

# 10-15%

## Improvement in STEM subjects

ELTE University carried out a feasibility research in a working classroom environment. The outcome of this study conducted on 160 9th grade students from 5 different schools was showing 10-15% improvement in the end results of students.

Besides helping students improve their knowledge in science, this study concludes that our software products considerably raise the interest of students with average skills, thus converting part of those uncertain about science subjects into science enthusiasts.

\*The full study is available upon request.



### UNIVERSAL LOGGER

Log any measurement instrument's data that has a digital, radial-dial, or fluid-based display. Schools can save significant amount of money on lab equipment by utilizing existing liquid-in-glass, digital or radial thermometers, manometers, voltmeters etc. in order to digitally plot and record measurement data instead of buying and maintaining expensive measurement devices that connect to a PC.



### PATHFINDER

Track and detect the unseen paths and patterns of moving objects and beings. Pathfinder allows you to upload videos or use your device's camera to track patterns in moving objects or animals.



### MOTION CAM

Capture unique and intimate moments of animals and phenomenas around you. The Motion Cam function makes a recording when it detects movement in front of the camera allowing you to capture rare and intimate situations in nature.



### TIME LAPSE

Record nature's slow processes and the unseen phenomenas around you. The Time Lapse function helps you observe and better understand the slow processes in nature, such as the formation and migration of clouds, ice melting, the growth of plants, etc.



### KINEMATICS

Track and graph horizontal and vertical movement of objects by tapping a coloured object in your camera viewport. Kinematics shows a real time horizontal or vertical graph of displacement, velocity and acceleration of the tracked objects. Kinematics can track up to 3 objects simultaneously allowing students to conduct more complex experiments involving collisions and same-time comparison of movement characteristics.



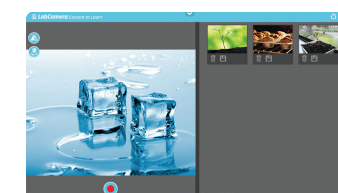
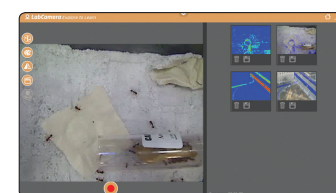
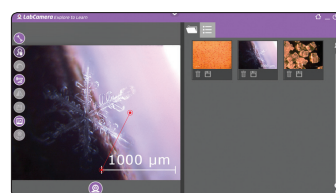
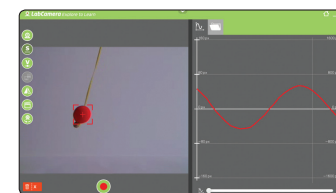
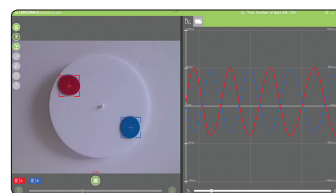
### MICROSCOPE

Explore objects of sizes ranging from microscopic to astronomic using your webcam or any external USB imaging device (cameras, document cameras, digital microscopes etc.) Built as an universal measuring tool, the Microscope module enables students and teachers to measure sizes, distances, angles and areas.



### GRAPH CHALLENGE

Understand graphs through a game-like app that follows your moves and compares it to a predefined curve. Select a curve, grab your marker, and hit the play button. All you need to do is move your body to follow the curve. You will be amazed how fun movement graphs can be! Graph Challenge is a game-like application that makes children understand the concept of graphs.





### Benefits for schools:

- Saves thousands of dollars by eliminating the need for expensive lab equipment
- Enhances performance of students in natural science studies
- Enhances school and teacher competitiveness
- Purchasing an unlimited license grants authority to schools to pass the software on to enrolled students, giving something of true value which parents will appreciate



### Benefits for students:

- Provides playful and fun experimentation and learning experiences
- Awakens instinctive curiosity towards nature and our surroundings
- Aids in-depth understanding of natural science principles and phenomenas
- Develops skills of abstraction and projection (showing relations between graphs and reality, similarities and differences between idealized objects and reality, etc.)
- Provides opportunities to safely experiment at home, even to complete homework or a really cool lab report
- Boosts self confidence and eliminates classroom pressure and time limitations (when used at home)



### Benefits for teachers:

- Puts science and nature into a new perspective, making natural science studies interesting and exciting
- Provides an instrument that inspires students to think creatively
- Teachers may carry out spectacular, computer-aided classroom experiments with the most ordinary, everyday objects
- Students may do the same experiments at the same time – develops the art of teamwork
- Provides a growing database of experimental possibilities (video-based presentations)
- Makes homework a lot more fun, helps the recognition of cross-science coherence

## Webcam based natural science exploration and data logging laboratory for STEM education

LabCamera allows students and teachers to carry out substantial scientific observations and measurements by using our software and a simple everyday webcam. Conducting physics, biology and chemistry experiments with WebCam Laboratory – both in the classroom and at home – brings natural science education to a new level.



**LabCamera**  
*Explore to Learn*



Webcam based natural science exploration and data logging laboratory for STEM education



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