

# What do you need to build this unit?

You will need to do and get the following:

- some electronic components to build your bluetooth board with buttons.
- A 3D printer to print the controller and housing.
- Soldering and electronic assembly with wires.
- Upload code onto your board using the Arduino IDE.
- Common sense...lol.. No seriously, you will need to think practically.

## Components List

For this project you will need the following components:

#	Component	Qty	Online link of product and example
1	Adafruit 32u4 Bluefruit Board	1	<a href="https://www.robotics.org.za/AF2829">https://www.robotics.org.za/AF2829</a>
2	Mini Switch 12mm Waterproof	6	<a href="https://www.robotics.org.za/PBS-33B">https://www.robotics.org.za/PBS-33B</a>
3	Rocker Switch	2	<a href="https://www.robotics.org.za/KCD11">https://www.robotics.org.za/KCD11</a>
4	Toggle switch - center return	1	<a href="https://www.communica.co.za/products/m2019ss1w01">https://www.communica.co.za/products/m2019ss1w01</a>
5	UTP Cable	1	Any 8 core UTP cable to use between your switches and your bluetooth box
6	Wires	1	Additional wire to connect between switches and common joints
7	2 Colour LED	1	<a href="https://www.robotics.org.za/RG5-10">https://www.robotics.org.za/RG5-10</a>
8	M2 Screws	10	Miniature screws to attached lids
9	1000mA battery (FOR OPTION 1 DESIGN)	1	<a href="https://www.robotics.org.za/DTP603450?search=1000ma">https://www.robotics.org.za/DTP603450?search=1000ma</a> Battery to use for power if not permanently powered
10	5v Step down regulator (For OPTION 2 design)	1	<a href="https://www.robotics.org.za/3792">https://www.robotics.org.za/3792</a> Used for permanent power on your unit to use your vehicle's 12v perm source.
11	Micro USB Charging Cable (For OPTION 2 design)	1	To be used for the regulator and cut up for perm power OPTION 2