

ROBOCON@MIT 2019 Starting Kit List

The following list is list of the material that is available to you, and it is intended to get you started with your design thinking. Additionally, we expect you will be using more material throughout the weeks for prototyping and testing (especially stock such as aluminum extrusion and sheet materials). As you prototype and test, you may need to request replacement material if your experiments do not work as intended. If you explain to a staff member what you did, why you thought it would work, why it didn't work, and what you will do differently next time, you will be given replacement material. Note that the items marked with the * are things that you may only request replacement of ONCE. Items marked ** do not have replacements available – if you are unsure how to use these parts, check in with the course staff. You have also been provided with one microcontroller kit – attend training sessions in the coming days to learn how to use it. The contest rules document describes material usage in more detail.

Quantity	Item Description
Tools	
6	Safety glasses (one for each team member)
Stock	
2	6063-T6 Box Extrusion - 1" x 3" x 12" - 1/8" thick
2	6063-T6 Box Extrusion - 1" x 1" x 18", 1/16" thick
2	6063-T6 Box Extrusion - 1" x 1" x 18", 1/8" thick
2	6061-T6 Flat Bar - 2" x 12" x 1/2" thick
2	6061-T6 Angle - 1.5" x 1.5" x 12" - 1/4" thick
2	6061-T6 Angle - 1" x 1" x 1/8" x 18"
2	6061-T6 Rod - 1/4" x 18"
2	6061-T6 Rod - 5/16" x 18"
2	Delrin Rod 1" Diameter x 6"
2	Aluminum 5052-H32 Sheet, 1/16" thick
2*	Plywood 12" x 24" x 1/8"
2*	Plywood 12" x 24" x 1/4"
1*	Acrylic sheet 12" x 24" x 1/4"
Wheels	
4	Solarbotics Servo Wheel
2	Low-Profile Caster Swivel
Motors	
4*	SpringRC Continuous Rotation Servo + servo horn packet
1*	Vigor VS-11 ANALOG SERVO + 2x large servo horn packet
1*	Small SpringRC Continuous Rotation Servo + servo horn packet
2*	Small SpringRC Position Servo + servo horn packet
3*	LDO Gearhead motor (one 26:1, one 57:1, plus one of your choice)
Other	
8	Constant force springs
12	Gears (4 each of 3 different sizes)
2	Gear racks
1*	24 Linear inches of timing belt
4**	Nylon flange bushings, 1/4" ID

[illegible]