

Invitation to Tender Letter
(Suppliers should be reminded not to identify their companies on the envelopes)

School Ref. No. 2020-21/RBO001

Date : 14th April, 2021

Dear Sirs,

INVITATION TO TENDER
TENDER FOR THE SUPPLY OF
ROBOTIC CAR

You are invited to tender for the supply of the stores or services as specified in the enclosed tender schedule.

Your sealed tender, **in duplicate**, should be clearly marked on the envelope:

Tender for “ ROBOTIC CAR “

A tender will be disqualified if the bidder discloses its identity on the sealed tender envelope. The envelope should be addressed to **The Principal, The IMC of Shatin Tsung Tsin Secondary School, 1 Mei Tin Road, Tai Wai, Shatin, New Territories** and arrive not later than 12:00 noon on 6th May, 2021. In case a black rainstorm warning signal or typhoon signal No. 8 or above is valid for any duration between 9:00 a.m. and 12:00 noon, the closing time will be extended to 12:00 noon on the next weekday (i.e. except Saturday, Sunday and public holiday). Late tenders will not be accepted. Your tender will remain open for 90 days from the “Closing Date”, and you may consider your tender to be unsuccessful if no order is placed with you within these 90 days. You are requested to note that unless Part II of the tender form is completed, the tender will not be considered.

You are reminded that the bidder, its employees and agents shall not offer any advantage (as defined in the Prevention of Bribery Ordinance, Cap. 201) to the school employees, IMC members, or any parent or student representative in a committee responsible for considering any matters in relation to this contract. Any such offer by the bidder or its employees or agent may constitute an offence under the Prevention of Bribery Ordinance and may render the contract null and void. The school may also cancel the contract awarded and hold the bidder liable for any loss or damage the school may sustain.

The contractor shall not sub-contract, assign or otherwise transfer or dispose of the contract or any part thereof or any rights and obligations without the prior written consent of the Incorporated Management Committee of Shatin Tsung Tsin Secondary School. The contractor shall not, without the prior written consent of the aforementioned Incorporated Management Committee, enter into any sub-contract with any person for the performance of any part of the

contract. If the contractor considers it necessary to sub-contract the work/services, the contractor shall submit the proposed sub-contract to the aforementioned Incorporated Management Committee for approval. The aforementioned Incorporated Management Committee reserves the right to grant permission for sub-contracting and determine the terms and conditions of the sub-contract. The contractor shall remain fully liable and shall not be relieved from any of its relevant obligations by entering into any sub-contract for the performance of any part of the contract and the contractor shall be responsible for the acts, defaults or neglect of any sub-contractor, its employees and agents.

For tenders and purchases involving wages, the bidder must comply with the requirements of the Statutory Minimum Wage.

Failure to comply with any of the above requirements in this letter and the enclosed documents will render a tender invalid and the tender will not be further considered.

If you are unable or do not wish to tender, it would be appreciated if you return the tender form with reason to the above address or by fax (2604 7350) or by email to info@sttss.edu.hk at your earliest convenience.

Tenders will be accepted on an overall basis.

Yours sincerely,

Ms. Leung Kit Yin
The Principal

**TENDER FORM FOR THE SUPPLY OF
ROBOTIC CAR**

Name and Address of School : **The IMC of Shatin Tsung Tsin Secondary School,
1 Mei Tin Road, Tai Wai, Shatin, New Territories.**

School Ref. No. : **2020-21/RBO001**

Tender Closing Date and Time : **6th May, 2021 12:00 noon**

PART I

The undersigned hereby offers to supply all or any part of the items described in the tender schedule attached with delivery term quoted therein against the date of a firm order placed by the school at the price or the prices quoted in the tender schedule free of all other charges and in accordance with any drawings and/or specifications provided by the school. In so doing, the undersigned acknowledges that all items not otherwise specified shall be in accordance with British Standard specifications where such exist; tenders shall **REMAIN OPEN FOR 90 DAYS** after the Closing Date; and the school is not bound to accept the lowest or any tender and reserves the right to accept all or any part of any tender within the period during which the tender remains open. The undersigned also warrants that his/her Company's Business Registration and Employee's Compensation Insurance Policy are currently in force and that the items which his/her Company offers to supply do not to his/her knowledge infringe any patents.

PART II

RECONFIRMATION OF TENDER VALIDITY

With reference to Part I of this tender document, it is reconfirmed that the validity of tender offered by this company remains open for 90 days from 6th May, 2021.

The undersigned also agrees to accept the fact that once the validity of tender is reconfirmed, the pre-printed clause specified in the Company's tender forms in regard to this nature shall NOT apply.

Date this _____ day of _____ .

Name (in block letters) : _____

Signature _____ in the capacity of _____
(state official position e.g. Director, Manager, Secretary)

Duly authorized to sign tenders for and on behalf of :

whose registered office is situated at _____

_____ Hong Kong.

Telephone No. _____

Fax No. _____

THE IMC OF SHATIN TSUNG TSIN SECONDARY SCHOOL
2020-2021 TENDER SCHEDULE

(Column 4,5 & 6 to be completed by Supplier)

(1) Item No.	(2) Description/Specification	(3) Quantity Required	(4) Unit Rate (\$)	(5) Total Amount (\$)	(6) Delivery Offered
1.	<u>Robotic car</u> <u>Specification:</u> <ol style="list-style-type: none"> 1. Robot body <ul style="list-style-type: none"> - Weight Approx 3.3KG - Dimensions 320x240x270mm(Length x width x height) - Chassis Speed Range 0-3.5m/s (forward) 0-2.5m/s (backward) 0-2.8m/s (sideways) - Max Chassis Rotational Speed 600 degree/second 2. Infrared Distance Sensor <ul style="list-style-type: none"> - Detection Range: 0.1-10m - FOV 20 degree - Accuracy: +/- 5% 3. Robotic Arm <ul style="list-style-type: none"> - Movement Range Horizontal: 22cm, Vertical: 15cm - Number of Axes 2 4. Gripper <ul style="list-style-type: none"> - Range Approx 10cm 	8			

5. Servo

- Weight Approx 70g
- Body Dimensions 44.2x22.6x28.6mm
- Transmission Ratio 512:1
- Operation Modes Angle mode, Speed mode

6. Sensor Adaptor

- Port Type IO, AD
- Number of Ports 2

7. Power Connector Module

- Communication Port CAN bus (5)
- Output USB TypeA power port: 5V 2A
- Power port with pin header: 5V 4ATX30
- Power port: 12V 5A Input TX30

8. Camera

- FOV 120 degree
- Max still photo resolution 2560x1440
- Max Video resolution FHD: 1080/30fps HD: 720/30fps
- Max Video Bitrate 16Mbps
- Photo Format JPEG
- Video Format MP4
- Sensor CMOS ¼
- Effective picels: 5MP

	<ul style="list-style-type: none"> - Operating Temperature Range -10 to 40 °C <p>9. Narrow Infrared Units</p> <ul style="list-style-type: none"> - Effective range [2] 6m (indoor lighting conditions) - Effective Area Varies from 10 to 40 degree - Effective range decreases as distance from the target increases. <p>10. Wide Infrared Units</p> <ul style="list-style-type: none"> - Effective Range [2] 3m (indoor lighting conditions) - Effective Width 360 degree (indoor lighting conditions) 																								
2.	<p><u>Backup Battery for robotic car</u></p> <p><u>Specification</u></p> <ul style="list-style-type: none"> - High energy Li-ion battery - Up to 35 minutes of battery life - Multiple battery protection functions 	16																							
3.	<p><u>Gel beads for robotic car</u></p>	4																							
4.	<p><u>Youth Tournament Site for robotic competition</u></p> <p><u>Specification</u></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 70%;">Materials</th> <th style="width: 30%;">Quantity</th> </tr> </thead> <tbody> <tr> <td>Ground Pad</td> <td>20</td> </tr> <tr> <td>Guardrail (1000mm)</td> <td>11</td> </tr> <tr> <td>Guardrail (924mm)</td> <td>3</td> </tr> <tr> <td>Base Mount</td> <td>1</td> </tr> <tr> <td>Landing Pad</td> <td>1</td> </tr> <tr> <td>Road</td> <td>6</td> </tr> <tr> <td>Resource Island</td> <td>1</td> </tr> <tr> <td>L-Shaped Terrain</td> <td>1</td> </tr> <tr> <td>High Wall</td> <td>1</td> </tr> </tbody> </table>	Materials	Quantity	Ground Pad	20	Guardrail (1000mm)	11	Guardrail (924mm)	3	Base Mount	1	Landing Pad	1	Road	6	Resource Island	1	L-Shaped Terrain	1	High Wall	1	1			
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	Aerial Robot Recognition Card Set	1																										
	Base	1																										
	Site Sticker	1																										
5.	<u>Youth Tournament courses (robotics)</u> <u>Specification</u> <ul style="list-style-type: none"> - Eligibility for RoboMaster Youth Tournament 2021 - 1 Experiential Learning Session for around 32 students - 10 lessons (12.5 hours total) focus on RoboMaster Youth Tournament 2021 for 16 students <p>The content of the course as below:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">lesson</th> <th>Content</th> </tr> </thead> <tbody> <tr><td>1</td><td>Description of coding logic</td></tr> <tr><td>2</td><td>Artificial intelligence data reading and understanding</td></tr> <tr><td>3</td><td>PID control and analysis</td></tr> <tr><td>4</td><td>TOF and deep infrared sensing applications</td></tr> <tr><td>5</td><td>The installation and test of robotic arm</td></tr> <tr><td>6</td><td>Applications of robotic arm</td></tr> <tr><td>7</td><td>AI smart car line-based tasks</td></tr> <tr><td>8</td><td>Automatic tracking labels</td></tr> <tr><td>9</td><td>Resource Island ammunition clamping Mission</td></tr> <tr><td>10</td><td>Battle training</td></tr> </tbody> </table>		lesson	Content	1	Description of coding logic	2	Artificial intelligence data reading and understanding	3	PID control and analysis	4	TOF and deep infrared sensing applications	5	The installation and test of robotic arm	6	Applications of robotic arm	7	AI smart car line-based tasks	8	Automatic tracking labels	9	Resource Island ammunition clamping Mission	10	Battle training	1			
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We / I understand that if we / I fail to supply the stores or services as offered in our / my tender upon accepting school's order, we are / I am prepared to pay the price difference to the school if such stores or services are obtained from elsewhere.

Company Chop

Name of Supplier : _____

Name and Signature of Person authorized to sign Tender :

Name (in block letters) : _____ Signature : _____

Date : _____