

2020 Manitoba Robot Games Competitions

| Type | Code | Control | Upper Age limit | Max Robot Size | Max Weight | Field Size | Other Conditions |
|--------------------------------------|------------|------------|-----------------|----------------------------|--------------|---------------------|---|
| Line Follower (Scratch built) | LFS | Autonomous | Grade 12 | 20 cm wide | None | 4' x 4' sq. ea. | 4 levels of difficulty. Scratch built only |
| Line Follower (Kit built) | LFK | Autonomous | Grade 12 | 20 cm wide | None | 4' x 4' sq. ea. | 4 levels of difficulty. OK to use Lego or other purchased Kit. |
| Line Maze Autonomous | LMA | Autonomous | Grade 12 | 15 cm wide | None | Minimum 4' x 4' sq. | Should solve the maze in the shortest possible time. |
| Drag Racer Autonomous | DRA | Autonomous | University 1 | 20 cm wide, 30 cm long | None | 16" x 24' | Must start on removal of 940nm signal, stay on course then stop within 3' after finish line. |
| Tractor Pull | TPM | On/Off | Grade 12 | 10" x 14" | 10 Lbs | 24 ft long | Tracks or wheels but elastomer only. Must have a single purpose kill switch in the form of a non conductive tether that when pulled by the driver will disable the robot. |
| Lego Challenge | NXT | Autonomous | Grade 12 | None | None | 4' x 4' sq. | Lego NXT, EV3 or Boost only. Challenges the builder to program the robot to utilize different sensors and outputs. |
| Judges Choice | JC1 | Autonomous | Grade 12 | 35" W, 72" H | 50 Lb/Axle | None | Must perform a complex stated function safely, repeatedly and autonomously |
| Super Scramble Rookie | SSR | Tethered | Grade 12 | 20 cm wide | 500 gr | 2' x 16' | Accept and retain 1" steel ball, end to end. MRG Kit Only. |
| Super Scramble Light | SSL | Tethered | Grade 12 | 20 cm wide 1m Perimeter | < 0.75 Kg | 2' x 26' | Accept 1" steel ball, and deposit it into the goal at the other end. |
| Super Scramble Heavy | SSH | Tethered | Grade 12 | 20 cm wide 1m Perimeter | 0.75 to 3 Kg | 2' x 26' | Accept 1" steel ball, and deposit it into the goal at the other end. |
| Mini Sumo | MSR | Tethered | Rookie/Gr9 | MRG Sumo Kit | 500 gr | 0.77 m dia | Must use MRG Mini Sumo Kit, and be a first time MiniSumo competitor. |
| Mini Sumo | MS1 | Tethered | Grade 6 | No Size Limit | 500 gr | 0.77 m dia | Must be able to push 500 gr. No metal attack surfaces. |
| Mini Sumo | MS2 | Tethered | Grade 9 | No Size Limit | 500 gr | 0.77 m dia | Must be able to push 500 gr. No metal attack surfaces. |
| Mini Sumo | MS3 | Tethered | Grade 12 | No Size Limit | 500 gr | 0.77 m dia | Must be able to push 500 gr. No metal attack surfaces. |
| Mini Sumo | MSA | Autonomous | University 1 | No Size Limit | 500 gr | 0.77 m dia | 5 sec startup delay. No metal attack surfaces. |
| Prairie Sumo | PST | Tethered | Grade 12 | 1m Perimeter | 2.5 Kg | 1.52 m dia | Radio Control or Cat 5 or 6 & motor controller. |
| Prairie Sumo | PSA | Autonomous | University 1 | 1m Perimeter | 2.5 Kg | 1.52 m dia | 5 sec startup delay. |
| Robo-Critter | RC1 | Tethered | Grade 6 | 6" x 12" | None | 4' x 8' | RC Kit available from MRG |