



## WWFIRST 2021 Kit of Parts

Waterloo Wellington FIRST Robotics Organization is proud to offer the following Kit of Parts (KoP) to all participants to the WWFIRST 2021 Smart Robot Car Competition.

This Kit consists of items that we picked very carefully and will be distributed to all participants. It consists of the main Robot Car, as well as many extra electronic parts and a few 3D printed parts. Everyone will also receive a half field mat and game pieces.

The Kit of Parts should allow every participant to fully engage in a fun and challenging competition.

Contents:

- Elegoo Smart Robot Car V3.0
- Extra Arduino Parts to be used with Elegoo
  - 1 x ESP-01 WiFi module. Pre-programmed (MANDATORY USE!)
  - 2 x [limit switches](#)
  - 2 x [beam-break sensors](#)
  - 2 x [Rotary encoders](#)
  - 1 x [SG90 Servo](#)
  - 1 x [Continuous Rotation Servo](#)
  - 1 x [HC-SR04 ultrasonic distance sensor](#)
  - ~20 x female to female Dupont cables
  - 2 x [Encoder wheels](#)
  - 1 x [IO Expansion board](#)
- 2021 WWFIRST Competition Game
  - 1 x 3ft by 6ft half game mat
  - 13 x game pieces (cups)
- 3D Printed parts (some parts have no firm date yet)
  - ESP-01 case (confirmed)
  - IR Speed sensor holder (confirmed)
  - Motor spacer (confirmed)