



Armenian Drone Tech Education

Introducing Children to Robotics and Unmanned Systems Through After School Programs

Concept Paper

Vision:

To see the day when Armenia and Artsakh are free of Russian military dependency and, yet, able to provide for their own defense.

Mission:

To train children age 14-17 in the basics of embedded systems, robotics and unmanned aerial/ground systems, and to provide children with programming skills as a means to motivate them to pursue careers in engineering.

Goal:

To set up and fund enough after school training centers in Armenia to meet the demands of a growing, indigenous defense industry and modern military state.

Impact:

- The program will provide a much-needed talent pipeline for Armenian universities and will supply talent for Armenia's military industrial complex.
- The program will better prepare children for university engineering programs and will motivate more students to major in engineering disciplines.
- Will provide a continuous source of GDP growth for Armenia since an average salary for a mid-level engineer in Armenia is \$1200.

Pilot Structure:

- Solicit partners in Armenia who will provide educational training for teachers engaged in the after-school program.
- ANA will fund the set up and equipment costs for the 5 pilot laboratories and 5 trainers.

Estimated Cost for the Robotics and Unmanned Systems Laboratories

- On average, the ANA can fund 5 platforms for various after school projects.
- Each educational kit/platform is \$50-\$100 on average.
- Estimated cost for each laboratory using 30 stations per laboratory is \$10,000.

Estimated Cost for Training After School Program Teachers

- TBD

WHO ARE THE USERS AND HOW DO THEY BENEFIT?

Armenian Youth (14 -17-year-olds) will learn and understand the construction features of drones, know how to program them and give them commands according to their relevant technical specifications. There will be a crash course on aerodynamics and navigation. In the end, these students will be able to create, program and fly their own drones, improve them and participate in international youth/student-oriented events.

SECTION ONE (1 - 18 Weeks)

Drones / Quadcopters their features & Basics of Coding [6 Lessons / 3 Weeks]

Tello Edu Curriculum [12 Lessons / 6 Weeks]

Aerodynamics - Basics [6 Lessons / 3 Weeks]

Navigation - Basics [6 Lessons / 3 Weeks]

Building your own Quadcopter [6 Lessons / 3 Weeks]

SECTION TWO (2 - 17 Weeks)

Robots & their Characteristics & advance Coding [6 Lessons / 3 Weeks]

Robomaster EP Curriculum [22 Lessons / 12 Weeks]

Personal Tasks [4 Lessons / 2 Weeks]

