

## ADVANTAGES

### LEARNING BENEFITS

PROVIDE AN AUTHENTIC EXPERIENCE,  
CLOSELY MATCHING CONVENTIONAL  
DISSECTION

STUDENTS CAN FREELY MANIPULATE  
THE VIRTUAL SPECIMEN  
PROVIDES AN INQUIRY-BASED LEARNING  
EXPERIENCE

LIFE-LIKE 3-D SPECIMEN

ACTIONS ARE REPEATABLE FOR  
INCREASED LEARNING OPPORTUNITIES

FEATURES A COMPREHENSIVE TRADITIONAL  
DISSECTION AS WELL AS DIRECT ACCESS  
TO EACH ANATOMICAL SYSTEM

### HEALTH AND SAFETY CONCERNS

NO TEACHER OR STUDENT EXPOSURE  
TO CHEMICALS

NO STUDENT EXPOSURE  
TO DANGEROUS INSTRUMENTS

### MORAL AND ETHICAL ISSUES

NO SPECIMEN HARM  
NO ECOSYSTEM HARM

### INSTRUCTIONAL ISSUES

ACTIVITY NOT CONSTRAINED TO LAB  
AVAILABILITY

NO SPECIMEN DISINTEGRATION

MULTIPLE USE OF SPECIMEN/SOFTWARE  
COMPLIES WITH LIFE SCIENCE STANDARDS  
COMPLIES WITH INQUIRY STANDARDS

# Tactus TECHNOLOGIES



VIRTUAL DISSECTION

# V-FROG™

[WWW.VFROG.NET](http://WWW.VFROG.NET)

CONTACT

[SALES@VFROG.NET](mailto:SALES@VFROG.NET)

2350 North Forest Rd  
Suite 16A  
Getzville, NY 14068  
Phone: (716) 206-8463  
Fax: (716) 829-7231

# INTRODUCING V-FROG

V-FROG IS THE WORLD'S FIRST VIRTUAL REALITY-BASED FROG DISSECTION SIMULATION DESIGNED FOR BIOLOGY EDUCATION THAT PROMISES TO DELIVER A LEARNING EXPERIENCE COMPARABLE TO CONVENTIONAL FROG DISSECTION, WITHOUT THE ASSOCIATED SAFETY RISKS AND MORAL CONCERNS.

## WHAT STUDENTS CAN DO

WITH V-FROG A STUDENT CAN CUT, PROBE, AND EXPLORE THE FROG AS WELL AS ACTIVATE VARIOUS BIOLOGICAL SYSTEMS IN ORDER TO SEE HOW THEY FUNCTION IN A LIVE FROG.

## INNOVATION

V-FROG HAS MANY ADVANTAGES COMPARED TO MULTIMEDIA-BASED FROG DISSECTION SOFTWARE, THE MOST IMPORTANT OF WHICH ALLOWS FOR TRUE REAL-TIME INTERACTION WITH THE SPECIMEN. V-FROG USES INTRICATE TECHNICAL INNOVATIONS, BASED ON THE LATEST VIRTUAL SURGERY TECHNOLOGY, TO PERFORM SUCH TASKS AS CUTTING, GRASPING, PEELING AND PROBING.

## WHO SHOULD USE IT

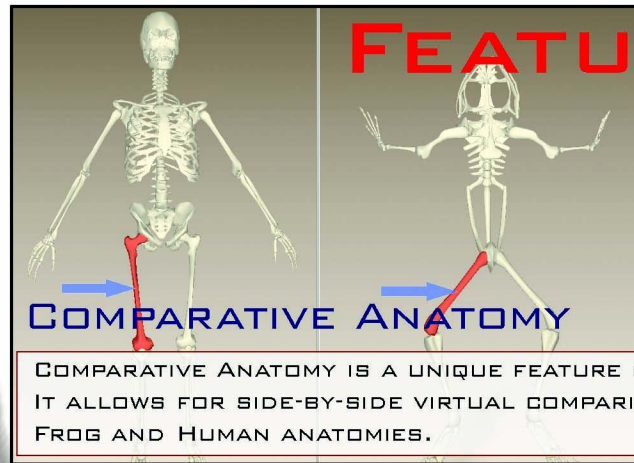
V-FROG IS DESIGNED FOR USE IN THE BIOLOGY CURRICULUM OF U.S. MIDDLE SCHOOLS AND HIGH SCHOOLS. IT CAN BE USED AS A SUPPLEMENT OR AS AN ALTERNATIVE TO CONVENTIONAL DISSECTION, PROVIDING MORE DETAIL AND REPEATED LEARNING OPPORTUNITIES.

- V-FROG WILL RUN ON STANDARD PCs



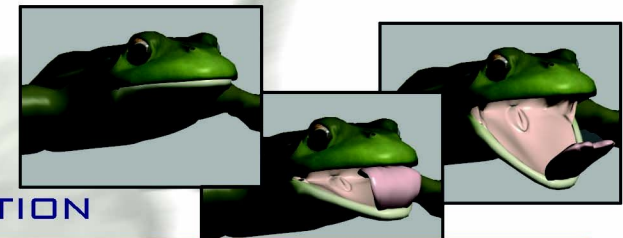
THE RESEARCH REPORTED HERE WAS SUPPORTED BY THE INSTITUTE OF EDUCATION SCIENCES, U.S. DEPARTMENT OF EDUCATION, THROUGH A GRANT TO TACTUS TECHNOLOGIES. THE OPINIONS EXPRESSED ARE THOSE OF THE AUTHOR AND DO NOT REPRESENT VIEWS OF THE U.S. DEPARTMENT OF EDUCATION.

## FEATURES



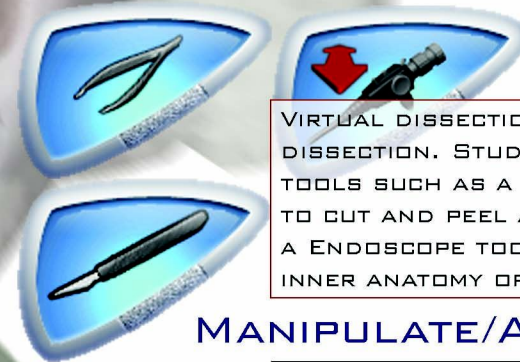
### COMPARATIVE ANATOMY

COMPARATIVE ANATOMY IS A UNIQUE FEATURE OF V-FROG. IT ALLOWS FOR SIDE-BY-SIDE VIRTUAL COMPARISONS OF FROG AND HUMAN ANATOMIES.



### ACTIVATION

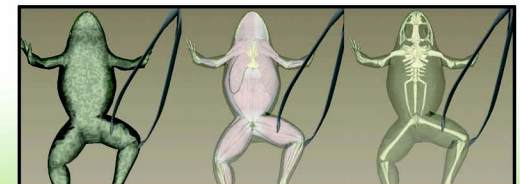
IN V-FROG, AN ACTIVATION IS THE SIMULATION OF AN ACTUAL MOVEMENT OR PROCESS COMPLETED BY THE SPECIMEN AS THOUGH IT WAS ALIVE.



### VIRTUAL DISSECTION

VIRTUAL DISSECTION MIMICS ACTUAL FROG DISSECTION. STUDENTS USE VIRTUAL TOOLS SUCH AS A SCALPEL AND TWEEZERS TO CUT AND PEEL AWAY SKIN, AS WELL AS A ENDOSCOPE TOOL TO EXPLORE THE INNER ANATOMY OF THE FROG.

### MANIPULATE/ARTICULATE



STUDENTS CAN MANIPULATE THE MOVABLE PARTS OF A FROG SUCH AS THE LIMBS, AND JAW. MANIPULATIONS DEMONSTRATE THE KINEMATICS OF VARIOUS JOINTS AND MOVING PARTS, AND PROVIDE A CLEAR DEMONSTRATION OF THE VARIOUS MUSCLES INVOLVED IN MOVEMENT.