



Armath engineering laboratories

Franchise Handbook

Union of Advanced technology enterprises

[The Union of Advanced Technology Enterprises \(UATE\)](#) is a non-governmental, not-for-profit entity to represent the interests of all related stakeholders in the information technology and engineering industry in Armenia.

The UATE mission is to make Armenia an internationally recognized leader of the industry providing industry organizations and members of the Union a favorable business environment through sector development programs, advocacy, legal, business and educational services, as well as industry-leading initiatives.

One of UATE's strategies is to inspire for and educate young persons in information technology and engineering subjects offered by the Armath Engineering Labs of UATE.

Armath engineering laboratories

“Armath” is a youth engineering laboratory for 10-18-year-old children that enable the rising generation gain engineering skills, specifically in programming, 2D and 3D modeling as well as in robotics.

The project, with its expected wide-ranging social-economic impact, is linked to the national strategies of national security, economic development and education.

The most important results of the project are the stimulation of technological education in the country, the expansion of technological employment, and the establishment of additional economic activity both in the area of advanced technologies and the adjacent sectors.

It is noteworthy, that besides the mentioned economic consequences, the project stands out thanks to its large impact on the *social values*. An educational system of this kind will lead to a shift in the social values of the young due to a change in mentality and creativity.

Armath Engineering Laboratories play a big role in **the solution of economic and social problems** by teaching youth as young as of the age 10 how exciting and fun Science, Technology, Engineering and Mathematics can be.

The Armath lab programs decrease the age of productivity and creativity for the labor market.

The project has also a considerable demographic impact as more specialists are staying in the regional areas where they were born; moreover they do not emigrate and finally generates high-tech employment.

In the Armath methodology the students are free to choose their own programs, and tempo, and are working in groups conducted by a coach. Those who complete the full programs will reach the equivalent of a bachelor degree in information technology and engineering. With this Armath Lab experience the students developed a professional background. They have already the skills to start working for an information technology or engineering company or establish their own startup.

The curriculum of the Armath engineering Labs was initially developed in 2013 by Instigate Training Center Foundation in cooperation with other IT companies. The consortium of these companies is the methodology development group for making updates in the methodology and curriculum of educational model of Armath according to the new tendencies and demand of technological sector.

Armath engineering Labs are **A LOCAL INITIATIVE WITH A GLOBAL OUTREACH**
Armenian kids have access to modern technological education.

Your kids can have the same! We, from UATE know how!

The applicable and unique model of Armath engineering labs can be applied in any country, in any city and in any institution!

Why franchise Armath?

- Experienced and succeed methodology
- Transfer of the knowledge and skills to execute the formula
- Developed trainings implementation system
- Wide e-learning platform accessibility
- Proven equipment and suppliers
- Continuous support of the franchisor to the franchisee
- Common name and corporate identity

Franchising form

The franchisee is free

- to choose the business model of the project implementation. The business model must be presented to franchisor in the stage of negotiation and will be fixed in the further contract.
- to buy some of the equipment and tools in their own country, according to the technical requirements of Armath.
- to choose the location of the training-of-trainers /in Armenia or the country of destination/.

Strict rules

- For all marketing material, either offline (printing material) or online, advertisements on websites the approval of the franchisor is required.
- The franchisees are not allowed to launch a website without the confirmation of franchisor.
- The franchisees are not allowed to make changes in the methodology and curriculum without confirmation of franchisor.

Implementation plan

Action	Responsible	Comment
Prepare contract	Franchisor	
Signing of the contract	Franchisor, Franchisee	
Prepare the room according to the requirements. The presented requirements are indicated for group of 20 students max.	Franchisee	1.Space: 40-50 sq. m area room,
		2. Computer table (120x60x70 height cm): 12 pcs
		3. Computer chairs: 22 pcs
		4. Whiteboard: 1 pc
		5. Power sockets with 2 plugs (wall outlet), 220-230V (~3 Kw): 3 pcs
		6. Internet (6-port router and Wi-Fi)
Find potential teacher-coaches	Franchisee	

Provide online interviews, testing and selection of the teacher-coach	Franchisor	
Organization of the training for potential coaches	Franchisor	Professional trainer by all components of the lab will train potential teachers in Armenia or country of destination. Duration of the training will be 4 weeks.
Delivery of the equipment to the lab installation space.	Franchisor, Franchisee	Franchisor will get equipment from suppliers and send to the country of destination. The final delivery from custom office to the lab installation space will do franchisee.
Installation of equipment and software	Franchisor, Franchisee	Potential teacher-coach of the lab will be trained also to install equipment. In case of organization he trainings in the country of destination, professional trainers will ensure the installation process.
Open the access for lab and students to the global network of Armath	Franchisor	
Monitoring of activities in the lab, ongoing consulting and support	Franchisor	

Deployment Plan

The laboratories deployment contains three main cycles:

1. Laboratory equipment installation
2. Training of the trainers
3. Monitoring and coordination

The details are presented below.

Laboratory equipment installation

In case of trainings organization in the country of destination, the lab equipment and software will be installed by the professional trainers. In case of trainings in Armenia,

the installation course is included in the trainings and future teachers-coaches can do it upon arrival.

Training of the Trainers

Each potential coach will have to pass three training courses according to the stages of the project:

1. Basic Level: programs installation course, Scratch/Agues programming language, K-turtle/Kriay programming language. This stage of the trainings can be online
2. Advanced Level: Robotics set collection, different modifications and construction tools, programming of robots
3. Expert Level: 3D modeling programs course, printing on 3D printer, drilling and laser cutting by CNC machine

Evaluation, monitoring and consulting

The results of the monitoring and recommendations for organization of the further works of the laboratories will be done 1 year after labs activities.

Trainer Selection Criteria

Franchisor will assist in selecting the trainer and conduct a distant interview with the shortlisted candidates to suggest the finalists.

Trainer Job Overview: Provide engineering education to schoolchildren.

Age: 18+

Qualifications:

- Vocational or Higher degree in information technologies or related profession is preferable
- Experience in IT spheres is a plus
- Experience in pedagogical sphere is a plus
- Minimal knowledge of electronics
- Basic knowledge of 3D modelling is preferable
- Some experience in 2D Game development is a plus
- Strong organizational skills
- Being responsible and punctual
- Desire to learn and grow as a professional
- Leadership, team-building and personnel management capabilities
- Ability to set priorities and be a quick decision maker
- English language

Responsibilities:

- Train children engineering and programming skills
- Share knowledge and skills according to the Armath methodology
- Individually work with every student to ensure the growth and development
- Provide progress reports according to the Armath methodology
- Be an active member of the Armath network and support its development and growth

Technical requirements

The computers, monitors, keyboard and mouses can be bought in the country of destination by the Franchisee.

Personal Computers:

Case:

CPU: Minimum Dual-Core Processor up to 2.9 GHZ, Intel or AMD, Launch date 2018

Motherboards: e.g. ASUS H110M-A, R/C/SI

CPU Air Coolers: e.g. CK-11508 DEEPCOOL

RAM: DDR4 4GB,

HDD: 500GB, TOPCOOL

Power supply cable

Monitor:

Sizes: 22- 24"

Type: LCD/LED

Sound: internal Loudspeakers(e.g Philips 240V)

Power supply cable HDMI/VGA

Keyboard:

Standart: USB, Linux compatible, full size 104-keys

Color: Black

Language: English

(e.g. Gembird KB-U-103)

Mouse:

Spec: Optical, USB

Color: Black

(e.g. Gembird MUS-101)

Application form to be Armath representative is [here](#).

Application form to franchise Armath is [here](#).