STEAM
A Hands-on Look at Creating In the Classroom 101 (CTC 101) Kit

Content provided by

intel

arduino
REDEFINING
THE LEARNING EXPERIENCE
ONE CLASSROOM
AT A TIME
WHAT IS ARDUINO?
ARDUINO EDUCATION FOR SCHOOLS
CHALLENGES
CTC 101
DEMOS
CONCLUSION
WHAT IS ARDUINO?

ARDUINO BOARDS

SOFTWARE

DOCUMENTATION

COMMUNITY
ARDUINO BOARDS

ARDUINO 101
CO-DEVELOPED WITH INTEL
EDUCATION BOARD
ONBOARD 6-AXIS IMU
BLE
NEURAL NETWORK
TRADITIONAL JAVA IDE
CROSS PLATFORM
“PAST” COMPATIBLE

WHAT IS ARDUINO?
HTML5 IDE
WORKS FROM ANY BROWSER
“FUTURE” COMPATIBLE
COMMUNITY

GLOBAL PARTICIPANTS
LOCAL MEETUPS
ACTIVE DISTRIBUTION NETWORK
OVER 300,000 REGISTERED FORUM USERS
OVER 110 M UNIQUE VISITORS PER YEAR
WHO USES ARDUINO?

Arduino is used in nearly every university around the world

CTC 101 brings Project Based Learning to formal education in STEAM
EXPERIENCE

INTERACTION FOCUS

QUICK ITERATIONS

HARD/SOFTWARE INTEGRATION

CREATIVE PROCESS

GROUP COLLABORATION
NOW TO THE FUTURE

PAST VS. FUTURE

ANALOG VS. DIGITAL

CREATIVE USE OF TECHNOLOGY
VISION

COLLABORATIVE LEARNING
PROJECT BASED LEARNING
MULTIDISCIPLINARY
CTC 101 TOOLBOX

CTC 101 IS AN OFFICIAL EDU PACKAGE OFFERING FROM ARDUINO TAILORED TO SCHOOLS

ONLINE TRAINING MATERIALS

REMOTE SUPPORT

NETWORK OF CERTIFIED PARTNERS FOR LOCAL DELIVERY AND CUSTOM NEEDS
Electronics Education ↔ Real world applications
Engaging exercises ↔ Collaborative learning
Immediate feedback ↔ Skill upon completion
Open design challenge ↔ Practical application of theories
All inclusive ↔ Affordable and reusable
Extensive documentation ↔ Large knowledge and support base
CTC 101 TOOLBOX

MDF COMPONENTS
EASILY ASSEMBLED COMPONENTS
ELECTRONICS PARTS FOR OVER 25 PROJECTS
CTC has already been launched in multiple languages and well received in several countries.
FOCUS ON TEACHERS
GROUP-BASED LEARNING

Up to 30

BLOCK

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<th>PROJECT 1</th>
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LEARNING BY MAKING

EMBODIED LEARNING
PHYSICAL INTERACTION
HANDS-ON
IMMEDIATE FEEDBACK
LEARNING BY TEACHING

COLLABORATIVE LEARNING
DESIGN THINKING
PRESENTATION SKILLS
WHAT PHASES DOES IT INVOLVE?

A. Teacher Training

B. Learning Activities

C. Student Projects

D. Technology Faire
ONLINE DOCUMENTATION

26 PROJECTS

VIDEOS

CODE

STEP-BY-STEP BUILDING INSTRUCTIONS
WEBINARS

SHARED RESOURCES

FORMULATE QUESTIONS

10 SESSIONS
DEMOS

ASSEMBLY

DEMONSTRATION
PROJECT

LEARNING ABOUT BINARY NOTATION

DIGITAL SOUND

FOR BETT DEMO: BLE
DEMONSTRATION
BINARY LP APP
PROJECT

CONNECT SOFTWARE AND HARDWARE

USE OF ONBOARD SENSORS

LEARNING ABOUT GAME DYNAMICS
DEMONSTRATION
CTC RESULTS

- **646 SCHOOLS**
- **19,000 STUDENTS**
- **1,300 PROJECTS**
- **11 FAIRES**

- **90% STUDENTS WANT TO LEARN MORE ABOUT PROGRAMMING**
- **95% TEACHERS WILL RETEACH LESSONS FOR THEIR STUDENTS**
- **69% TEACHERS LEARNED PROGRAMMING THROUGH THE CTC TRAINING**
- **99% TEACHERS ARE SATISFIED WITH THE CTC TOOLBOX**
INTERESTED IN BUYING CTC 101 OR BECOMING AN OFFICIAL ARDUINO EDUCATIONAL PARTNER?

arduino.cc/edu
store-usa.arduino.cc