

Naručilac UNIVERZITET CRNE GORE - ELEKTROTEHNIČKI FAKULTET  
PODOGRICA

Broj 02/11-1339

Datum 28.08.2019

Na osnovu člana 30 Zakona o javnim nabavkama („Službeni list CG“, br. 42/11, 57/14, 28/15 i 42/17 ) i Pravilnika o sadržaju akta i obrascima za sprovođenje nabavki male vrijednosti („Službeni list CG“, br. 42/11, 57/14, 28/15, 42/17 i 49/17) , UNIVERZITET CRNE GORE - ELEKTROTEHNIČKI FAKULTET PODOGRICA dostavlja

**ZAHTJEV ZA DOSTAVLJANJE PONUDA  
ZA NABAVKE MALE VRIJEDNOSTI**

**I Podaci o naručiocu**

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**II Predmet nabavke:**

- robe  
 usluge  
 radovi

**III Opis predmeta nabavke:**

Laboratorijski inventar do 300 eura po kom.za potrebe Elektrotehničkog fakulteta  
33140000-3 Medicinski potrošni materijal  
33696500-0 Laboratorijski reagensi  
33130000-0 Stomatološki i subspecijalistički instrumenti i uredaji

**IV Procijenjena vrijednost nabavke:**

Procijenjena vrijednost nabavke sa uračunatim PDV-om je 5000,00 €;

## V Tehničke karakteristike ili specifikacije

R.B.	Opis predmeta javne nabavke, odnosno dijela predmeta javne nabavke	Bitne karakteristike predmeta nabavke u pogledu kvaliteta, performansi i/ili dimenzija	Jedinica mjere	Količina
1.	Fingerprint sensor	<p>Supply voltage: 3.6 - 6.0VDC            Operating current: 120mA max            Peak current: 150mA max            Fingerprint imaging time: &lt;1.0 seconds            Window area: 14mm x 18mm            Signature file: 256 bytes            Template file: 512 bytes            Storage capacity: 150 templates or more            Safety ratings (1-5 low to high safety)            False Acceptance Rate: &lt;0.001% (Security level 3)            False Reject Rate: &lt;1.0% (Security level 3)            Interface: TTL Serial            Baud rate: 9600, 19200, 28800, 38400, 57600 (default is 57600)            Working temperature rating: -20C to +50C            Working humidity: 40%-85% RH            Compatible with Arduino Uno</p>	komad	10
2.	13.56mhz hf 14443a rfid keyfob ic card rewritable readable tag keychaine - lot 100 pieces	<p>Chip Type: Mifare S50            Frequency: 13.56MHz            Function: Read and Write            Protocol: ISO/IEC 14443 A            Keyfob Color: Defaul Blue            Color Optional:            Red/Yellow/Green/Black/White/Grey etc            Size: 40*32*4mm</p>	komad	1
3.	Serial WIFI Wireless Module Wireless Transceiver for Arduino	<p>802.11 b/g/n            Wi-Fi Direct (P2P), soft-AP            Integrated TCP/IP protocol stack            Integrated TR switch, balun, LNA, power amplifier and matching network            Integrated PLLs, regulators, DCXO and power management units            +19.5dBm output power in 802.11b mode            Power down leakage current of &lt;10uA            1MB Flash Memory            Integrated low power 32-bit CPU could be used as application processor            SDIO 1.1 / 2.0, SPI, UART            STBC, 1x1 MIMO, 2x1 MIMO            Wake up and transmit packets in &lt; 2ms            Standby power consumption of &lt; 1.0mW</p>	komad	20

		(DTIM3)		
4.	GPRS/GSM Shield Board for Arduino	<p>Quad-Band 850 / 900/ 1800 / 1900 MHz - would work on GSM networks in all countries across the world.</p> <p>GPRS multi-slot class 10/8 GPRS mobile station class B Compliant to GSM phase 2/2+ Class 4 (2 W @ 850 / 900 MHz) Class 1 (1 W @ 1800 / 1900MHz) Control via AT commands - Standard Commands: GSM 07.07 &amp; 07.05   Enhanced Commands: SIMCOM AT Commands.</p> <p>Short Message Service - so that you can send small amounts of data over the network (ASCII or raw hexadecimal). Embedded TCP/UDP stack - allows you to upload data to a web server. RTC supported. Selectable serial port. Speaker and Headphone jacks Low power consumption - 1.5mA(sleep mode) Industrial Temperature Range - -40°C to +85 °C</p>	komad	9
5.	Single-board computer	<p>Processor: Broadcom BCM2837B0, Cortex-A5364/bit SoC, 1.4GHz or similar Memory: 1GB LPDDR2 SDRAM WiFi:2.4GHz and 5GHz IEEE 802.11.b/g/n/ac wireless LAN Bluetooth: 4.2, BLE Ethernet: 300Mps USB: min 4 2.0 ports Input-Output: min 40-pin GPIO header Video &amp; Sound: 1 x full size HDMI, MIPI DSI display port, MIPI CSI camera port, 4 pole stereo uotput and composite video port. Multimedia: H.264, MPEG-4 decode (1080 p30); H.264 encode (1080p30); OpenGL ES 1.1, 2.0 graphics SDcard support: micro SD mormat for loading operating system and data storage Input power: 5V/2.5A DC via usb connector, 5V DAC via GPIO heather, Poert over Ethernet enabled SD card: min 16GB The official shell</p>	komad	15

		Heat sinks Power suply: EU 2.5A power supply		
6.	Learning Module Set for Arduino	1 X UNO Board 1 X USB Cable 1 X Jump Cable 1 X Breadboard 5 X LED Light 1 Pack Resistor 1 X Potentiometer 1 X Buzzer 1 X Shift RegistersWith 3-State Output Registers 1 X Infrared receiver 1 X Temperature sensor 1 X Flame Sensor 1 X Ball Switch 1 X Photoresistor 1 X Key button 1 X Infrared Remote Controller 1 X 4-digit display tube 1 X 8*8 Dot matrix module 1 X 1-digit display tube 1 X Stepper motor driver board 1 X Stepper motor 1 X 9g Servo 1 X IIC LCD 1 X XY joystick module 1 X Temperature humidity sensor 1 X Water test module 1 X RFID Module 1 X RFID keychain 1 X RFID White card 1 X Sound Module 1 X Relay Module 1 X Clock Module 1 X 4*4 Key board 1 X RGB 3 color module 1 X 9V battery Snap	komad	21
7.	Dupont line 30cm male to male male to female and female to female jumper wire	2.54mm 1pin male to Female, Length:30cm, Qty:40pcs 2.54mm 1pin male to male, Length:30cm, Qty:40pcs 2.54mm 1pin Female to Female, Length:30cm, Qty:40pcs	komad	8
8.	Dupont line 20cm male to male male to female and female to female jumper wire	2.54mm 1pin male to Female, Length:20cm, Qty:40pcs 2.54mm 1pin male to male, Length:20cm, Qty:40pcs	komad	13

		2.54mm 1pin Female to Female, Length:20cm, Qty:40pcs		
9.	Dupont line 10cm male to male male to female and female to female jumper wire	2.54mm 1pin male to Female, Length:10cm, Qty:40pcs 2.54mm 1pin male to male, Length:10cm, Qty:40pcs 2.54mm 1pin Female to Female, Length:10cm, Qty:40pcs	komad	8
10.	Set of sensors	Temperature and humidity sensor module x 1 Infrared human body induction module x 1 Real time clock module x 1 The rain sensor module x 1 Sound sensor module x 1 Ultrasonic sensor x 1 The flame sensor module x 1 Llaser head sensor module x 1 Photo sensitive resistance sensor module x 1 The soil moisture sensor x 1 Obstacle avoidance sensor x 1 Vibration sensor module x1 MQ-2 gas sensor module x1 Super regenerative module x1 The tilt sensor module x1 A path tracing module x1	komad	15
11.	Microcontroller development board	Microcontroller: ATmega2560 or equivalent Operating Voltage: 5V Input Voltage(recommended): 7-12V Digital I/O Pins: 54(of which 14 provide PWM output) Analog Input Pins: 16 DC Current per I/O Pin: 40mA Flash Memory : 256KB of which 4 KB used by bootloader DC Current for 3.3 V Pin: 50 mA SRAM: 8 KB EEPROM: 4KB Clock Speed: 16MHz On board programming interface Power supply jack Free open source IDE	komad	6
12.	Arduino Uno with Cable	Microcontroller: ATmega328 (DataSheet: ATmega328) Operating Voltage: 5V Input Voltage (recommended): 7-12V	komad	10

		Input Voltage (limit): 6-20V Digital I/O Pins: 14 PWM Digital I/O Pins: 6 Analog Input Pins: 6 DC Current per I/O Pin: 40 mA DC Current for 3.3V Pin: 50 mA Flash Memory: 32 KB Flash Memory for Bootloader: 0.5 KB SRAM: 2 KB EEPROM: 1 KB Clock Speed: 16 MHz USB Type A 2.0 to USB Type B 2.0 Cable for power and programming		
13.	Arduino LED Starter Kit	1x LCD 1602 Module 1x Servo Motor 1x Motion Sensor(Tilt Switch) 1x Light Sensor(Photocell) 1x Temperature Sensor 1x Buzzer 1x Relay 2x Switch 2x Button(Large) 1x Button Cap(red) 1x Button Cap(white) 4x Button(small) 1x Potentiometer 1x RGB LED 2x Green LED 10x Red LED 2x Yellow LED 2x Blue LED 2x NPN Transistor 2x PNP Transistor 2x Diode(1N4148) 2x Diode(1N4001) 16x Resistor (220Ω) 10x Resistor (1KΩ) 5x Resistor (10KΩ) 5x Resistor (100KΩ) 5x Resistor (1MΩ) 5x Resistor (5.1MΩ) 1x Breadboard 1x Hookup Wire Set 10x Male to Female Jumper Wires 1x Header(40pin) 1x Band Resistor Card 1x Project Box	komad	3
14.	Arduino RFID Starter Kit	1x UNO Board (Arduino UNO) 1x RC522 RFID Module	komad	1

		1x RFID ID Round Tag 1x RFID ID Card 1x Ultrasonic distance sensor 1x ADXL345 Acceleration Sensor 1x servo 1x Joy stick 1x IR receiver HX1838 1x Remote controller 1x Dot-matrix display 2x 74HC595 1x DHT-11 Temperature and Humidity Sensor 1x DC Motor 1x L9110 motor driver 1x Relay 1x LCD1602 1x 7-Segment Display 1x Four-digit segment display 1x Active buzzer 1x Passive buzzer 2x Thermistor 2x Photoresistance 1x LED bar graph 1x 4*4 Matrix keyboard 2x Switch 1x RGB LED 8x Red LED 2x Green LED 2x Yellow LED 2x Blue LED 16x Resistor(220Ω) 10x Resistor(1 kΩ) 5x Resistor(10 kΩ) 5x Capacitor(104) 2x Capacitor(10uF) 4x Button(large) 4x Button(small) 1x Button cap(red) 1x Button cap(white) 2x Button cap(blue) 2x NPN Transistor(8050) 2x PNP Transistor(8550) 2x Potentiometer(10KΩ) 2x 1N4148 Diode 2x 1N4001 Diode 1x Battery holder 1x Breadboard 1x USB Cable 40x Male to Male Jumper Wires 20x Male to Female Jumper Wires		
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		1x Header(40pin) 1x Band Resistor Card 1x Project Box		
15.	Breadboard + Cables	1 terminal Strip, tie-point 630 2 Distribution Strips, tie-point 200 Solderless breadboard (MB-102) Wire size: Suitable for 29-20 AWG wires Size: 16.5 x 5.5 x 0.85 cm. Breadboard jumper cable wires 65PCS: - 49 pcs 120mm length*2 - 8 pcs 150mm length*2 - 4 pcs 200mm length*2 - 4 pcs 240mm length*2	komad	15
16.	DHT22 Air Temperature/Humidity	Type:AM2302. Accuracy resolution:0.1. Humidity range:0-100%RH. Temperature range:-40~80°C. Humidity measurement precision:±2%RH. Temperature measurement precision:±0.5°C. 4-pin package. Ultra-low power.	komad	13
17.	Arduino Ultrasonic Sensor	Working Voltage : 5V(DC) Static current: Less than 2mA. Output signal: Electric frequency signal, high level 5V, low level 0V. Sensor angle: Not more than 15 degrees. Detection distance: 2cm-450cm. High precision: Up to 0.3cm Input trigger signal: 10us TTL impulse Echo signal: output TTL PWL signal	komad	10
18.	Propeller Fan Motor Module	L9110 drive, speed control with ZhuanPei mounting holes, screw compatible steering gear steering wheel control high quality, high efficiency. Working voltage: 5v Propeller diameter: 7.5cm/2.95"(Approx.)	komad	10
19.	Soil Humidity Sensor	Operating voltage 3.3V-5V Module dual output mode, digital output, analog output PCB size: 3cm * 1.6cm Power indicator (red) and digital switching output indicator (green) Comparator LM393 chi	komad	13
20.	Microphone Sensor	Analog output, real-time output voltage signal of the microphone DO, when the sound intensity reaches a	komad	13



		<p>certain threshold, the output high and low signal</p> <p>Mounting screw hole 3mm</p> <p>5v DC power supply</p> <p>Analog output</p> <p>High sensitive microphone</p> <p>A power indicator light</p>		
21.	Capacitive Touch Sensor	<p>Low power consumption</p> <p>Power supply for 2 ~ 5.5V DC</p> <p>Can replace the traditional touch of a button</p> <p>Four M2 screws positioning holes for easy installation</p>	komad	13
22.	Water level Sensor	<p>Operating voltage: DC3-5V</p> <p>Operating current: less than 20mA</p> <p>Sensor Type: Analog</p> <p>Detection Area: 40mmx16mm</p> <p>Production process: FR4 double-sided HASL</p> <p>Operating temperature:10°C-30°C</p> <p>Humidity: 10% -90% non-condensing</p> <p>Product Dimensions: 62mmx20mmx8mm</p>	komad	15
23.	Air Quality Sensor	<p>Chip: LM393, ZYMQ-2 gas sensors</p> <p>Working voltage: DC 5V</p> <p>dual signal output (analog output, and TTL level output)</p> <p>TTL output</p> <p>0~5V analog output voltage, the higher the concentration the higher the voltage</p> <p>rapid response and recovery</p>	komad	13
24.	Resistors Kit	<p>1% 1/4W Metal Film Resistor Assorted Kit</p> <p>30 Values Total 300pcs 10pcs Each</p> <p>1% Tolerance</p> <p>30 values of resistance</p> <p>Quantity: 30 values x 10pcs=300pcs</p> <p>The value list:</p> <p>10Ω, 22Ω, 47Ω, 100Ω, 150Ω, 200Ω, 220Ω, 270Ω, 330Ω, 470Ω, 510Ω, 680Ω, 1KΩ, 2KΩ, 2.2KΩ, 3.3KΩ, 4.7KΩ, 5.1KΩ, 6.8KΩ, 10KΩ, 20KΩ, 47KΩ, 51KΩ, 68KΩ, 100KΩ, 220KΩ, 300KΩ, 470KΩ, 680KΩ, 1M</p>	komad	10
25.	Capacitors Kit	<p>50PCS Electrolytic Capacitor</p> <p>100/220/330/470/680/820/1000/3300uF</p> <p>25V 16V 10V 50V</p>	komad	8

26.	Male to Male Cables Kit	40 pcs. Jumper Cables Head type: male to male Length: 10cm Compatible with 2.54mm spacing pin headers	komad	10
27.	Potentiometer Module for Arduino	10K Ohm Rotary Potentiometer Module for Arduino	komad	15
28.	Push Button Switch Kit (100 PCS)	Size: 6x6x5mm. Temperature: -30~+70 Centigrade. Withstand Voltage: AC250V. Rated Load: DC12V 50mA. Contact Resistance: $\leq 0.03\Omega$ . Insulation Resistance: $\geq 100M\Omega$ .	komad	2

#### VI Način plaćanja

Naručilac se obavezuje da će plaćanje izvršiti u roku od 15 dana od dana izdavanja računa od strane ponuđača.

#### VII Rok isporuke robe, izvođenja radova, odnosno pružanja usluge:

45 dana od dana prihvatanja ponude.

#### VIII Kriterijum za izbor najpovoljnije ponude:

X najniža ponuđena cijena

broj bodova

#### IX Rok i način dostavljanja ponuda

Ponude se predaju radnim danima od 09:00 do 14:00 sati, zaključno sa danom 05.09.2019. godine do 14:00 sati.

Ponude se mogu predati:

X neposrednom predajom na arhivi naručioca na adresi: Elektrotehnički fakultet, Džordža Vašingtona bb, 81000, Podgorica, Crna Gora.

X elektronskim putem na meil adresu: zaric@ucg.ac.me.

#### X Rok za donošenje obavještenja o ishodu postupka

5 radnih dana od isteka roka za dostavljanje ponuda.

#### XI Druge informacije

Sastavni dio predmetne dokumentacije je i izjava ponuđača da pod punom moralnom,

materijalnom i krivičnom odgovornošću u cjelosti ispunjava uslove iz člana 65 Zakona o javnim nabavkama CG.

Izjava mora biti potpisana i pečatirana od strane ovlaštenog lica ponuđača.

Ponude se mogu predati za svaku partiju pojedinačno ili za sve partije u skladu sa Zakonom o javnim nabavkama CG.

NAPOMENA:

**Način iskazivanja ponuđene cijene:**

Ponuđač dostavlja ponudu sa cijenom izraženom u EUR-ima, sa posebno iskazanim PDV-om.

U ponuđenu cijenu moraju biti uračunati svi troškovi i popusti na ukupnu ponuđenu cijenu, sa posebno iskazanim PDV-om u skladu sa zakonom.

Ponuđena cijena piše se brojkama.

Službenik za javne nabavke  
Prof. dr Nikola Žarić



Ovlašteno lice naručioca  
Prof. dr Saša Mujović



**OBRAZAC PONUDE SA OBRASCIMA KOJE PRIPREMA PONUĐAČ**

**PODACI O PONUDI I PONUĐAČU**

Ponuda se podnosi kao:

samostalna ponuda.

Podaci o podnosiocu samostalne ponude:

Naziv i sjedište ponuđača	
PIB <sup>1</sup>	
Broj računa i naziv banke ponuđača	
Adresa	
Telefon	
Fax	
e-mail	
Lice/a ovlašteno/a za potpisivanje finansijskog dijela ponude i dokumenata u ponudi	(Ime, prezime i funkcija)
	(Potpis)
Ime i prezime osobe za davanje informacija	

<sup>1</sup> Ili nacionalni identifikacioni broj prema zemlji sjedištu ponuđača

**FINANSIJSKI DIO PONUDE**

r.b.	opis predmeta	bitne karakteristike ponudnog predmeta nabavke	jedinica mjere	količina	jedinična cijena bez PDV-a (€)	ukupan iznos bez PDV-a (€)	pdv (€)	ukupan iznos sa pdv-om (€)
1								
2								
3								
Ukupno bez PDV-a:								
PDV:								
Ukupno sa PDV-om:								

**Uslovi ponude:**

Rok isporuke/izvršenja ugovora je	
Rok plaćanja	
Način plaćanja	
Period važenja ponude	

Ovlašćeno lice ponuđača

\_\_\_\_\_  
(ime, prezime i funkcija)\_\_\_\_\_  
(potpis)

M.P.

U skladu sa Odredbama Zakona o javnim nabavkama Crne Gore ("Sl. List CG" br.42/11. 57/14, 28/15 i 42/17) i člana 7 stav 6 Pravilnika o sadržaju akta i obrascima za sprovođenje nabavke male vrijednosti ("Sl. List CG" br. 49/17), dajemo sljedeću:

### I Z J A V U

Pod punom moralnom, materijalnom i krivičnom odgovornošću izjavljujemo da uslove iz člana 65 Zakona o javnim nabavkama CG u potpunosti ispunjavamo.

Ova izjava je sastavni dio dokumentacije predmeta javne nabavke tj. zahtjeva za dostavljanje ponuda.

Potpis ovlašćenog lica

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Datum i mjesto potpisivanja

MP