition, the content - such as schedule, procedural points, decorum and evaluation - and the place of the debates in the Engineering Games.

NUMBER OF DEBATERS

The participants must compete in teams of two. The participants must be in the same delegation at the Engineering Games.

ALLOWED MATERIAL

Supportive materials such as papers, pencils and stopwatches are permitted at the discretion of the president and the judges. It is forbidden to use equipment that is not available to all the debaters. The use of such equipment will turn out as a penalty, which can go up to disqualification.



LANGUAGE

Resolutions will be presented in both official languages of Canada: French and English. Each participant may choose to speak in the language of his choice, but he will have to stick to the same language throughout his speech. It is the responsibility of the participants to understand both languages. The organizing committee will ensure that the judges and the president understand both languages. Each team will have the right to request a translation from the president when a question is asked, but only at that time. The time needed for translation will not be taken into account by the timekeeper.

THE ORGANISATION

DIRECTOR OF THE COMPETITION

The director is responsible for all the organization of the debates competition. The director is responsible to pick out the presidents, the judges and the timekeepers. He writes all the propositions of the debates and sets up the format and timetable of the tournament. All the final decisions about the competition belong to him, but he cannot under any circumstances play a decisive role in the outcome of a debate. In addition, it is primordial that the director have a credible experience in debates.

PRESIDENT

The president is the expert in charge of the interpretation and application of procedures and rules for debate. He must be an impartial referee and ensure that the judges have a good understanding of the debates' rules. The president is the person in charge of the respect of the decorum and the debates' rules. He grants the rights to speak and ensure the respect of the time constraints. In addition, he is responsible for giving the decision in relation to the procedure points requested by the debaters. It is important to note that the president never brings a procedural point on its own initiative. Therefore, the procedure points not taken up by the debaters will not be included in the evaluation of the debate by the judges. Any decision taken by the president is final and without appeal.





JUDGES

An odd number of judges is required to evaluate the argumentation, the communication talent and the team spirit of the competitors. It is necessary for judges to possess the level of general knowledge of an average engineering student, but it is not necessary for him to possess technical knowledge related to the topics of discussion. However, it is preferable that judges have some prior experience in debates, since it will be their responsibility to decide which team wins or loses. The credibility of the competition is therefore based on the quality of their judgment.

TIMEKEEPER

The timekeeper is responsible for ensuring that competitors respect the time that is allowed to them. He will inform the debaters of the remaining time by means of signs and shall also notify the president of the remaining time. It is important to note that the timekeeper will not intervene in any kind of way in the debate. The president is responsible for enforcing the time indicated by the timekeeper.

Signals of the timekeeper during the debates:

- When 30 seconds have elapsed, the timekeeper will raise an open hand which means the beginning of the question period;
- When 1 minute has elapsed (and therefore only one minute remains in the speech), the timekeeper will raise his index to signify the remaining time;
- When there is only 30 seconds left in the speech, the timekeeper will raise his closed fist which means the end of the question period;
- When there is only 15 seconds left in the speech, the timekeeper will bring his arm in a 90 degrees angle and gradually lower its vertical arm in the manner of a needle of a clock. When his arm is completely down, time is up. If a debater knocked on the table during these 15 seconds, a "grace period" of 15 seconds is given to the debater. The timekeeper shall therefore do the same procedure during the last 15 seconds of that period.



RULES AND ELEMENTS OF THE DEBATE

ELEMENTS OF THE DEBATE

- One team will represent the proposition, the other will represent the opposition. These positions are randomly attributed before revealing the motion, so that the subject does not influence the position of the teams.
- An argumentation plan must be stated by the first speaker of each team in his opening speech. All elements in the plan must be brought up in his talking time. It is not possible to add arguments that were not presented in the initial plan.
- All the arguments of a team must be made during its first two speeches. The parties cannot bring up a new facet in their argumentation during the conclusion. To open a new argument which the opposing party will never have the opportunity to debate would seriously break the spirit of the debates. On the other hand, parties are free to add new examples and illustrations or to refute and reconstruct the arguments brought by the other party. It is possible to bring a new element if and only if it amplifies or is directly opposed to an idea previously expressed.
- Each team should ask at least one question to the opposing team during a debate. Questions cannot be asked in the first and last 30 seconds of a speech and they should not take more than 15 seconds, otherwise the president will cut the speaker and the debate will continue without taking the question into account.

DECORUM

- Debaters must speak at all time to the president.
- Participants must show courtesy and respect for judges and the president, as well as their opponents. It is not discourteous for a speaker to describe the confusion, error, lack of seriousness, inadequate words or wrong judgment of the opposing team, as long as these remarks do not use rudeness, swearing, abusive or gratuitous qualifications, expressions of a discriminatory nature or attacking the person in his integrity or his appearance.
- Members of a team wishing to communicate with one another should preferably do so in writing. They may, however, occasionally exchange a few whispers if they are not intended to disturb the present speaker. However, it should be noted that brief exchanges used sparingly are permitted; they should be aimed at giving life to the debate without disrespecting the opponent speakers.



- Participants can and should ask questions of the opposing speakers. To demonstrate their willingness to ask a question, the participant must stand up and wait for the president to give him the right to ask his question with a gesture of the hand. If the speaker who is doing his speech does not want to take the question, he has to signify it with a sign of hand or a verbal response to that effect. It should be noted that on the third attempt, the speaker is obligated to accept the question. The president will ensure compliance with this rule. The time taken for the question to be asked is not taken into account by the timekeeper. On the other hand, the time taken by the speaker to reply to the question is taken into account by the timekeeper.
- Participants cannot applaud during a debate. They may, however, show contentment, support or joy in the expression of ideas by beating their desk with one hand, which is the custom in a parliamentary chamber, or by expressing interjections. The spectators are invited to applaud silently by raising their hands and by making them tremble.
- Physical contact between debaters will be limited to handshakes or other customary support gesture before and after the debate.
- A team attempting in a clear and unequivocal way to distract the opposing speaker will be subject to severe penalties on the evaluation grid.

PROCEDURAL POINTS

To signify a procedural error, a member of the opposing team must stand up, say "point of procedure", wait for the president to grant him the right to speak and then clearly indicate the nature of the error to the president. The acceptance or the dismissal of the point of procedure is the sole responsibility of the president and his decision is final, without appeal. Please note that time is stopped during a procedural point and will resume when the president gives the right to speak to a debater.

The following is a list of the admissible points of procedure:

- **Case of truism:** This point of procedure is undoubtedly the one that can overturn a debate. A case of truism occurs when the proposal is redefined in such a way that a debate cannot take place since it lays down a fact or a tautology. To raise this point of procedure, the team that wants to bring it must wait until the end of the speaker's speech which committed the truism and then report it to the president. If accepted, the truism case will give power to the opposing team to redefine the proposal and thus give the opportunity to completely invalidate the speech already pronounced. If it is refused, the debate will continue with the redefinition that was introduced.



- **Specific knowledge (in the redefinition):** In order to ensure a debate of quality and to give a chance to all the debaters, the debate must be on a subject which is accessible to an average engineering student. Therefore, if an aspect of redefinition involves knowledge that an average engineering student does not have, there is a case of specific knowledge. To raise this point of procedure, the team that wants to bring it must wait until the end of the speech of the speaker who committed the specific knowledge and then report it to the President. If accepted, it will empower the opposing team to redefine the terms of the specific knowledge and thus it will provide the opportunity to invalidate this portion of the redefinition. If it is denied, the debate will continue with the redefinition that was introduced.
- **Specific knowledge (in the argument):** If an aspect of an argument calls for a knowledge that an average engineering student does not have, there is a case of specific knowledge. To raise this procedural point, the team must report it immediately to the president, who will stop the debate. If the point is accepted, the president will ask the speaker to withdraw or modify the relevant argument and he will ask the judges not to take it into account. If it is refused, the debate will continue, taking into account the argument made.
- **Debater directly addressing an opposing debater:** Like all debaters shall speak directly to the president at all time, a debater speaking directly to another debater is a breach of decorum. The debater who wants to bring this point will do so immediately and the president will correct the situation if necessary.
- **Inaccurate quote:** If a debater is incorrectly quoted by another speaker, he may immediately report it to the president. If the procedural point is accepted, the president shall ask the speaker to withdraw or amend the relevant citation and he will ask the judges not to take into account the initial citation. If it is refused, the debate shall be continued taking into account the initial quote.
- **New argument in the conclusion:** Since the spirit of the debate implies there is an exchange between the two teams, it is formally forbidden to bring a new argument in the concluding speech that was not brought up in the debate. To raise this point of procedure, the opposing team must immediately report it to the president, who will stop the debate. If the point is accepted, the president will ask the speaker to withdraw his argument and he will ask the judges to ignore it. If it is refused, the debate will continue taking into account the argument.

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- **Introduction of parts of a plan by the second speaker:** The responsibility to put out a plan of argumentation rests with the first speaker. Thus, if a second speaker approaches a subject of argumentation which was not brought up beforehand by the first speaker, there is a fault. In order to raise this procedural point, the opposing team must immediately report it to the president, who will stop the debate. If the point is accepted, the president will ask the speaker to withdraw the relevant argument and he will ask the judges to disregard it. If it is refused, the debate will continue taking into account the argument made.
- **Unprofessional or offensive behavior:** If a speaker demonstrates unprofessional behavior by being vulgar, displaced or simply lacking class, there is a clear lack of decorum. In this situation, the president will ask the speaker to correct the situation. If he refuses, he may cause his team to be disqualified from the competition.

RESOLUTIONS

The director of the competition will decide the nature of the resolutions. They will touch points on which a regular student in engineering should be able to defend an opinion without any preparation. The resolutions will not include truisms (truths of evidence) and will avoid the use of words of absolute nature such as "all", "everyone" and "always". (Ex: "Be it resolved that all engineers find mathematics easy" is not a good resolution as there are always exceptions.) Once the 2 teams have read the resolution, they will have 2 minutes to prepare the debate. The nature of resolutions can be very serious as very wacky.

All resolutions and their translations will be validated by the director of the competition and the presidents before the competition.



STRUCTURE OF THE DEBATE AND ROLES

STRUCTURE OF THE DEBATES

Preparation

- Position draw: <30 seconds
- Unveiling of subject: <30 seconds
- Preparation of the argument: 2 minutes

Arguments

- First speaker of the proposition: 2 minutes
- First speaker of the opposition: 2 minutes
- Second speaker of the proposition: 2 minutes
- Second speaker of the opposition: 2 minutes

Conclusion

- First speaker of the opposition: 1 minute
- First speaker of the proposition: 1 minute

Judgment

- Individual decision-making by each judge: 2 minutes

TOTAL : 15 minutes



ROLE OF THE PROPOSITION

The proposition must redefine the motion, that is, reduce the resolution so that the debate is concentrated on a single major topic. It is important for the proposition to avoid converting resolutions in truisms (see section on procedures). The proposal should also avoid debates on topics involving specific knowledge.

Advantages

- The proposition can redefine the resolution as it sees fit, without drastically changing the meaning of the terms (for example, a table cannot become an elephant). This redefinition prevents a good preparation of the opposition.
- The proposition opens and closes the debate, giving it the first and last words.

Disadvantages

- The proposition has the burden of proof. This means that it must demonstrate to the judges that the proposition is better than the *status quo*.

1st speaker: The first speaker of the proposition opens the debate. He sets out the subject, redefinitions, exposes the argumentation plan and sets out the first arguments. He is also the one that closes the debate.

2nd speaker: The role of the second speaker is to refocus the debate and strengthen the position of his team. He must complete his team's argumentation plan and refute the arguments of the opposition.



ROLE OF THE OPPOSITION

The opposition must contradict the resolution by all means. They must rise a reasonable doubt from the judges that the resolution is worse than the *status quo*.

Advantages

- The opposition does not need to demonstrate the merit of their own position; they only need to destroy the merit of the opposing position. They must show that the motion has more disadvantages or fewer advantages than the *status quo*.
- The opposition has the speech time of the first speaker of the proposal to refine their arguments before entering the scene.

Disadvantages

- The redefinition made by the proposition can seriously invalidate the preparation of the opposition.

1st speaker: The first speaker of the opposition outlines the position of his team on the subject. He must present his team's argumentation plan, bring his arguments and refute the arguments already made. It must also close the opposition's vision on the debate.

2nd speaker: The role of the second speaker is to refocus the debate and strengthen the position of his team. He must complete his team's case plan and refute the arguments of proposition.





STRUCTURE OF THE COMPETITION

QUALIFICATION ROUNDS - WEDNESDAY, JANUARY 4TH

Presentation meeting

- Presentation of the director of the competition, presidents, judges and timekeepers
- Review of the rules

Qualification rounds

A random draw will be made to choose the teams that will compete against each other. Each team will play 3 games during the qualification rounds. Following these qualifying matches, the 8 Best teams will be selected to participate in the playoff rounds. The following criteria, presented in order of priority, will be used to determine the ranking of teams:

- The number of matches won
- The number of judges in favor of the win
- The average score
- The number of procedural points against the team

ELIMINATION ROUNDS

The top 8 teams will compete in the elimination rounds according to the following arrangement:



The order of the first four positions will only be known at the banquet. Any team declining their participation will offer the chance to all teams under them in the ranking to win a spot.



EVALUATION AND DECISION OF THE JUDGES

DECISION OF THE JUDGES

The debate is judged on the team that best convinces the judges. Each judge will decide individually the winner of the debate and give his vote to the president. He will count the votes and announce the winner. The judge may vote either for the proposition or for the opposition and cannot vote for a tie. The verdict of the match is final. Moreover, the president and the competition director have no power over the judgment issued by the judges.

FEEDBACK

At the end of each preliminary debate and following the announcement of the winning team, the judges can give feedback to competitors in writing, on the evaluation sheet they will have. These forms will be returned to the teams as soon as they are completed and photocopied. This feedback will not be made during the elimination rounds.



EVALUATION CRITERIA

The assessment grid used by the judges to determine the winning team is shown below. The team with the most points must be declared victorious by the judge.

Barème - Débats Oratoires			
Proposition :		Opposition :	
Qu'il soit résolu que ...			
Arguments proposition	Contre-arguments opposition	Arguments opposition	Contre-arguments proposition
→	→	→	→
→	→	→	→
→	→	→	→
Évaluation proposition		Évaluation opposition	
Argumentaire	0 1 2 3 4 5 6 7 8 9 10 (X6)	<input type="text"/>	
Diversité et nombre des idées			
Force des arguments			
Structure de l'argumentaire			
Originalité			
Cohésion de l'équipe	0 1 2 3 4 5 6 7 8 9 10 (X1)	<input type="text"/>	
Vocabulaire et élocution	0 1 2 3 4 5 6 7 8 9 10 (X3)	<input type="text"/>	
Total		<input type="text"/>	
Pénalités		Pénalités	
Points de procédure accepté contre	0 1 2 3 4 5 6 7 8 9 10 (X5)	<input type="text"/>	
Note finale proposition		Note finale opposition	
	Évaluation	=	<input type="text"/>
	Pénalités	-	<input type="text"/>
Grand total		=	<input type="text"/>

CULTURAL COMPETITIONS



TRIVIA – JANUARY 4TH IN THE AFTERNOON

4 players per team

CONTEXT

The trivia competition is strongly inspired by the CBC television game show “Budding Genius” where two teams of four players try to respond as quickly as possible to various questions of general culture. Combining general knowledge, culture and speed of the thumb, this activity continues today mainly to a school level, but also through many civil leagues.

This competition will take place during half a day, where each match is of a maximum duration of 15 minutes with a break of 10 minutes allocated between each confrontation to allow travel time and team changes.

THE TEAMS

Each delegation must provide a team of four members. One of the members acts as captain of the team. He must be present at the captains' meeting before the start of the tournament and will be the only person who can challenge the validity of a response (see rules).

STRUCTURE OF THE COMPETITION

The competition will include a preliminary phase where the teams will be separated in two groups to establish an initial ranking. Thereafter, the two (2) best teams of each group will enter the elimination round.



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CULTURAL COMPETITIONS



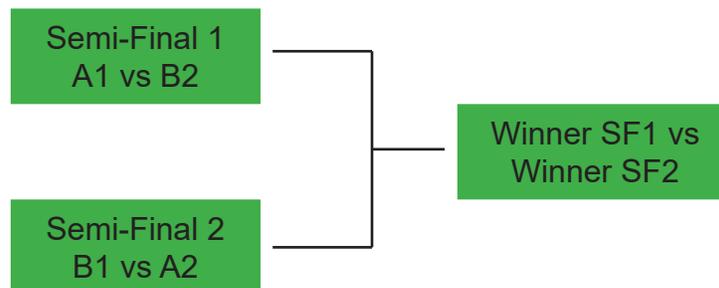
PRELIMINARY ROUND (ROBIN ROUND)

A random draw will be conducted to select teams from each group. There are two groups consisting of five teams each. Each team will play four games during this round in robin round format, which means they will play once against each team of their group. At the end of the preliminary round, the top two teams will advance to the elimination round.



ELIMINATION ROUND

The elimination round begins directly in the semi-finals, where the first team of each group faces the second team of the other group. The two losing teams of semi-finals will compete in the bronze final and the two winning teams will compete for the grand finale.





RULES

- 1. Number of players:** If a team has less than 3 players at the beginning of the match, they lose the match by forfeit. For teams with 3 players, the question involving the absent player is addressed only to his opponent.
- 2. Delay:** A break of 10 minutes is allocated between each match for travel time and team changes. After this delay, the late teams lose by forfeit.
- 3. Substitution or addition of players:** No substitution or addition of players is allowed after the beginning of the match.
- 4. Player Identification:** Each player must legibly write his first name and the first letters of his family names (eg Judith M.-B.) on the support available to identify themselves.
- 5. Penalty for early wrong answer (minus 10 point rule):** For all questions (unless mentioned otherwise), a player who dares to respond before the end of the statement of the question and gives an incorrect answer will get a minus 10 point penalty for his team.
- 6. Knowing how to play:** The smooth running of the match and the "knowing how to play" require that the players wait to be named before answering. However, a response from a player who does not expected to be named by the reader will not be denied. Conversely, a player has the right to wait to be named by the reader before answering. If the player who answers is not the same as the one having the right to speak, the reply is denied and a reply is permitted (if applicable).
- 7. Right of consultation:** In questions with rights of consultation, as soon as a player presses on its button, any consultation becomes prohibited.
- 8. Player Response:** If a player gives more than one answer, only the first answer will be considered, even if it is incomplete. Also, if a player surrounds the correct answer of wrong elements, the answer will be rejected.
- 9. Names of Individuals:** When the reply is a person, the family name only is accepted as a response unless otherwise stated. If a player dares to give a first name and that it is erroneous, the answer is refused.
- 10. Game language:** All questions will be asked in French with a translation of technical terms in English. The answers can be given in French or in English.

(Continued on next page)



- 11. Enumeration:** When more than one item is required in the answer, the points will be granted only if all elements have been given correctly.
- 12. Authorized Material:** For all questions, players are entitled to use blank paper and a pen, which will be made available to them.
- 13. Coaches and public:** A coach and any member of the public may not enter in communication with players during a match. In the event that there is an answer blown by the public, the question will be canceled and replaced.
- 14. Tie and prolongation:** At the end of a match, if the result is equal between the two teams, 5 "quick" questions will be asked. If the tie persists, other questions of this type will be asked until a team gets a good answer. This team will then win the game.
- 15. End of Game:** A match lasts a maximum of 15 minutes. The chronometer begins at the time indicated on the schedule. After 15 minutes, the match ends and the points are as they are.
- 16. Appeal:** In case of an appeal over the issue of a match (missed reply, wrong player answering a question, blown answer, etc.), the judge of the game has the last word. The captain will be responsible for forwarding his appeal to the judge during the game, in a respectful manner. The verdict will be given immediately by the judge. In the event of an appeal of the validity of a reply, the captain may give his appeal to the person in charge of the competition. To do this, the captains of both teams must present in order to confirm the facts and be informed of the result. Any appeal which does not concern the validity of the question will be rejected at this step.
- 17. Formalization of results:** After a match, the captains of the two teams must sign the score sheet to seal the outcome of the match.

CULTURAL COMPETITIONS



MATCH FORMAT

The match format is subject to change.

Category	Type of questions	Number of questions	Points/Question	Possible points (per team)
Video Games 1	Face off	8 (4 per team)	5	20
Geography	Collective	4	10	40
History	Collective	4	10	40
Anagrams	Collective	4	10	40
Arts & Literature	Collective	4	10	40
Sports	Collective	4	10	40
Sciences & Technology	<i>Vis-à-vis</i>	4	20 or 10	80
Video Games 2	Collective	4	10	40
Actuality and World	Collective	4	10	40
Identification	Identification by clues	3 clues	40, 20 or 10	40
Video Games 3	Collective	4	10	40
Quick questions	Collective	15	10	150
Total		62	10	610



TYPES OF QUESTIONS

1. **Face-off:** This type of question allows to set the atmosphere, present the players and test the buttons (triggers). The reader asks an individual question to each player, in turns. Before responding, the player must press their button. No consultation or right to reply. Five points per correct answer. The 10-point penalty does not apply here.
2. **Vis-à-vis:** These are questions of speed asked to a player in each team (player # 1 vs player # 1 and so on). The first player to get the right to answer gets twenty points if he gives the right answer. If he misses, a right to reply is given to the opponent for ten points. The 10-point penalty applies.
3. **Collective:** Questions asked to both teams, without consultation. The first player who presses its trigger has the right to speak. If the answer is false or if the player cannot respond, a right of reply is granted to the opposing team, always without consultation. A good answer is worth ten points. The 10-point penalty applies.
4. **Identification by clues:** A series of three questions with consultation to identify a person, a thing, a place, an event, etc. Each question provides a clue, in decreasing order of difficulty. If a player gives the right answer after the first clue, he obtains forty points. The correct answer is worth twenty points after the second clue and ten points after the last clue. The right of reply is possible at each clue, but a team can give only one answer per clue. The 10-point penalty applies.
5. **Quick questions:** Short questions asked quickly. A good answer is worth 10 points. The 10-point penalty applies.

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IMPROVISATION – JANUARY 4TH IN THE AFTERNOON AND JANUARY 5TH IN THE EVENING

4 participants per delegation

SUMMARY

Improvisation matches were invented in Quebec in the late 1970s by the Robert Gravel and Yvon Leduc duo. An improvisation match brings together two teams seeking to perform an improvised performance in a concept inspired by the hockey game.

DURATION

- Qualifying matches last 15 minutes and include 3 improvisations.
- The semifinals and bronze final have a duration of 30 minutes and include 5 improvisations.
- The final is 45 minutes long and includes 7 improvisations.

COMPOSITION OF THE TEAMS

Each team is composed of 4 players and must have a minimum of one player of each sex. A team with an incomplete alignment will automatically receive a penalty for an illegal number of players at the start of the match.

STRUCTURE OF THE COMPETITION

1. Announcement of the improvisation card

The referee reads the improvisation card aloud: the nature, the theme, the number of players, the category and the duration of the match.

2. Concertation

The players and the coach of each team have 30 seconds to concert and take place on the ice rink. The referee signals the start of the improvisation with a whistle.



3. Distribution of points

3.1. Points awarded by votes

After each improvisation, the referee asks the public and the two judges to vote for the best improvisation. Public vote counts for one vote (determined by the majority of the votes) and the vote of each judge counts also for one vote. The team who accumulated the most votes (out of 3) wins the point. If less than 10 spectators are present during a match, the public vote will be replaced by a vote from the referee.

The referee has the power to request a recount of the public votes to his line judges. No recount request from a team will be permitted. If there is a tie, one point is awarded to each team.

3.2. Points obtained by penalty points

The penalized team receives one or two penalty points depending on the nature of the infraction (minor or major). The minor penalty, unlike the major penalty, does not deliberately destroy the game. The accumulation of 3 penalty points by a team automatically gives a point to the opposing team.

3.3. Explanations

After a penalty, the team captain has the right to request an explanation from the referee. If it's the captain that is receiving the penalty, he will be replaced by the assistant captain.

DECORUM

THE REFEREE

The referee is the absolute master of the game. At any time, he may impose a penalty on a player or on a team for any infraction harming the quality of the game. His decisions are final.

THE CAPTAIN

The captain of a team may request explanations from the referee regarding his decisions following the announcement of the penalties. He is entitled to a question and a reply. Brevity and politeness is a must. In case of any abuse, the referee may impose an additional penalty.





THE COACH

A team may have a coach present on the bench. He may be a member of the delegation or a godparent, but may not be a player who has been expelled from a previous game.

THE SUBSTITUTE PLAYER

A substitute player may accompany the team and replace a player between two games.

THE MATCH SPACE

The match space is delimited by the bands that make up the ice rink. To be part of the ongoing improvisation, the player must physically enter the rink. A player who has done an intervention and who wishes to withdraw from the match must remain within the bands and maintain a neutral position (the small ball). For a short off-field intervention, the player may remain on the bench.

THE NEUTRAL POSITION

After being in the neutral position, the player can return to the current improvisation with a character he has already played during this one or with a new character. He cannot in any case communicate with the players on the bench.

COMMUNICATION ON THE BENCH

In mixed improvisation, the players and the coach can communicate with each other. In compared improvisation, the team that is not playing cannot communicate. An illegal procedure penalty will be given if verbal or non-verbal communication is used.

DRESS CODE

Each player shall wear black pants, a non-attracting shirt and shoes. The shirt may represent the university or theme of the team and must be the same, or at least the same color, for the entire team. It is strongly recommended to tie long hair, to not wear any jewelry or watch and to not chew gum.



PENALTIES

- 1. Illegal accessory:** a player uses an accessory other than his or her sports shoes, pants, shirt or hockey jersey (watch, glasses, long hair, etc.).
- 2. Cabotinage:** a player tries to attract the favor of the public by saying jokes outside the context of the improvisation. Free references to sexual elements or inappropriate elements are also considered as cabotinage.
- 3. Cliché:** A player plays a scene or story that has already been seen elsewhere. Abusive reuse of a character already seen during the tournament is also a cliché.
- 4. Confusion:** a team or player loses the thread of the story. History is no longer meaningful and its development is disturbed.
- 5. Stalling:** A player loses concentration and comes out of his character.
- 6. Lack of listening:** a player forgets elements of the story like the names of the characters or where it is located.
- 7. Illegal number of players:** the team sends more (or fewer) players than request.
- 8. Failure to respect the theme or the category:** the team plays without worrying about the theme or the category given by the referee.
- 9. Character Refusal:** A player forgets his character on the way.
- 10. Game delay:** a team is slow to start an improvisation at the whistle signaling the end of the coccus, a player prevents the situation from advancing, the course of the game is slowed down by untimely intervention or a captain stretches his requests for explanations.



11. Roughness: A player refuses to cooperate with other players, imposes a character or ideas to another player, or physically hurts a player.

12. Illegal procedure: a caucus extends beyond the allowed time; there are communication between the bench and the players involved; there is discussion on the bench of the team that does not play.

13. Misconduct (major penalty): a player harms in a major way the performance or engages in unsportsmanlike behavior. Since this is a major penalty, the player is automatically expelled.

14. Expulsion: Any player who has collected two minor penalties or a major penalty during the same game will be expelled until his next game. Expulsion erases penalty points of the player if they have not already been counted.

CATEGORIES

1. Free: The players can draw inspiration from what they want to create their improvisation. They must remain within the physical limits of the rink.

2. In the way of: The players are inspired by the chosen subject (horror film, american soap, tale for children, etc.) to make an improvisation in their own way.

3. Accessory imposed: The players use the accessory imposed by the referee. The use of the object must be different from that of real life.

4. Sung: Players sing. The air of the song can come from an existing work.

5. Exaggeration: The improvisation takes place in three stages. First, a normal improvisation is played. A second improvisation slightly exaggerates the history of the first improvisation. Finally, a third improvisation EXAGGERATES VERY MUCH the first story.

6. Shooting: A player receives the title of his improvisation just before playing it.



7. US doubling: The players double the voice of other players on the rink; the players on the ice are not allowed to speak.

8. Narration: A player tells the story to the audience; the other players make the history under the orders of the narrator, but they can also speak.

9. Pursuit: A team starts the improvisation. At the whistle, the team freezes to let the story to the other team.

10. Quick change: When the referee whistles, the players must resume their last sentence and change it completely.

11. Regression: The same improvisation is played in 2 minutes, 1 minute and 30 seconds.

12. Rhymed: Players make rhymes (or make serious efforts to achieve them).

13. Video: The referee imposes a song or a musical piece on the players.

14. Videoway: Three improvisations in duo are played alternately (V1, V2 and V3). The goal is to create different sketches according to the imposed situation.

15. Zapping: When the referee whistles, the players must be inspired by their position and start again a new improvisation.

16. Category of the referee: The referee may impose on the players a category rarer than those already defined. This category will be explained to the teams.

CULTURAL COMPETITIONS



TOURNAMENT

QUALIFICATIONS - JANUARY 4TH 2016 (2 PM TO 5:30 PM)

During qualification rounds, the ten delegations will be drawn by lot in two pools and each delegation will play three games (these games will also be drawn by lot). The two best teams from each pool will advance to the semifinals on the next day. Classification will be made according to the wins, the differential (number of improvisations won) and the received penalties.

- A win is worth 2 points
- An overtime defeat is worth 1 point
- A defeat in regular time or by forfeit gives no point

In the event of a tie, there will be six shootout improvisations (three on each side) to decide the winner.

FINALS - JANUARY 5TH 2016 (IN THE EVENING)

There will be four games during the finals: two semi-finals, one bronze final and one grand finale. The winning team will return home with the famous Engineering Cup.

In the event of a tie, there will also be shoot-out improvisations to decide the winner.

SPORTS COMPETITIONS



SPORTS - THURSDAY, JANUARY 5TH 2016 ALL DAY

All the delegation

CONTEXT

The sports competitions will take place throughout the day of January 5th and will take the form of 5 friendly tournaments that will be played in parallel. Each delegation shall distribute its delegates in the different proposed sports.

The 5 proposed sports will be the following:

- The Pokéball
- The SuperSmash Kin
- The Tchoukball
- Call of Duty - Infinite Connection
- The swimming pool sport

HEALTH, SAFETY AND HYGIENE

- Wearing sports clothes and shoes is mandatory for all gym sports.
- Swimwear and bathing helmets are mandatory for all pool sports.
- Wearing a full snow suit is mandatory for all outdoor sports.
- Long hair shall be attached.
- Jewelry is prohibited.
- It is forbidden to eat or smoke in all the sports facilities.

BEHAVIOR AND SPORTSMANSHIP

- Participants should be in a suitable physical and psychological condition.
- Aisles and corridors should be accessible at all times to allow potential evacuation.
- Leave the non-essential material for the tournament in the lockers.
- Participants should listen to the volunteers' instructions.
- Participants must respect the decision of the referees, which are final and without appeal.

SPORTS COMPETITIONS



TOURNAMENT SCHEDULE

Tournaments will have a preliminary round, followed by simple eliminations. All teams will play a minimum of 3 games and the starting order will be determined randomly. Then, the ranking will be done according to the evaluation card and a differential of points, until the 3 positions on the podium are awarded.





POKÉBALL

2 teams of 4 players

It is strongly recommended that players bring knee protections.

CONTEXT

I wanna be the very best, like no one ever was. To catch them is my real test, to train them is my cause. Smashes will no longer be a mystery. You will have the secret of their power. POKÉBALL.

Here you are now among the great ones, in a big fight in a Pokémon masters arena. As the Pokémon trainer in you could notice, this gargantuan sport is based on the same principle as a volleyball match. The first team to score 21 Points wins the Pokémon fight.

However, each team of trainers will be composed of 4 players, each representing one element: Earth, Water, Fire and Electricity. Thus, throughout the game, the antagonism of the elements in Pokémon mythology should apply. For example, in the case that team A is in possession of the ball, if the ball is sent by the electricity player of the team A towards the field of team B, the water player of team B does not have the right to receive the ball. If he receives it anyway, the ball is considered to have touched the ground and team A scores a point. It is therefore to the fire, electricity or earth players of team B to receive the game ball.

The antagonisms to be respected will be the following:

1. Water cannot receive electricity.
2. Fire cannot receive Water.
3. Earth cannot receive Fire.
4. Electricity cannot receive Earth.

To help recognize the elements, each player will have a colored *dossard* representing its element (blue, red, yellow or green).



REMINDER OF THE GENERAL RULES

- To score a point, Team A must send the ball to Team B ; the ball must cross the net and touch the ground within the boundaries of the field.
- A maximum of 3 contacts with the ball is permitted before returning the ball to the opposing team.
- A player may not make more than one contact with the ball in a row.
- If the ball lands on the line of the field, the ball is considered "in" and there is a point for the offensive team.
- If Team A sends the ball, but it does not cross the net or it falls outside the area of the field, or if, by passing the ball, it falls to the ground on Team A's side, Team B scores a point.
- It is forbidden for players to touch the net.
- If, in attempting to send the ball to the other side, the ball touches the net and remains on the same side of the net, then the first attempt to send the ball is considered a contact, the net counts as a second contact and the team is therefore entitled to a third contact to attempt to send it back to the other side of the net.

Note that any decision made on the spot is at the discretion of the referee.



SUPERSMASH KIN

3 teams of 4 players

It is strongly recommended that players bring knee protections.

CONTEXT

Oh yes! Your Kinball talents developed during elementary school to impress the sweet Elizabeth will finally be put to good use: welcome to the world without mercy of Supersmash Kin. The principle is simple: 3 teams of 4 players on the field compete in a match of inflamed KinBall for 20 minutes. However, in addition to the classic way of scoring points, you will have the chance to test your new powers with special attacks!

GENERAL RULES

- A game lasts 20 minutes.
- 3 teams of 4 players play simultaneously in the field.
- If a foul is committed by a team, the other 2 teams earn one point.
- The "supporting position" is the position of each ball reception and each ball hit. Three players must have a knee on the ground and hold the ball in balance above their heads. The 4th player, who is not in the support position, becomes the "striker".
- The different ways to score points are explained below.

RULES FOR HITTING THE BALL (FOR THE TEAM IN POSSESSION OF THE BALL)

- Three players must be in support position. The 4th becomes the striker and is standing.
- The striker must shout: "1 TEAM COLOR + ATTACK NAME" before hitting.
- The ball must be hit upwards or horizontally.
- The ball must travel at least 2.50 m before touching the ground. The distance judgement is at the discretion of the referee.
- The ball can be struck with all parts of the body.
- If the ball touches a wall before touching the ground, the throw is at fault. It restarts. However, the throw is good if it first touches an obstacle of the gymnasium (ex: basketball hoop).





RULES FOR RECEIVING THE BALL

- Any contact with the ball is prohibited if the team is not called: it is an obstruction.
- If it is voluntary, the point is given to the other two teams, if it is involuntary, the throw is to be repeated.
- Any contact with an opponent is forbidden: it is an obstruction.
- If it is voluntary, the point is given to the other two teams, if it is involuntary, the throw is to be repeated.
- It is forbidden to use the floor or the walls to receive the ball.
- You can control the ball with any part of the body, but do not imprison it with the arms, or hold it by the little opening.
- From the moment the ball is hit, the team called has 10 seconds to receive the ball, stabilize it and make a new face-off.

WAYS TO SCORE POINTS AND SPECIAL ATTACKS

1) SUPERSMASH

- It's the "classic" way to score a point in KinBall.
- To score a point, a team must send the ball so that it touches the ground while calling an opposing team to catch it.
- An opposing team is called by shouting "1 TEAM COLOR + SUPERSMASH" before knocking the ball.
- If the ball touches the ground, the offensive team scores a point.
- If, however, the called team succeeds in catching the ball and stabilizing it in the supporting position, it is the two defensive teams that each score a point.



2) FALCON PUNCH

- Used by shouting "1 TEAM COLOR + FALCON PUNCH" before hitting the ball.
- The goal of this attack is to touch with the ball a member of the called team.
- There is no minimum firing distance for this attack.
- If a player of the called team is touched, the offensive team gains 2 points + 1 point per additional player touched.
- If the offensive team does not touch any player of the called team, the other two teams each earn 1 point.
- Each team is entitled to a maximum of 3 FALCON PUNCH per game.

3) REFLECTOR

- This attack is used as a defense against FALCON PUNCH.
- When the offense team uses a FALCON PUNCH, the called team can either avoid the ball or use the REFLECTOR.
- The REFLECTOR is used by shouting "REFLECTOR" after the offensive team has launched a FALCON PUNCH.
- If, after screaming "REFLECTOR", the player who used it has successfully returned the ball to another player by a hit on the fly, the affected team loses 2 points.
- The "REFLECTOR" must be shouted before hitting the ball.
- The "REFLECTOR" can only be shouted when the offensive team has already struck the ball.
- In the case that a REFLECTOR is used against one of the other two teams (the offensive team or the third team), the players concerned must avoid the ball but cannot also use a REFLECTOR.
- REFLECTORS are unlimited.

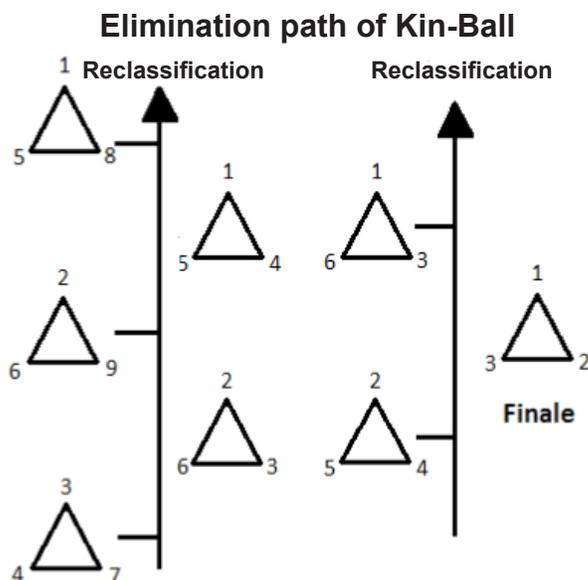


4) THUNDER

- Used by shouting "1 TEAM COLOR + THUNDER" before hitting.
- The goal of this attack, as for the FALCON PUNCH, is to touch with the ball one member of the called team.
- There is no minimum firing distance for this attack.
- If one or more players of the team called is touched, the players are then paralyzed during 2 strikes: they must stop at the place where they were hit and stand there, with their arms crossed in front of them. They cannot play during this period.
- If no player is hit, no points are made and the ball goes to the team that was called.
- A paralyzed player may be targeted during a PUNCH FALCON.
- A paralyzed player may be targeted by a REFLECTOR.
- A paralyzed player targeted by a FALCON PUNCH or REFLECTOR cannot use a REFLECTOR but his teammates can protect him.
- When a member of a team is paralyzed, for the next two strikes, if his team must be in a supporting position, this one must be done with 2 players supporting the ball + 1 striker.
- Each team is entitled to a maximum of 3 THUNDER per game.

TOURNAMENT

To start the tournament, teams will be randomly selected to determine the order of the first matches. Then, only the 9 best teams will go to the elimination rounds according to the following path:



SPORTS COMPETITIONS



The ranking is based on the score obtained. The final will then be played between the three best teams and the final score of this match will determine directly the 1st, 2nd and 3rd position. In case of a tie for this final, it will be the total number of points since the start of the tournament that will determine the positions on the podium.

Note that any decision made on the spot is at the discretion of the referee.





TCHOUKBALL

2 teams of 7 players

It is strongly recommended that players bring knee protections.

CONTEXT

The game is practiced on a ground with a "tchouk" (inclined trampolines) at each end:



To make a point, the ball is thrown on the tchouk, bounces off and falls on the playing surface without being caught by a player of the opposing team. It should be noted that if the ball falls into the forbidden zone (3 meters radius zone shown in the figure below) surrounding the tchouk, or if the ball is caught by the opposing team, the point is not valid.





BASIC RULES

- There are 7 players per team.
- The game is played during one period of 15 minutes and the team with the most points wins.
- Each team can score points on both sides of the field.
- To put the ball back into play after a point, a player of the team which has been scored on must make a pass that must cross the center line.
- Players can make a maximum of 3 steps with the ball. Dribbling is prohibited.
- A player cannot keep the possession of the ball for more than 3 seconds.
- It is mandatory to make at least one pass before attempting to throw at the tchouk and a maximum of 3 passes is allowed. The pass made after a goal or at the beginning of the match does count not as a pass.
- A deflected ball counts as a pass.
- Whenever a player drops the ball or commits a foul, the opposing team takes possession of the ball.
- If a player throws on the tchouk frame, there is no point given.

STARTING THE GAME

- The **engagement** is the pass that puts back the ball into play after a point and does not count in the 3 passes maximum. A player of the team to whom the throw-in shall return shall be positioned on one side of the tchouk on which the point has been marked, and that, behind the end line, and pass it to his team.
- A **throw-in** is the pass that puts the ball back into play after a foul, which does count in the three passes. The throw-in needs to be done the same way as the engagement and is done by the team that has not committed the foul.

FOULS

- Physical contact is prohibited **as well as interceptions**.
- A prohibited area of a 3 meter radius is located in front of each tchouk. Players cannot enter it when they are in possession of the ball. However, they can jump in the area and get rid of the ball before touching the ground to avoid the fault. Set foot on the line of the forbidden zone is also a fault.





- If a player is hit by the ball lower than the knee (leg or foot), whether it's voluntary or not, this player is at fault and the ball goes to the other team at the place where the fault was committed.
- It is forbidden to throw voluntarily in the legs or directly on an opposing player in order to simulate an interception.
- After a foul, a player of the team who takes possession of the ball must take the ball with two hands and touch the ground at the place of infraction with the ball to restart the game. Players are allowed to continue moving.
- Interference is prohibited: one cannot stand between the shooter and the tchouk, between the ball and the defender, or between two players who make a pass. The judgment of what is an interference goes to the referee.
- A maximum of 3 consecutive shots on the same tchouk (accumulation of both teams) is allowed. Otherwise, there is a fault.
- A player in possession of the ball can make a maximum of 3 supports on the ground with the ball. Receive a ball with both feet on the ground count for support. Otherwise, there is a fault.
- A player cannot keep the ball for more than 3 seconds. Otherwise, there is a fault.



Note that any decision made on the spot is at the discretion of the referee.

SPORTS COMPETITIONS



CALL OF DUTY - INFINITE CONNECTION (SURPRISE SPORT !!!)

3 teams of 6 players with change-ups if wanted

This sport will be played outdoors. Wearing appropriate clothing is therefore mandatory. This includes full snow jackets, winter boots, hats, mittens and/or gloves.

It is important to bring replacement clothing and shoes for the breaks in the interior of the gym.

CONTEXT

Soldier, we are at war. And not just any, no. You have just entered a new dimension. Your country counts on you. You will have to defend this territory that you cherish so much. You will have to be strong and courageous. You will need to create links that you would have never thought. You will have to use strategy, rely on your past to build your future. You will have to learn quickly to put the right stones in the right places if you want to victory.

Soldier, are you ready for *Call of Duty - Infinite Connection*?



SWIMMING POOL SPORT

2 teams of 7 players with change-ups if wanted

CONTENT

This game is a combination of waterpolo and a treasure hunt. Each team is constituted of 6 players with a goalkeeper. Waterpolo goals will be installed and all kinds of floating and non-floating objects will be in the water. The rules of the waterpolo apply, you need to send the ball into one of the goals to make a point.

To start the game, both teams are aligned with their goal line and remain there until the signal of the referee, indicating the start of the game. The players of the two teams swim towards the ball as fast as possible to take possession of the ball and attack. Players can swim or pass to get to the opponent's goal and score.

Whenever a goal is scored, a 20-second timer is triggered and the image of an object is lifted. At this point, all participants of the game must go pick up the object shown on the image (there will be more than one in the water). Each amassed item is worth points. The team that collects the most objects will therefore get more points. The points awarded to each item varies depending on the difficulty of collecting them.

After a team has scored a goal and both picked up the objects, the teams must stay in their side of the pool (on their side of the midline). The ball is handed to the team against which the goal was scored. The team takes the offensive as soon as the referee gives the signal of the beginning of the game.

SCORE

A waterpolo goal: 10 points

Each objects represent a different amount of points, which will be determined just before the tournament. The amount of points of the object will be written on the image.



REQUIRED MATERIAL

- Swimsuit
- Swimming goggles
- Bathing cap

RULES

It is forbidden to :

- Go beyond the goal line at the beginning of a period, before the start signal or restart of the game.
- Keep the ball under water
- Hitting the ball with the fist
- Be within 2 meters of the opposing goal without possession of the ball.
- Holding or depressing an opponent by pushing him / her under water
- Pulling an opponent backwards
- Water an opponent's face
- Kicking or hitting an opponent (brutality)

Participants who commit these acts will be punished for 20 seconds outside the pool, leaving his team with one less person. **A person who accumulates 3 punishments will be definitely excluded from the game.**

One game has a duration of 8 minutes. Changes between players can be made between the games.

EVALUATION CRITERIA



Category	Competition / Evaluation criteria	%
Academic Competitions	Chemical Engineering	5%
	Civil Engineering	5%
	Consulting Engineering	6%
	Electrical Engineering	5%
	Industrial Engineering	5%
	Computer Engineering	5%
	Mechanical Engineering	5%
	Major Competition	6%
	Total Points for Academic Competitions	42%
Sports Competition	For each of the 5 sports	2%
	Total Points for the Sports Competition	10%
Cultural Competitions	Debates	6%
	Improvisation	5%
	Trivia	6%
	Cultural Evening	1%
	Total Points for Cultural Competitions	18%
Machine Design Competition	See Machine Design Specifications for the criteria	20%
	Total Points for the Machine Design Competition	20%
Participation	Theme (Presentation, Originality and Costumes)	1%
	<i>Dégrise</i> (Animation, behavior)	1%
	Exploit Night	1%
	Godparents' Competition	1%
	General Participation	2%
	Team Spirit	2%
	Charity	2%
	Total Points for Participation	10%
Total Points		100%

ORGANIZING COMMITTEE

The organizing committee of the 2017 Quebec Engineering Games sincerely thanks you for the special attention you have given to this document. We are extremely happy to have you join us in this epic and memorable adventure that is the 27th edition of the Quebec Engineering Games. For any questions or comments, please contact us, we will be glad to answer you!

Gabrielle Beauchamps & Arianne Boulais - Competitions
competitions@jeuxdegenie.qc.ca

Jean-François Chauvette - Co-president & communications by interim
communications@jeuxdegenie.qc.ca

Judith Mageau-Béland - Co-president & Treasury by interim
tresorier@jeuxdegenie.qc.ca

Gauthier Viau & Simon Barrette - Machine competition
machine@jeuxdegenie.qc.ca

Marie-Catherine Paquin - Social
social@jeuxdegenie.qc.ca

Marie-Lie Lévesque - Logistics
logistique@jeuxdegenie.qc.ca

Mikaël Dagenais - Financing
financement@jeuxdegenie.qc.ca

Jeux de génie du Québec
1100, Avenue des Canadiens-de-Montréal
Montréal (Québec), H3B 2S2

JeuxDeGénie

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