

Open-Source Vacuum Robot

(Vac-Duino)

Christopher Shellman

Complete Bill of Materials

This list contains all the parts required to construct the *Open-Source Vacuum Robot*. This list contains only hardware parts. All frame parts must be made via additive manufacturing. The 3D models can be found here:

<https://www.thingiverse.com/thing:2244952>

Beta version 1.0 required hardware parts:

- 80 -- short $\frac{1}{4}$ " wood screws
 - For chassis
- 1 -- A2212 Brushless Motor
 - For impeller operation to produce the vacuum.
- 2 -- MG995 servos
 - For drive motors (will need to be hacked for continuous rotation)
- 1 -- Brushless Motor ESC
 - To control brushless impeller motor
- 6 -- M3x25mm machine screws & nuts & washers
 - For brush barrel

- 6 -- Ultrasonic distance sensors
 - For data collection
- 2 -- 623ZZ 3x10x4mm ball bearings
 - For brush barrel
- 1 -- Arduino Pro Micro
 - For brains
- Wires & Connectors
- Perseverance