# Humanoid Robot for UWB (2024)

# PURCHASE CONTRACT

*according to § 2079 et seq. Act No. 89/2012 Coll., Civil Code*

Contract is concluded on the basis of the result of the open above-limit public procurement procedure registered on the contracting authority's profile under the system number: P24V00000179

the Purchaser's contract number: will be stated in the record of publication of the contract in the register of contracts according to Act. No. 340/2015 Coll.

the Seller's contract number: ………..

Co-financed from the Programme Johannes Amos Comenius, project PhD Infra of UWB project registration number: CZ.02.01.01/00/22\_012/005200

#### Contracting Parties

1) N**ame: Fondazione Istituto Italiano di Tecnologia**

Address: via Morego 30, 16163 Genova, Italy

Identification number: 09198791007

Tax identification number: 97329350587

Represented by: xxxx

Bank: Crédit Agricole Italia S.p.A.

Account number: IBAN: IT83W0623001437000030480309

(hereinafter referred to as the “Seller”)

and

2) **University of West Bohemia**

Address: Univerzitní 2732/8, Plzeň, PC 301 00

Identification number: 49777513

Identification tax number: CZ49777513

Established under: Act 314/1991 Coll.

Represented by: prof. RNDr. Miroslav Lávička, Ph.D., Rector

(hereinafter referred to as the “Purchaser”)

**Article I**

**Subject of Contract**

1. The Seller undertakes to deliver to the Purchaser, as provided in this Contract, **one piece of humanoid robot**, according to the technical specifications set out in Annex no. 1, which is an integral part of this Contract (hereinafter referred to as the "Subject of Purchase").
2. The Subject of Purchase must be new, fully functional and complete, so as to allow its full utilization, for the following purposes: research and development, education and research results presentation.
3. The Subject of Purchase must be delivered in the agreed quantity, quality, features, time and place. The Seller undertakes to fulfil other related responsibilities under this Contract, and to transfer the ownership right to the Subject of Purchase to the Purchaser.
4. An integral part of the Subject of Purchase is the delivery of the Subject of Purchase to the place of fulfilment, the delivery of technical documentation and user’s manuals (in the Czech or English language, in paper or electronic form).
5. The Purchaser undertakes to take over the delivered defectless Subject of Purchase, and pay the Seller the price stipulated in the Contract under the conditions specified herein.

**Article II**

**Time and Place of Fulfilment**

1. The Seller undertakes to deliver the Subject of Purchase to the Purchaser at the place of fulfilment which is University of West Bohemia (Západočeská univerzita v Plzni), Czech republic, Pilsen, Technická 8, Door no. UN455, not later than 12 (twelve) months after the conclusion of this Contract.
2. The Subject of Purchase will be handed over by the Seller and taken over by the Purchaser on the basis of a mutually signed and dated handover protocol in writing. The Purchaser is not obliged to accept the Subject of Purchase which has any defect or unfinished work.

**Article III**

# Price and Payment Terms

1. The purchase price is to be paid by the Purchaser to the seller's bank account on the basis of a tax document - invoice, in the following parts:
2. 40 % of the purchase price after concluding the purchase contract (after the delivery of the proforma invoice issued by the Seller to the Purchaser);
3. 60 % of the purchase price after the proper handover and acceptance of the defectless Subject of Purchase and the signing of the handover protocol by authorized representatives of both Contracting Parties in accordance with Article II paragraph 2) of this Contract.
4. The Purchaser undertakes to pay the Seller for the delivery of the Subject of Purchase the purchase price in the amount of **305,990.00** EUR (in words three hundred five thousand nine hundred and ninety euros/00) without VAT. VAT will be charged to the price by the Seller under current legislation.
5. The purchase price is determined as the highest acceptable maximum and cannot be exceeded, including all fees and any other costs associated with the fulfilment of the Contract (e.g. transport, storage, approval procedure, execution of prescribed tests, ensuring conformity declaration, certificates and attestations, transfer of rights, insurance, etc.). The Seller is not entitled to charge any additional sums in connection with the fulfilment hereunder.
6. The price may only be exceeded in relation to a change in tax legislation regarding VAT.
7. The purchase price will be paid by the Purchaser in the EUR based on a tax document/invoice.
8. The maturity of the invoice is agreed for 30 days following the day of its demonstrable delivery to the Purchaser.
9. The tax document/invoice must contain all the essentials of proper accounting and tax documents in terms of the relevant legislation, especially Act no. 235/2004 Coll., On Value Added Tax, and all requirements specified in this Contract. In the event that the invoice does not include adequate essentials, the Purchaser is entitled to return it by the due date to the Seller for completion, without the Purchaser thus getting into arrears with payment. The maturity period starts to run again from the re-delivery of the duly completed or corrected document to the Purchaser. Invoices must include annexed copies of the protocol of the handover and acceptance of the fulfilment signed by both Contracting Parties.
10. In the case of a delay in the payment of an invoice by the Purchaser, the Seller is only entitled to require the Purchaser to pay the interest on late payment in the amount of 0,05 % of the outstanding amount per each even partial day of the delay in the payment of invoices. The total amount of the contractual penalty is limited to 10 % of the purchase price.
11. The tax document/invoice must be marked with the project registration number, i.e. “project reg. n. CZ.02.01.01/00/22\_012/005200”.

**Article IV**

**Transfer of Ownership Right**

1. The Seller shall transfer the ownership right to the Subject of Purchase to the Purchaser on the date of the proper handover and acceptance of the Subject of Purchase, based on the signing of the handover protocol by authorized representatives of both Contracting Parties in accordance with Article II paragraph 2) of this Contract. At the same moment, danger of damages to the goods also passes to the Purchaser.

**Article V**

**Warranty**

1. The Seller gives the Purchaser a warranty for the quality of the Subject of Purchase hereunder, for the duration of at least 12 months.
2. The warranty period commences on the date of the proper handover and acceptance of the Subject of Purchase from the Seller, based on the signature of the handover protocol by authorized representatives of both Contracting Parties in accordance with Article II paragraph 2) of this Contract.
3. The Purchaser is entitled to report to the Seller warranty defects and other defects which existed at the time of the handover of the Subject of Purchase and claim rights arising from such defects any time during the warranty period no matter when the Purchaser found said defects or when the defects should have or could have been found in the exercise of proper care. In case that the Purchaser reports to the Seller a defect in the course of the warranty period (i.e. the Purchaser reports a defect by mail or data box on the last day of the warranty period at the latest) is this defect deemed as reported in time, while the application of provisional statutes which deviate from the above conditions is excluded.
4. The Seller shall carry out warranty repairs free of charge and without delay with regard to the type of the defect in the device. The Seller undertakes to respond (registration of the requirement reported by the Purchaser) no later than in two business days. The Seller undertakes to eliminate the defect within 30 working days following the notification of the defect by the Purchaser, unless agreed otherwise in writing.
5. Regarding the elimination of the defect, the Contracting Parties shall draw up a report in which official representatives of both Contracting Parties confirms the elimination of the defects. The warranty period is extended by the time that elapses from the date of the notification of a defect till the elimination of this defect.
6. In the case of non-compliance with the specified (or otherwise agreed) deadline for completing the warranty repairs, the Purchaser is entitled to assess the Seller a penalty in the amount of 0,05 % of the purchase price for the delivery of the Subject of Purchase for each even partial day of delay, which does not affect the Purchaser’s right to compensation. The total amount of the contractual penalty is limited to 10 % of the purchase price.

**Article VI**

**Communication between Contracting Parties**

1. Any communication or other arrangements of the Contracting Parties under this Contract shall be addressed to the representatives of the Contracting Parties, in the English language:

On the Seller’s behalf:

name: xxxx

email: xxxx

tel.: 0039 xxxx

On the Purchaser’s behalf:

name: xxxx

email: xxxx

tel.: +420 xxxx

These representatives are, however, not authorized to sign any supplement to this Contract.

1. If the Contract requires the written form for a communication or other dealings of the Contracting Parties, such communication shall be sent through the postal services to the address of the Contracting Party concerned, to the attention of the representative of such Contracting Party under this Contract.

**Article VII**

**Other Arrangements**

1. Regarding contractual sanctions (contractual penalties), the liable Party must pay the rightful Party contractual sanctions within 30 calendar days of the receipt of the relevant billing from the other Contracting Party.
2. Payment of contractual penalties under this Contract does not affect the right of the Contracting Party to compensation for any property and/or non-material damage caused by the breach of duty by the other Contracting Party to which the sanctions apply, not even its amount when compensation possibly exceeds the contractual penalty.
3. The Purchaser is entitled to set off, against the invoiced amount, any penalty that the Seller is obliged to pay.
4. The Seller isn’t entitled to transfer any rights or obligations from this contract to third parties without the prior written consent of the Purchaser.
5. The Seller agrees that he will not be able to assign or set off any of his claims against the Purchaser arising on the basis of this contract through unilateral legal action.
6. The participants of this contract expressly declare that they have communicated to each other all factual and legal circumstances of which they knew or should have known on the date of conclusion of this contract, and which ale relevant in relation to the conclusion of this contract and the fulfilment of its purpose.
7. The Purchaser notifies [the Seller] and the Seller acknowledges that the Subject of Purchase is to be paid from the earmarked funds provided from the budget of the European Union for the implementation of the approved project (hereinafter referred to as the "Grant") and the Purchaser is obliged to ensure that no part of the Grant is provided to persons who are in a conflict of interest or who are subject to international sanctions within the meaning of Act No. 69/2006 Coll., on Implementation of International Sanctions, or other restrictions set by the Grant Provider, or that such persons do not become the final beneficiaries of any part of the Grant.
8. The Seller undertakes to ensure that, in the period between the conclusion of this Contract and its complete fulfilment, its beneficial owner under Act No. 37/2021 Coll., on Registration of Beneficial Owners, does not become a person:
9. who is subject to international sanctions under Act No. 69/2006 Coll.,
10. who has a conflict of interest within the meaning of Section 2, subsection 1 (c) of Act No. 159/2006 Coll., on Conflicts of Interest[[1]](#footnote-1).
11. The Seller is obliged to keep all documentation related to the subject of performance, including accounting documents, at least ten (10) years from the full performance of the Contract, unless a longer period is stipulated by law.
12. The Seller shall, at least for the period for which it is obliged to keep the documentation according to this Contract, cooperate in the performance of inspections and financial control pursuant to Act No. 255/2012 Coll., on Inspection (Inspection Code), and Act No. 320/2001 Coll., on Financial Control in Public Administration, and is also obliged to provide the required information and documentation related to the performance of this Contract to employees or representatives of the authorized bodies (i.e., to the grant provider or its intermediary body, the Ministry of Finance, the European Commission, the European Court of Auditors, the Supreme Audit Office, the authorized financial administration body or another authorized state administration body); furthermore, the Seller is obliged to create conditions for the above-mentioned persons to carry out inspections and audits related to the performance of this Contract and to cooperate in carrying out the inspections and audits.
13. The Seller undertakes to compensate the Purchaser for damages (including the reduction or non-provision of the Grant) resulting from a breach of the Seller's obligation under Article VII paragraph 8, 9 or 10 of this Contract.
14. The Purchaser is entitled to withdraw from the Contract in the event of a breach of the Seller's obligations under Article VII paragraph 8 of this Contract.

**Article VIII**

**Termination of the Contract**

1. This Contract may be terminated by a written agreement of the Contracting Parties and/or termination of the Contract for the reasons set out in this Contract or in the Act.
2. A Contracting Party may withdraw from this Contract for substantial breach of contractual obligations by the other Contracting Party. As a substantial breach of contractual obligations, the following are primarily considered:

a) by the Purchaser: failure to pay the purchase price under this Contract within a period of 30 days after the maturity of the relevant invoice,

b) by the Seller: failure to properly deliver the Subject of Purchase (or its part) within the deadline agreed,

c) by the Seller: if the Subject of Purchase does not have the properties declared by the Seller in this Contract or features under this Contract,

d) by the Seller: if the Seller is in default with the elimination of defects pursuant to Article V herein.

1. Withdrawal from this Contract shall be made in writing.
2. The effects of a withdrawal from this Contract will occur on the day when the written withdrawal by the withdrawing Contracting Party is delivered to the other Contracting Party.
3. In the event of a withdrawal from this Contract, the Contracting Parties are obliged to settle their mutual liabilities and assets, specified in the Act or in this Contract, within 30 days from the legal effect of the withdrawal or within the deadline agreed.
4. In the event of a withdrawal from this Contract by the Purchaser for a fundamental breach of contractual obligations by the Seller, the Seller must pay the Purchaser any damage suffered (both material and non-material).

**Article IX**

**Final Provisions**

1. This Contract is governed by Czech Law. Issues which are not stipulated in this Contract shall be governed by relevant provisions of Act no. 89/2012 Coll., the Civil Code, as amended. Any dispute arising from this Contract or in relation to it will fall within the jurisdiction of the Czech Court which is appropriate according to the registered office of the Purchaser.
2. Seller notes that Purchaser is a subject legally bound to publish its contracts pursuant to Act no. 340/2015 Coll., and if a contract meets the requirements for publication stipulated by the law, Purchaser will publish any such contract in the register of contracts.
3. A contract comes into force upon its conclusion, i.e. on the date of the contract signature by the authorized representatives of both contractual parties. In the case of a contract that is subject to publication in the register of contracts pursuant to Act no. 340/2015 Coll., such a contract takes effect only on the day of its publication in the register of contracts.
4. The Contract can be concluded in electronic form with simple electronic signatures or in paper form in two copies.
5. The Contract can be amended or supplemented only by written, consecutively numbered supplements signed by both Contracting Parties.
6. Should either of the Contracting Parties come to have obstacles to the proper fulfilment of this Contract, such Contracting Party is obliged to immediately and without delay notify the other Contracting Party and invoke meetings of representatives of the Purchaser and the Seller.
7. The Contracting Parties declare that they have duly read the text of the Contract, agree with its content and, as evidence of this, both Contracting Parties are affixing their signatures.
8. An integral part of this Contract are its Annexes:

Annex no. 1: Technical specifications of the Subject of Purchase

Purchaser: Seller:

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**University of West Bohemia Fondazione Istituto Italiano di Tecnologia**

prof. RNDr. Miroslav Lávička, Ph.D. xxxx

Rector xxxx

**Annex no. 1**

**Technical specifications of the Subject of Purchase**

* Minimum Height: 1,4 meters.
* Mobility: Ability to move all main body parts, including chest, arms, legs, head, and fingers. Minimum degrees of freedom (DoF) on individual parts are:
* Torso: 2 - pan and tilt.
* Head: 3 - pan, tilt, and swing.
* Arms: 5 - 2 for shoulder, 1 for elbow and 2 for wrist.
* Legs: 5 - 2 for hip, 1 for knee and 2 for ankle.
* Fingers: sufficient number for grasping.
* Human-Machine Interaction: Equipped with two cameras for stereovision mounted in the humanoid robot head or an RGBD camera for RGB and depth sensing, stereo microphone, and speaker to enable voice communication with humans.
* Power Supply: The ability to operate using a rechargeable battery or a conventional power supply with cables.
* On board Computer: Integrated computer with a UNIX family operating system (preferably a Linux distribution) supporting ROS[[2]](#footnote-2) framework. CPU performance at least 3700 points in CPU benchmark[[3]](#footnote-3), at minimum 4GB RAM and at least 32GB SSD storage. Capability of machine learning inference on GPU (can be in a separate computing unit).
* Programmability: Open-source API for accessing hardware (both sensors, and actuators) working on Windows, Linux and MacOS. Also documented SDK and API for the development and integration of custom applications and functionalities.
* Artificial Intelligence: Ability to be used for artificial intelligence tasks such as environment analysis, face recognition, and voice dialogue. For example, as a source of data for training or testing neural networks – Either on onboard computer or on remote server.
* Sensors and Navigation: Ability to walk, balance, and grasp objects. Equipped with sensors for movement sensing and control:
* minimum 6DoF inertia sensor in the head,
* absolute encoders at joints
* incremental encoders at the main joints motors,
* movement sensors on finger joints,
* tactile sensors at least in fingertips,
* LiDAR sensor for localization and mapping
* Operator Computer: PC or Laptop with preinstalled software.
* Documentation: Complete technical and user documentation in English.
* Open access to hardware: Based on Open-Source software with the ability to work directly with the robot's hardware components.
* Connectivity: Wi-Fi, Bluetooth

1. List of public officials according to Section 2 subsection 1 (c) of the Conflict of Interest Act can be downloaded here - https://justice.cz/web/msp/seznam-vf [↑](#footnote-ref-1)
2. https://www.ros.org [↑](#footnote-ref-2)
3. https://www.cpubenchmark.net/ [↑](#footnote-ref-3)