

## 2019 Manitoba Robot Games Competitions

Type	Code	Control	Upper Age limit	Max Robot Size	Max Weight	Field Size	Other Conditions
Line Follower	LFA	Autonomous	Grade 12	20 cm wide	None	4' x 4' sq. ea.	4 levels of difficulty. OK to use Lego
Line Maze Autonomous	LMA	Autonomous	Grade 12	15 cm wide	None	4' x 4' sq.	Must recognize "Home" and rotate 3 times
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"	12 Lbs	24 ft long	Tracks or wheels but elastomer only
Lego (NXT & EV3)	NXT	Autonomous	Grade 12	Predetermined by using Lego NXT or EV3		4' x 4' sq.	Levels of difficulty challenging 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 stated function safely, repeatedly and autonomously
Super Scramble	SSA	Tethered	Grade 12	20 cm wide	< 750 gr	2' x 16'	Accept and deliver 1" steel ball, end to end.
Super Scramble	SSB	Tethered	Grade 12	20 cm wide 1m Perimeter	0.75 to 3 Kg	2' x 26'	Accept 1" steel ball, and deposit it at the other end.
Mini Sumo	MSR	Tethered	Rookie	MRG Sumo Kit	500 gr	0.77 m dia	Must use Manitoba Robot Games Kit
Mini Sumo	MS1	Tethered	Grade 6	No Size Limit	500 gr	0.77 m dia	Must be able to push 500 gr block
Mini Sumo	MS2	Tethered	Grade 9	No Size Limit	500 gr	0.77 m dia	Must be able to push 500 gr block
Mini Sumo	MS3	Tethered	Grade 12	No Size Limit	500 gr	0.77 m dia	Must be able to push 500 gr block
Mini Sumo	MSA	Autonomous	University 1	No Size Limit	500 gr	0.77 m dia	5 sec startup delay.
Prairie Sumo	PST	Tethered	Grade 12	1m Perimeter	3 Kg	1.52 m dia	Radio Control or Cat 5 & motor controller.
Prairie Sumo	PSA	Autonomous	University 1	1m Perimeter	3 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