


MDP Component List – Jan 2024

<div>1.</div> <div>Robot car</div> <div>Qty: 1 unit</div> <div></div> <div>Mounted with the following items</div> <div><ul style="list-style-type: none">• Hall Encoder Motors, 12V 1:30 reduction ratio with 2.54mm pitch, 6 pins- 2 units, Model: MG513P3012V• Motor cables – 2pcs mounted• Servo motor 4.8 - 7.4V with rods, Model: HWZ020• Top acrylic black plate - with 18M3 and 4 M2 holes• Bottom aluminium plate• Battery pack - 11.5V, 3250mAH</div>	<div>2.</div> <div>Resistor – 1Kohm,¼ watt</div> <div>Qty: 1 pc</div> <div></div>
	<div>3.</div> <div>Resistor –2.2Kohm, ¼ watt</div> <div>Qty: 1 pc</div> <div></div>
	<div>4.</div> <div>ADC Cable</div> <div>Qty: 1 pc</div> <div></div>

1a. Battery pack, 11.5V 3250mAH mounted on the car

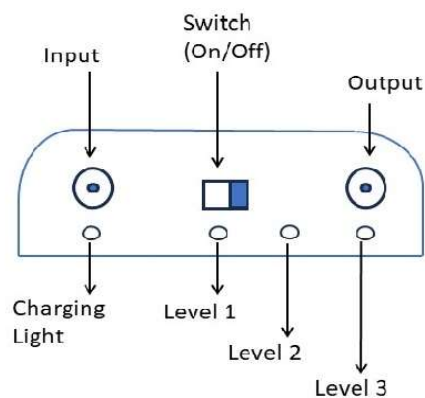


The battery pack contains 3 units of NCR186050B, 3.6V, 3250mAh

1b. Right angle DC cable with Red/Black leads (connect to the Output port of the battery pack)



Battery Pack



Power to STM32 board

- a) Connect Bat Pack Output to STM32 board
- b) Turn on Battery Pack Switch

Charge Battery Pack

- a) Connect 3pin charger to Battery Pack Input
- b) Turn On Battery Pack Switch
- c) Ensure the "Red" Charging Light is on during charging
It will disappear after fully charged
- d) Once Battery Pack is fully charged, the 3-pin charger must turn green.

5.
Tablet, Samsung Tab 7 Lite
Model: SM-T220/Grey

Box: _____

S/n : _____

- (Original) USB A to type C cable
- (Original) 3-pin USB Power Adaptor
- Box

Qty: 1 set



6.
STM32F407vet6
controller Board
mounted on an acrylic
protector **with 4 stands**

Qty:1 set



6a. Top Acrylic
transparent cover
to be mounted above
Stm32F407vet6 board

Qty:1 pc



7.
Battery charger Li-ion with 3pin SG
safety mark **2A**

Qty: 1 pc



8.
Rpi4b Model B – 4Gb



Qty: 1 pc

9.
USB cable type C-C -0.5m





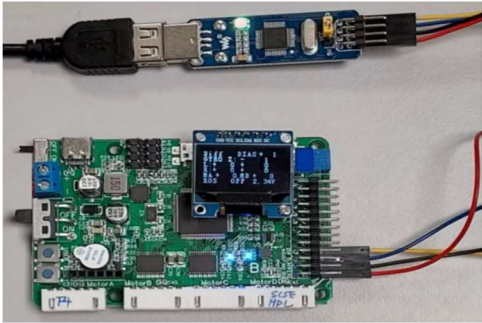
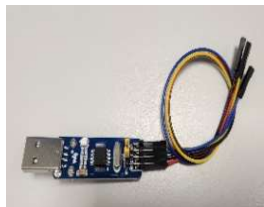







Qty: 1 pc



10.
Power supply adaptor
5.1V 3A 3pin type C
(for Rpi4b)

Qty: 1 set



11. HDMI to micro HDMI cable Qty: 1 pc		12. Sharp GP2Y0A21YK IR Sensor, small, SEN-00020 Qty: 2 pcs	
13. Sensor IR cable Qty: 2 pcs		14. - IR bracket (Orange) Qty: 3 pcs - Bracket (Aluminium) Qty: 1 pc	
Connection for ST-LINK/V2 Serial Wire Debug (SWD) board to STM32F407vet6  <div>Red – 3.3V Black – SWCLK Blue – GND Yellow - SWDIO</div>		15. <ul style="list-style-type: none">▪ ST-LINK/V2, Debuggers, USB2.0 – 1 pc▪ 4-pin header cable (Red/Blk/Blue/Yellow) - 1pc▪ Male USB A to Female USB A USB Extension Cable, USB 2.0, 1.50m - 1pc	 
16. Ultrasonic Sensor, HCSR04SEN0001 Qty: 1 pc			
17. MicroSD memory card, 32GB Qty: 1 set		18. RPi Camera Module V2 with Flexi cable Qty: 1 pc	
19. <ul style="list-style-type: none">• Cable USB A to micro B, 0.5m Qty: 1 pc <ul style="list-style-type: none">• Cable USB A to micro B, 1.8m Qty: 2 pcs		20. Ribbon cable F/F Qty: 10 pcs	

<p>21. Network cable, 2m</p> <p>Qty: 1 pc</p>		<p>22. Tool Bag</p> <ul style="list-style-type: none"> - Wire stripper cum cutter - screwdriver (-) - screwdriver (+) - Long nose plier <p>Qty: 1 set</p>	
<p>23.</p> <ul style="list-style-type: none"> • M2 pillars 10mm M/F, Qty: 20 pcs • M2 screws, 6mm, Qty: 6pcs • M2 nuts, Qty: 6pcs <p>For Rpi mounting</p>		<p>24.</p> <ul style="list-style-type: none"> • M3 Pillars 25mm F/F Qty: 2 pcs • M3 screws, 6mm, Qty: 4pcs • M3 nuts, Qty: 4pcs <p>For IR camera mounting etc</p>	
<p>25. Obstacle, Small 100X100X150mmh Matt black</p> <p>Qty: 1 pc</p>		<p>26. Card Reader (USB)- Transcend RDF5</p> <p>Qty: 1 set</p>	
<p>27. Handy storage box with cover</p> <ul style="list-style-type: none"> • Dimension: L44 X W30.5 X H22 cm <p>Qty: 1 pc</p>		<p>28. Photo images</p> <p>Qty: 1 set of 35 images</p>	
<p>29. Digital Multimeter Model: UT33A+</p> <p>Box: _____</p> <p>S/n : _____</p> <ul style="list-style-type: none"> • (Original) Red and Black probes • Box <p>Qty: 1 set</p>			

<u>Suppliers for the components:-</u> <u>Singapore Robotic</u> <i>(sensors, motor, IR bracket)</i> Phone: +65-6570 1125, Fax: +65-6462 2051 sales@sgbotic.com	<u>Robot R Us</u> <i>(sensors, motor, IR bracket)</i> sales@robot-r-us.com +65 96569488
<u>Challenger Technologies Limited</u> <i>(SDcard reader)</i> Tel: 6318 9800, Fax: 63189801	<u>Element14 (Singapore)</u> <i>(Raspberry Pi, Sensors, USB cables, HDMI cables)</i> Phone: +65 6788 0200 , Fax: +65 6788 0300 Email: sg-sales@element14.com
<u>RS Components Singapore Pte Ltd</u> RPi4b, RPi Camera module V2 Phone: +65 6865 3400 Fax: +65 6865 3444	<u>BESCOM COMPUTER SYSTEMS PTE LTD</u> <i>(SDcard reader)</i> Tel: 62720808, Fax: 62720909
<u>Measurement & Metrology (S) Pte Ltd</u> <i>(Digital Multimeter)</i> Tel: 64831691, www.mnm.com.sg	<u>Unicell International Pte Ltd</u> <i>(Battery)</i> Tel: 6742 6330, 6742 6631 Fax: 6742-7763
<u>Silicon Electronics Company</u> (tools, cables) 10 Jalan Besar #03-02 Sim Lim Tower Tel: 62969006 Fax 2969005	<u>Dream Catcher Technologies Private Limited</u> Tel: +65-62981892 (Nano car parts)
<u>TOYOGO SUPERMART (Storage box)</u> 21 Lor 8 Toa Payoh, Toyogo Bld SG 319256 Singapore Phone: +65 62518747	<u>Measurement & Metrology (S) Pte Ltd</u> Digital Multimeter model: UT33A+