

English:

The University of Ottawa Great Northern Concrete Toboggan Race team is a group of over 30 engineering students from across all disciplines and years of study.

We collaborate to design, build, and race a concrete toboggan. The rules are simple: design a toboggan under 350lbs, which must have a running surface made entirely of concrete.

The toboggan also needs to hold 5 passengers within a roll cage and have a functional steering and braking system to safely maneuver down the hill.

Sustainability is an important aspect of the competition. By using different combinations of recycled aggregates from construction waste, we are looking to design a concrete mix that will be light enough for our skis to fit the weight requirement, but also durable enough to carry us down the hill.

Students from all disciplines have the opportunity to be exposed to the civil engineering field and learn about topics such as proportioning the mix design as well as designing reinforcement and formwork for the skis.

This year we are doing a complete mechanical overhaul of our previous designs.

We have remodeled our braking system and have designed a completely new steering assembly.

We're also giving our toboggan's frame a sleek new design and cutting out some of the high stress areas in order to improve the safety of the passengers.

Students are able to use computer-aided modelling in order to expand their theoretical classroom knowledge and utilize welding and fabrication techniques in order to make our design a reality.

Another aspect of the competition is spirit. Every team that participates in GNCTR has to have a unique theme, which requires the whole team to have a costume.

We also have to create a technical exhibition, or tech ex. . Which is decorated to represent our theme. The purpose of this tech ex is to present the safety and design of the toboggan to the judges and other competitors.

For over 40 years, the Great Northern Concrete Toboggan Race has provided an opportunity for engineering students from across Canada, and recently the US, to engage in friendly competition while gaining hands-on experience.

The University of Ottawa team has been working tirelessly since September to design our toboggan, but now we need your help. By donating to our team, you will allow us to afford the materials required to build and test the toboggan. *This* year, we hope to win, and it won't be possible without you.