



ASTI-FM 03-10
REV 3/13 January 2020

**DOST-ASTI Bids and Awards Committee
REQUEST FOR QUOTATION**

Kind of Procurement Activity:	Negotiated Procurement: Small-value Procurement		
Deadline of Submission of Bids:	Oct-16-2020, 2:00 PM		
RFQ No.:	20-10-3248	Date:	October-12-2020
PR No.:	GAA-20-09-10304	Date:	September-09-2020

The Department of Science and Technology (DOST) - Advanced Science and Technology Institute (ASTI), through its Bids and Awards Committee (BAC), intends to procure the item/s listed below. As such, suppliers, contractors, or distributors are invited to submit their quotation/s duly signed by authorized representative. Prospective bidder/s who will submit a proposal with the single/lowest calculated and responsive quotation shall be selected. Guidelines on the format and eligibility documents are listed at the box below the item/s to be procured.

Quotations may be sent via **a)** electronic mail at bac-sec@asti.dost.gov.ph, **b)** fax message, or **c)** delivering documents to the BAC Secretariat. For further inquiries, you may contact +63 2 249-8500 local 1206/1212 or +63 2 426-7423.

Thank you.

Respectfully,

REYNALDO JOSEPH A. CALLAO JR.
BAC Chairman

NO.	TECHNICAL SPECIFICATIONS	QTY	UNIT	UNIT PRICE(Php)	TOTAL PRICE(Php)
1	Flight Controller - Advanced - Genuine/Authentic Product - Flight Controller & M8N GPS Combo - Aluminum Case - Dimensions: 44x84x12mm - Weight: 15.8g - Main FMU Processor: STM32F765 (32 Bit Arm@Cortex@-M7, 216MHz, 2MB memory, 512KB RAM) - IO Processor: STM32F100 (32 Bit Arm@ Cortex@-M3, 24MHz, 8KB SRAM) - Accel/Gyro: ICM-20689 - Accel/Gyro: BMI055 - Mag: IST8310 - Barometer: MS5611 - GPS: M8N GPS/GLONASS receiver; integrated magnetometer IST8310 - Power Module Output: 4.9~5.5V - Max Input Voltage: 6V - Max Current Sensing: 120A - USB Power Input: 4.75~5.25V - Servo Rail Input: 0~36V - Interfaces ●8-16 PWM servo outputs (8 from IO, 8 from FMU)	2	pc	17500.00	35,000.00

- 3 dedicated PWM/Capture inputs on FMU
- Dedicated R/C input for CPPM
- Dedicated R/C input for Spektrum / DSM and S.Bus with analog / PWM RSSI input
- Dedicated S.Bus servo output
- 5 general purpose serial ports
 - 2 with full flow control
 - 1 with separate 1.5A current limit
- 3 I2C ports
- 4 SPI buses
 - 1 internal high speed SPI sensor bus with 4 chip selects and 6 DRDYs
 - 1 internal low noise SPI bus dedicated for Barometer with 2 chip selects, no DRDYs
- 1 internal SPI bus dedicated for FRAM
- Supports dedicated SPI calibration EEPROM located on sensor module
- 1 external SPI buses
- Up to 2 CANBuses for dual CAN with serial ESC
 - Each CANBus has individual silent controls or ESC RX-MUX control
- Analog inputs for voltage / current of 2 batteries
- 2 additional analog inputs
 - Operating temp. ~40~85C
 - Storage temp. -40~85C
 - A new and small form factor
 - More computing power and 2X the RAM than previous versions
 - New sensors with higher temperature stability
 - Integrated vibrations isolation
 - Increased ease-of-use: pre-installed with most recent PX4 (v1.7)
 - Additional ports for better integration and expansion
- Package Included:
 - + 1x Pixhawk 4 Flight Controller
 - + 1x GPS Module
 - + 1x Power Management Board
 - + 1x I2C splitter Board
 - + 3x 6 to 6 pin cable (power)
 - + 2x 4 to 4 pin cable (CAN)
 - + 1x 6 to 4 pin cable (Data)
 - + 2x 10 to 10 pin cable (PWM)
 - + 1x 8 to 8 pin cable(AUX)
 - + 1x PPM/SBUS out cable
 - + 1x XSR receiver cable
 - + 1x DSMX receiver cable
 - + 1x SBUS receiver cable
 - + 1x USB cable *1
 - + 1x 'X'type folding pedestal mount
 - + 2x 70mm & 140mm carbon rod stand off
 - + 1x 6*3 2.54mm pitch Horizontal Pin
 - + 1x 8*3 2.54mm pitch Horizontal Pin
 - + 1x Foam Set
 - Inclusive of taxes, delivery, etc.
 - Delivery date: 30 days upon issuance of NTP

2	Flight Controller - F7 - F722-STD Flight Controller - 36x36mm PCB with 30.5mm mounting holes - Weight: 7g - MCU: 216MHz STM32F722RET6 - IMU: 32K ICM20602 gyro/accelerometer (SPI) - Baro: BMP280 (I2C) - OSD: BetaFlight OSD w/ AT7456E chip - Blackbox: MicroSD card slot (SD/SDHC) - VCP, UART1, UART2, UART3, UART4, UART5 - PPM/UART Shared: UART2-RX - Battery Voltage Sensor: 1:10 - Current Sensor: No (FCHUB-6S, FCHUB-VTX option) - BEC 5V: No (FCHUB-6S, FCHUB-VTX option) - LDO 3.3V: Max.300mA - I2C1 SDA & SCL: Yes - Camera control: Yes - DAC: Yes - WS2812 Led Strip : Yes - Beeper : Yes - RSSI: Yes - Features: + 3x LEDs for FC STATUS (Blue, Red) and 3.3V indicator(Red) + 7x PWM / DShot outputs without conflict + 5x UARTs + 1x Group of G/S1/S2/S3/S4 pads for 4in1 ESC Signal/GND + 1x I2C1 + 4x pairs of corner pads for ESC Signal/GND connections (DSHOT compatible) + 1x Side-press button for BOOT(DFU) mode + 1x 16pin bottom mounted FFC Slot for FCHUB-6S or FCHUB-VTX connection - Package included: + 1x F722-STD flight controller + 2x 0.5mm*16Pin 5cm Flexible Flat Cable + 4x M3 Anti-vibration Standoffs - Inclusive of taxes, delivery, etc. - Delivery date: 30 days upon issuance of NTP	3	pc	5000.00	15,000.00
3	UVC Bulb - 58W - 58W UV-C Non-Ozone Multipurpose Germicidal Sterilizer - Hospital or Medical grade UV-C Non-Ozone Germicidal Sterilizer - 36 seconds start delay - Covers big areas 60 square meters - Made of Aluminum Steel Frame - 254 nm UVC Medical Grade Bulb - Wattage: 58 Watts - Bulb 10,000 hours - Area coverage: 60 square meters - Voltage: 110V-220V 50Hz/60Hz - Material: Aluminum Frame (non oxidizing) - Dimension of lamp: Height: 22 inches, Base diameter: 7.25 inches - Inclusive of taxes, delivery, etc. - Delivery date: 30 days upon issuance of NTP	2	pc	6000.00	12,000.00
4	UVC Bulb - 60W	2	pc	10000.00	20,000.00

	<ul style="list-style-type: none"> - Hospital or medical grade UV-C Non-Ozone Germicidal Sterilizer eliminates 99.9% of airborne viruses, bacteria, molds, mites and their eggs - 10 seconds start delay so operator can leave the exposed area - Easy 15 / 30 / 60 minutes timer mode - Long lasting 10,000 hours replaceable bulb - Rubberized top frame to protect the bulb - Includes a remote control - Made of High Quality Material and built to last - 254 nm UVC Medical Grade Bulb - Wattage: 60 Watts - Bulb 10,000 hours - Area coverage: 75 square meters - Voltage: 220V 50Hz/60Hz - Material: Nano Steel Frame (non oxidizing) - Dimension of lamp: Height: 22 inches, Base diameter: 7.25 inches - Inclusive of taxes, delivery, etc. - Delivery date: 30 days upon issuance of NTP 				
5	<p>M2.5 Male-Female Brass Standoff / Stainless Steel Screw Nut Assortment Kit</p> <ul style="list-style-type: none"> - Material: Copper - Standoff: M2.5*6, M2.5*10, M2.5*12, M2.5*15, M2.5*6+6, M2.5*10+6, M2.5*12+6, M2.5*15+6 - Screw: M2.5* - Hex nut: M2.5 - Package List: <ul style="list-style-type: none"> + 80 * Standoff(Each type * 10, 8*10) + 50 * Nut + 50 * Screw - Inclusive of taxes, delivery, etc. - Delivery date: 30 days upon issuance of NTP 	5	set	400.00	2,000.00
6	<p>M3 Male-Female Brass Standoff / Stainless Steel Screw Nut Assortment Kit</p> <ul style="list-style-type: none"> - 200 pcs per set - Screw Type: Spacing Screws - Color: silver - Material: copper nickel plating - Case included - Package Contents: <ul style="list-style-type: none"> + 10* M3 6+6 mm Stud + 10* 8+6 mm Stud + 10* 10+6 mm Stud + 10* 12+6 mm Stud + 10* 6 mm Stud + 10* 8 mm Stud + 10* 10 mm Stud + 10* 12 mm Stud + 60* M3 nut + 60* M3 screw - Inclusive of taxes, delivery, etc. - Delivery date: 30 days upon issuance of NTP 	5	set	400.00	2,000.00
7	<p>Battery - 18650</p> <ul style="list-style-type: none"> - Voltage: 3.7 V - Current Rating: 3000 mAh - Charging environment temperature range: 32° to 113° F 	10	pc	300.00	3,000.00

	<ul style="list-style-type: none"> - In use temperature range: -4° to 140° F - Size: 0.73" - Diameter x 2.56" H - Weight: 0.1 lbs. - Inclusive of taxes, delivery, etc. - Delivery date: 30 days upon issuance of NTP 				
8	Battery Holder - 18650 <ul style="list-style-type: none"> - Compatible Batteries: 18650 Batteries - Cell Connection Configuration: Series or Parallel - Dimensions: 78x20x24mm - Weight: 8g - Inclusive of taxes, delivery, etc. - Delivery date: 30 days upon issuance of NTP 	10	pc	50.00	500.00
9	Terminal/Bullet Connectors Kit <ul style="list-style-type: none"> - Diameter: 3.5mm - 3.5mm Male Gold Connectors x 1 - 3.5mm Female Gold Connectors x 1 - Package Contents: 10 pair 3.5mm Golden Bullet Connector - Inclusive of taxes, delivery, etc. - Delivery date: 30 days upon issuance of NTP 	3	pack	300.00	900.00
10	XT60 Connector - 10 pairs <ul style="list-style-type: none"> - 10 pairs per pack - Half open end, easier for welding - Gold-plated brass provides lower resistance - 60A max current which ensures care-free flight - High fire resistance level features more safety - Compact design which is tight and stable when plugged - With protective end caps - Item type: XT60H - Max current: 60A - Working current: 30A - Durability: 1000 times - Contact resistance: 0.50mΩ - Rated voltage: DC 500V - Fire resistance level: UL94 V0 - Suitable for: Racing quadcopter and other RC models - Metal material: Gold plated brass - Cable SPEC: 12AWG - Plastic Material: PA - Color: Yellow Plug and Grey Caps - Temperature: -20°C to 120°C - Quantity: 10 pairs (10 male connector + 10 female connector) - Inclusive of taxes, delivery, etc. - Delivery date: 30 days upon issuance of NTP 	10	pack	600.00	6,000.00
11	ADC Module - 4 Channel <ul style="list-style-type: none"> - 16-Bit 4 Channel ADS1115 with Programmable Gain Amplifier - power from 2.0V to 5.5V - low current consumption at only 150µA - auto shutdown function - programmable data rate from 8SPS(Samples per second) to 860 SPS - I2C protocol - Inclusive of taxes, delivery, etc. 	5	pc	300.00	1,500.00

	- Delivery date: 30 days upon issuance of NTP				
12	ADC Module - 4 Channel, Configurable I2C Address - Support 3.3~5.0V Wide Supply Voltage - 3.3V I2C digital level signal, optimized for Raspberry Pi - Gravity I2C Interface, plug and play - On-board I2C address selection switch, supports cascade of two ADC modules - Color coded 3pin headers, plug and play with Gravity analog sensors - Supply Voltage (VCC): 3.3~5.0V - Analog Signal Detection Range: 0~VCC - Number of Analog Channels: 4 - ADC Bits: 16 Bit - Operating Current: 2~3mA - Interface Type: Gravity I2C - Interface Level: High 3.3V, Low 0V - Product Size: 32mm * 32mm(1.26in*1.26in) - Package List: + Gravity: I2C ADS1115 16-bit ADC Module x1 + XH2.54-4pin Header x1 + Gravity-4P I2C/ UART Sensor Wire x1 - Inclusive of taxes, delivery, etc. - Delivery date: 30 days upon issuance of NTP	4	pc	700.00	2,800.00
13	DC-DC Buck - Input voltage :4V ~ 35V - The output voltage : 1.23V ~ 30V - Output Current :3A(Max) - Conversion efficiency:92%(MAX) - Output ripple: <30mV - Switching frequency: 150KHz - Working temperature: -forty Five~ +85 - Size :43mm * 21mm * 14mm(Long*Width*Height) - 10 pcs per pack - Inclusive of taxes, delivery, etc. - Delivery date: 30 days upon issuance of NTP	1	pack	700.00	700.00
14	DC-DC Boost - DSN6009-based boost module - Module Properties:Non-isolated boost - Rectification:Non-Synchronous Rectification - Input Range:3V ~ 32V - Output Range:5V ~ 35V - Input Current:4A (max), no-load 18mA (5V input, 8V output, no-load is less than 18mA. Higher the voltage, the greater the load current.) - Conversion efficiency:<94% (greater the pressure, the lower the efficiency) - Switching frequency:400KHz - Output Ripple:50mV (the higher the voltage, the greater the current, the greater the ripple) - Load Regulation:± 0.5% - Voltage Regulation:± 0.5% - Operating Temperature:-40 ° ~ +85 ° - Dimensions:43mm * 21mm * 14mm (L * W * H) - Inclusive of taxes, delivery, etc. - Delivery date: 30 days upon issuance of NTP	5	pc	150.00	750.00
15	Socket Wrench Adaptor Set	2	set	450.00	900.00

	<ul style="list-style-type: none"> - Set of Set 1/2", 3/8", 1/4" Socket Wrench Adapters - Made from heavy duty chrome vanadium steel for durability and long service life - The surface of each adapter is finished by electroplating and blackening, which ensures corrosion resistance - Adapter body is designed with a ball detent and a small hole to keep your sockets still and secure - Inclusive of taxes, delivery, etc. - Delivery date: 30 days upon issuance of NTP 				
16	<p>Hex Adaptor Set</p> <ul style="list-style-type: none"> - Size : 1/4"x65mm, 3/8"x65mm, 1/2"x70mm - Material: 40Cr - Sand blasting finishing - Packing: blister card - Wrench shape: single wrench - Surface treatment: sandblasting - Weight: 75g - Material: Chrome vanadium steel CR-V - Suitable for screwdriver handle or electric screwdriver tool (hexagonal hole or three jaw chuck can be used) drive sleeve, the installation of the hexagonal connector can be converted to square head, which can be used for the installation of the sleeve. - Chrome Vanadium Steel - Suitable for Heavy Duty Impact Drivers - Spring Loaded Ball - Suitable for Quick Change - Allows you to replace your ratchet with a power tool - Hex shank fits all quick change - Package Included: 3 x Hex socket bits - Inclusive of taxes, delivery, etc. - Delivery date: 30 days upon issuance of NTP 	2	set	300.00	600.00

TOTAL APPROVED BUDGET FOR THE CONTRACT:

Php 103,650.00

GUIDELINES

A. Submission of Quotations

1. Quotation/s shall include the Request for Quotation and/or the Purchase Request Number as state above;
2. Pictures or brand/model names or numbers, if applicable, should be specified in the quotation/s; and
3. Quotation/s must be signed by the company's duly authorized representative.

B. Eligibility Requirements

Pursuant to Annex "H" or Consolidated Guidelines for the Alternative Methods of Procurement of the 2016 Implementing Rules and Regulations (IRR) of Republic Act (RA) No. 9184, as amended by Government Procurement Policy Board Resolution No. 21-2017 dated 30 May 2017, the following documents shall be submitted except for Repeat Order, Shopping under Section 52.1(a), and Negotiated Procurement under Sections 53.1 (Two-Failed Biddings), and 53.5 (Agency-to-Agency):

For Procurement of Goods

1. Upon submission of quotation
 - ✓ PhilGEPS Platinum Membership Certificate including Annex "A". If not available, the following alternate documents may be submitted:
 - PhilGEPS Registration Number
 - Mayor's Permit

- For individuals/professionals engaged under Section 53.6, 53.7 and 53.9 of the 2016 IRR of RA No. 9184, only the Bureau of Internal Revenue (BIR) Certificate of Registration shall be submitted in lieu of the Mayor's Permit.

2. Upon issuance of Notice of Award (NOA)

- ✓ Omnibus Sworn Statement
 - Applicable only for bidders who have submitted their quotation on item/s with a total Approved Budget for the Contract (ABC) of above Php50,000.00.
- ✓ Income/Business Tax Return
 - Applicable only for: **a)** bidders who have submitted their quotation on item/s with a total ABC of above Php500,000.00; and **b)** bidders for Lease of Real Property and Venue (except for government agencies as lessors).

For Procurement of Infrastructure

1. The requirements for Goods with the same submission indicated therein; and
2. Valid Philippine Contractors Accreditation Board License.

For Procurement of Consulting Services

1. The requirements for Goods with the same submission indicated therein; and
2. Valid Professional Regulation Commission License or Curriculum Vitae.

NOTE: For new suppliers, submit a BIR Certificate of Registration for accounting purposes.

C. Terms and Conditions

1. Additional requirements, if necessary, may be requested by the BAC depending on the item to be bid;
2. For all kinds of procurement, the bidder who passed the bid evaluation, shall submit a duly notarized Omnibus Sworn Statement upon issuance of NOA, unless otherwise provided;
3. All transactions are subject to creditable withholding tax and final Value Added Tax or percentage tax per revenue regulation/s of the BIR;
4. A penalty of one-tenth of one percent (0.001) of the total value of the undelivered goods/services shall be charged as liquidated damages for every day of delay of the delivery; and
5. The DOST-ASTI reserves the right to accept or reject any proposal, to annul the bidding process, and to reject all proposals at any time prior to contract award, without thereby incurring any liability to the affected proponent or proponents.