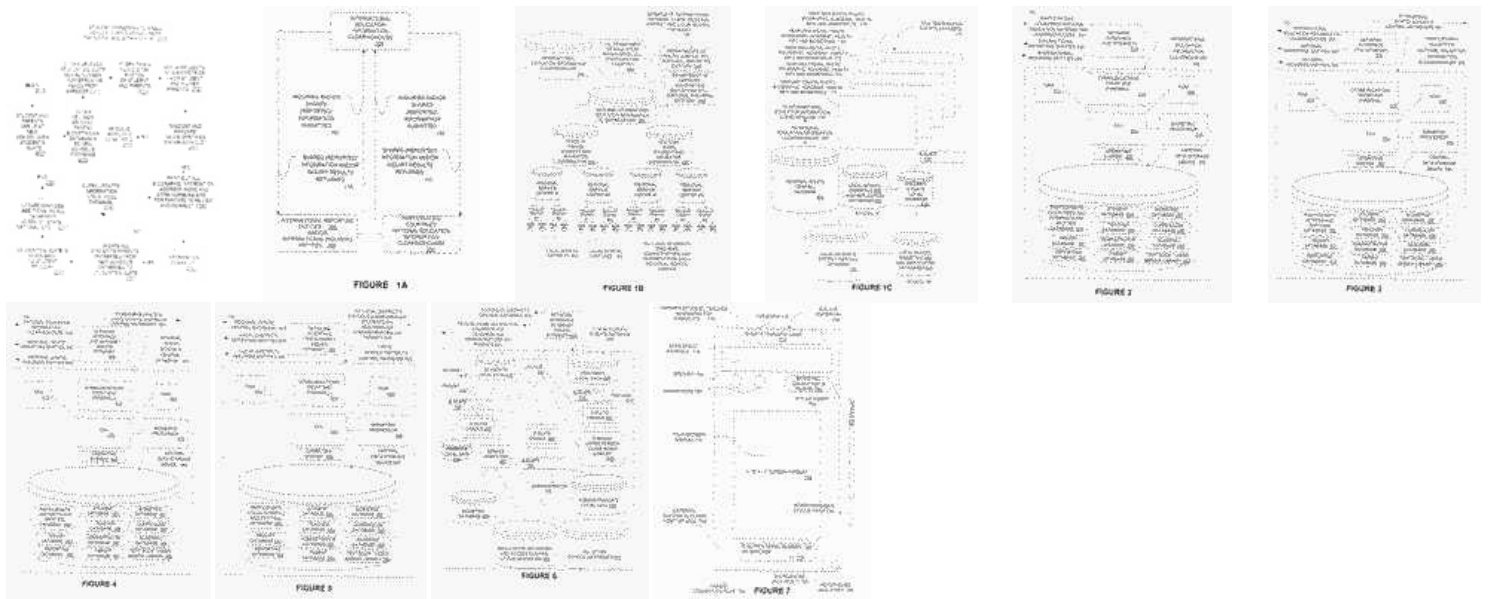


114919 results for ((lab OR laboratory)/TI/AB/IW/CLMS/DESC/ODES/OBJ/ADB/ICLM/KEYW/TX AND (teach+ OR school+ OR education)/TI/AB/IW/CLMS/DESC/ODES/OBJ/ADB/ICLM/KEYW/TX AND (portable OR mobile OR mov+)/TI/AB/IW/CLMS/DESC/ODES/OBJ/ADB/ICLM/KEYW/TX AND (computer OR projector OR tablet)/TI/AB/IW/CLMS/DESC/ODES/OBJ/ADB/ICLM/KEYW/TX) - Collection: FAMPAT

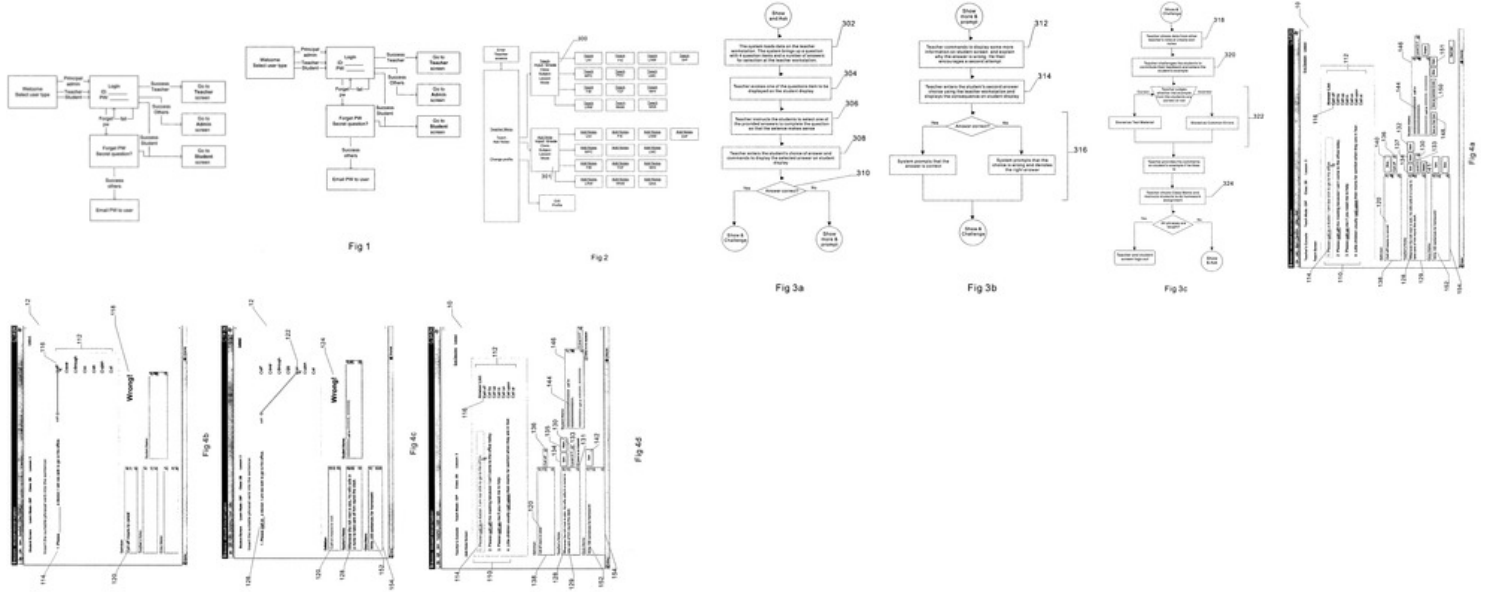
#	 Title	Publication number	1st App. date	Applicant/Assignee	1st Publ. date	Publ. date
1.	 Method and apparatus for an electronic collaborative education process model	WO200116917	2000-08-28	INTER PARES* INTERPARES	2001-03-08	2001-03-08

A method and apparatus is provided for facilitating education operations. A portable processor-based apparatus is adapted to releasably couple with a cradle (900) which is maintained at least in the school environment. The portable device (700) may be coupled through the cradle to a school network (600), which may be utilized by the student (610), parents (640), and teacher (620) to perform a number of specific school related activities, such as a presentation of course materials, the assignment, completion and return of homework assignments, the maintenance of school records, and digital communication between or among the student, teacher and parents. The portable device preferably includes biometric security system (655) which limit the access to both the portable device and data maintained in the portable device or in the school network.



2.	 Computer-aided method and system for guided teaching and learning	WO2007041968	2006-08-10	HAU KIT HAU KITTY*	2007-04-19	2007-04-19
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The present invention is a computer aided method and system for guided teaching and learning with the aid of an optional communication device, comprising the steps of: (a) presenting a question to the student at a student display; (b) receiving answer from the teacher at the teacher workstation, wherein the answer is received by the teacher from the student or directly from the students remotely; (c) sharing the answer submitted on at least one student displayed) determining whether the answer is correct; (e) presenting feedback to the answer at all student displays or workstations; (f) receiving input from the teacher at the teacher workstation for the teacher to give further information related to the question on student display; and (g) presenting information using a plurality of styles and stimuli corresponding to the input from the teacher or student on the student display.



3.

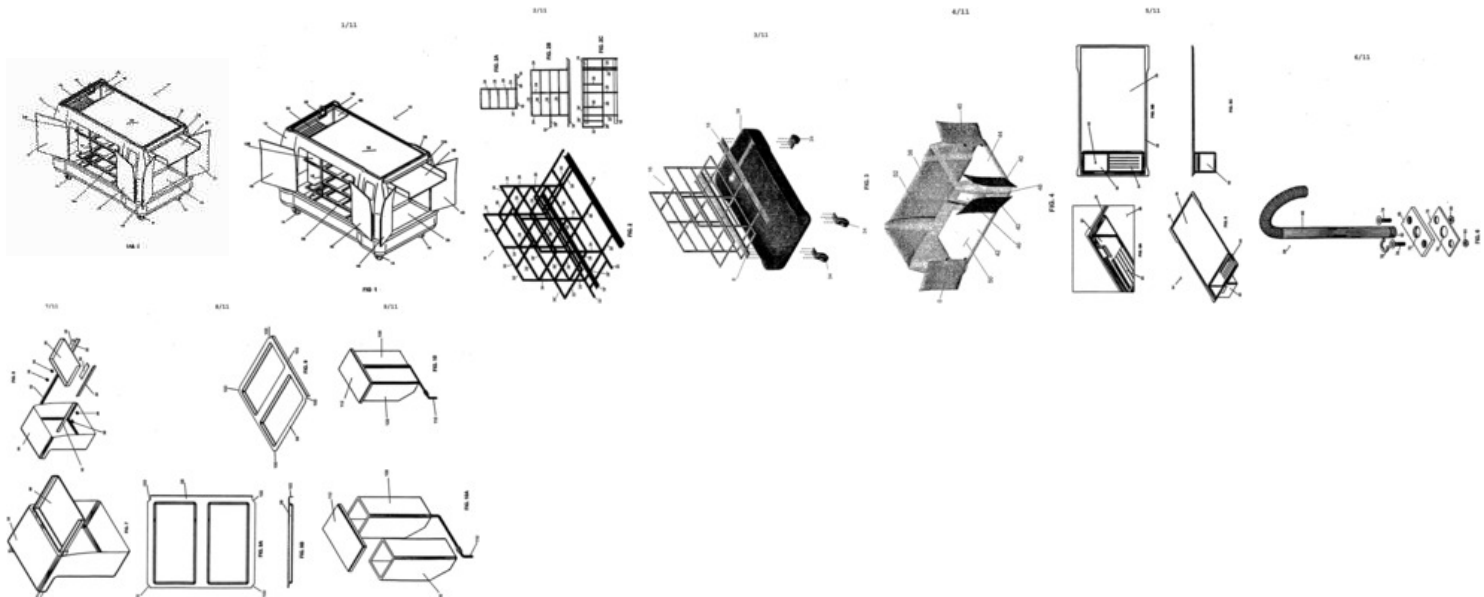
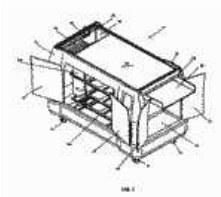
Movable system for laboratory procedures

MX2008010408

2008-08-13

DEDUTEL EXPORTACIONES & IMP AC* 2010-02-15 2010-02-15

The present invention relates to a **movable system for laboratory procedures** that comprises a wheeled cabinet, a metal chassis, a hydraulic system, a control system and a data-acquisition system, wherein said cabinet has an exterior configuration that, by means of curves, strengthens the robustness of the structure thereof such that the entire force loaded on a sink of the hydraulic system arranged in the upper part of the cabinet causes the structure thereof to function under tension; wherein said metal chassis is independent of the cabinet such that impacts received by the cabinet are not absorbed thereby; said control system is an interchangeable modular control system; and said data-acquisition system is a digital data-acquisition system.



4.

Mobile modular laboratory for electricity and electronics teaching

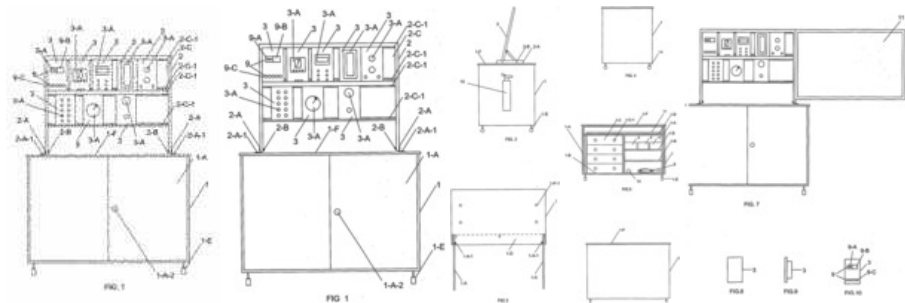
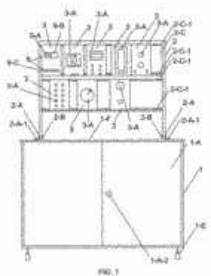
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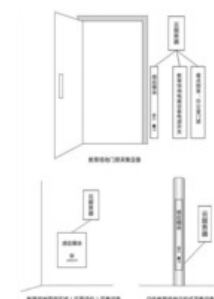
2008-11-28

ADUR RENATO GUIMARAES*
BUKTA HELIO PEDRO*
HELIO PEDRO BUKTA
RENATO GUIMARAES ADUR

2009-08-04 2009-08-04

Mobile modular laboratory for electricity and electronics teaching, the present invention refers to a **Mobile Modular Laboratory** consisting of cabinets (1), easel (2), modules (3), measurement and control apparatus (4), support tools (5), personal protection equipments (7), extension cord (8), feeding and electrical protection module (9), fire extinguisher (10) and blackboard (11), which intends to assist the training process and development on electrotechnic and electronics areas, improving professionals, preparing them to their insertion in the labor market. The equipment has advantages such as being specific and containing items described on the attached books, being one hundred percent usable on disciplines of technical courses, of including books and personal protection equipment (PPE), collective protection equipment (CPE) and first aid material that come with the product, of being modular, meeting the needs of all areas of electronics, of being light and of easy transportation, handling, assembly and storage.



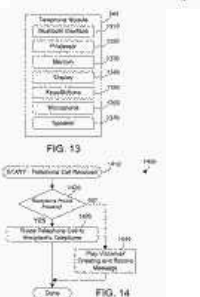
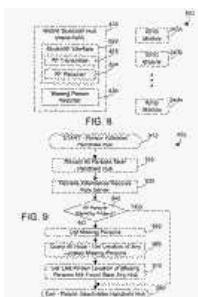


2003-10-23 2003-10-23

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graph LR
    SRM[Speech Recognition Module 100] --> DBI[Database Interface 200]
    DBI --> DB[Database 210]
    DB --> VOC[VOC]
    VOC --> VM[Vocabulary Module 220]
    VM --> SRM2[Speech Recognition Module 230]
    SRM2 --> DB
  
```

The diagram illustrates the system architecture. A 'Speech Recognition Module' (100) sends data to a 'Database Interface' (200). This interface connects to a 'Database' (210) containing 'Speech Recognition Rule #1', 'Speech Recognition Rule #2', 'Speech Recognition Rule #N', and a 'Grammar Database'. The 'Database' is linked to a 'VOC' (Vocabulary) block, which is further connected to a 'Vocabulary Module' (220). The 'Vocabulary Module' is connected to a 'Speech Recognition Module' (230), which is connected to a 'Speech Recognition Rule #1', 'Speech Recognition Rule #2', 'Speech Recognition Rule #N', and a 'Grammar Database'.



MCMEd is an institutional level Business Method claim for a new design of the structure and processes of learning to facilitate mass production/customization of High School and Higher Education. The present education system operates in shop-mode, in which the single teacher is in charge of the complete cycle of education. No technology so far, including on-line and distant education has changed the shop-mode of the learning process. MCMEd is a large-scale distributed business method that offers education in a customizable hybrid mode: online and in class in flexible combinations that maximize student's actual learning outcomes. In MCMEd design, MCMEd Central consolidates, coordinates, and computerizes the repetitive and duplicated activities, saving magnitudes, while producing higher and consistent quality content, exams, and grading. MCMEd further reduces duplication by adapting a modularized-structure of knowledge. MCMEd affiliated schools are outlets which can keep students on-course to maximize their learning potential.

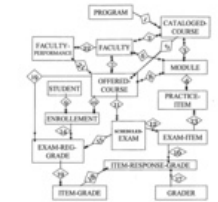


Figure 12. MCMEd's Data-Infrastructure

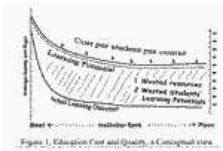


Figure 1. Education Cost and Quality, a Conceptual view



Figure 3. 3D Overview of Product Space

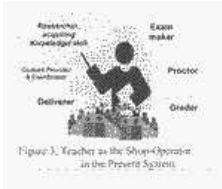


Figure 3. Teacher as the Shop-Operator in the Private System



Figure 4. Organizational Structure of MCMEd

Figure 12. MCMEd's Data-Infrastructure

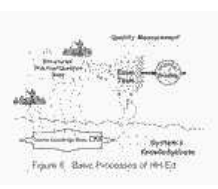
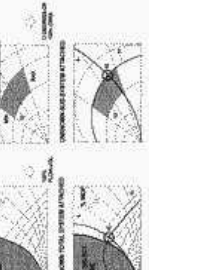
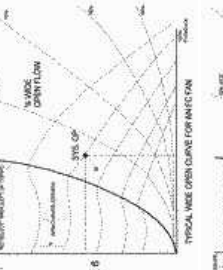
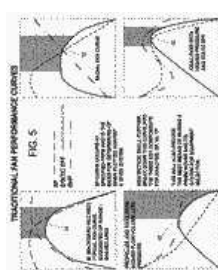
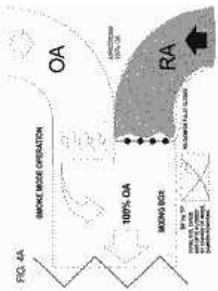
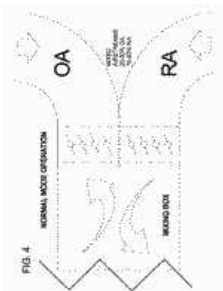
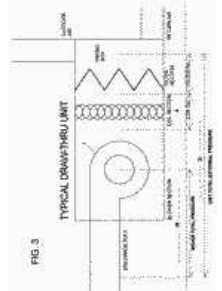
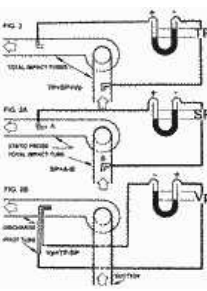
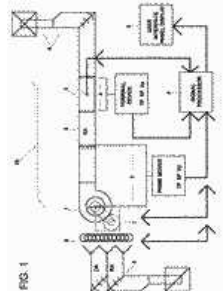
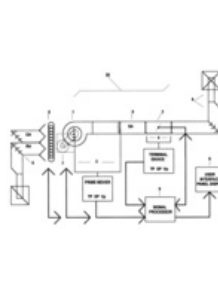
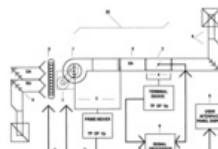
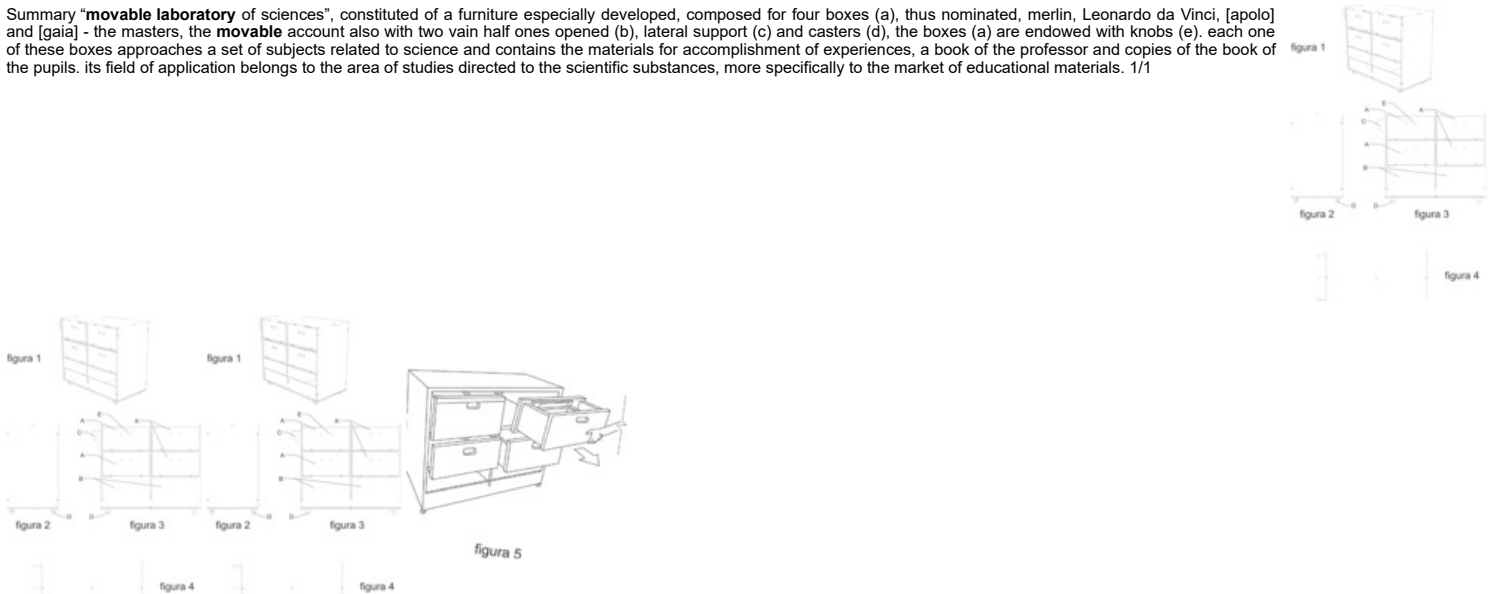


Figure 6. Basic Processes of MCMEd

The described method and apparatus pertains namely to the HVAC (Heating, Ventilating, and Air Conditioning) industry, though its many functions extend into any and all forms of air-fluid movement, metering, distribution, and containment. Essentially, the scope of operation of the method and apparatus encompasses all forms of scientific and engineering measurement dealing with fluid dynamics, fluid statics, fluid mechanics, thermal dynamics, and mechanical engineering as they pertain to precise, articulated control of air-fluid distribution and delivery. The described method and apparatus offers complete, comprehensive, and correct utilization of air-fluid movers and terminal devices under unique sensor logic control, from initial lab testing stages through to equipment cataloging, selection, design and construction of any and all air-fluid distribution systems in entirety, whereas previously there was no such cohesive, total and terminal method of control for these systems or their components.



Summary "movable laboratory of sciences", constituted of a furniture especially developed, composed for four boxes (a), thus nominated, merlin, Leonardo da Vinci, [apolo] and [gaia] - the masters, the **movable** account also with two vain half ones opened (b), lateral support (c) and casters (d), the boxes (a) are endowed with knobs (e). each one of these boxes approaches a set of subjects related to science and contains the materials for accomplishment of experiences, a book of the professor and copies of the book of the pupils. its field of application belongs to the area of studies directed to the scientific substances, more specifically to the market of educational materials. 1/1



10.

Lift table that general multi -functional computer room of teachers and students and qi nei set up

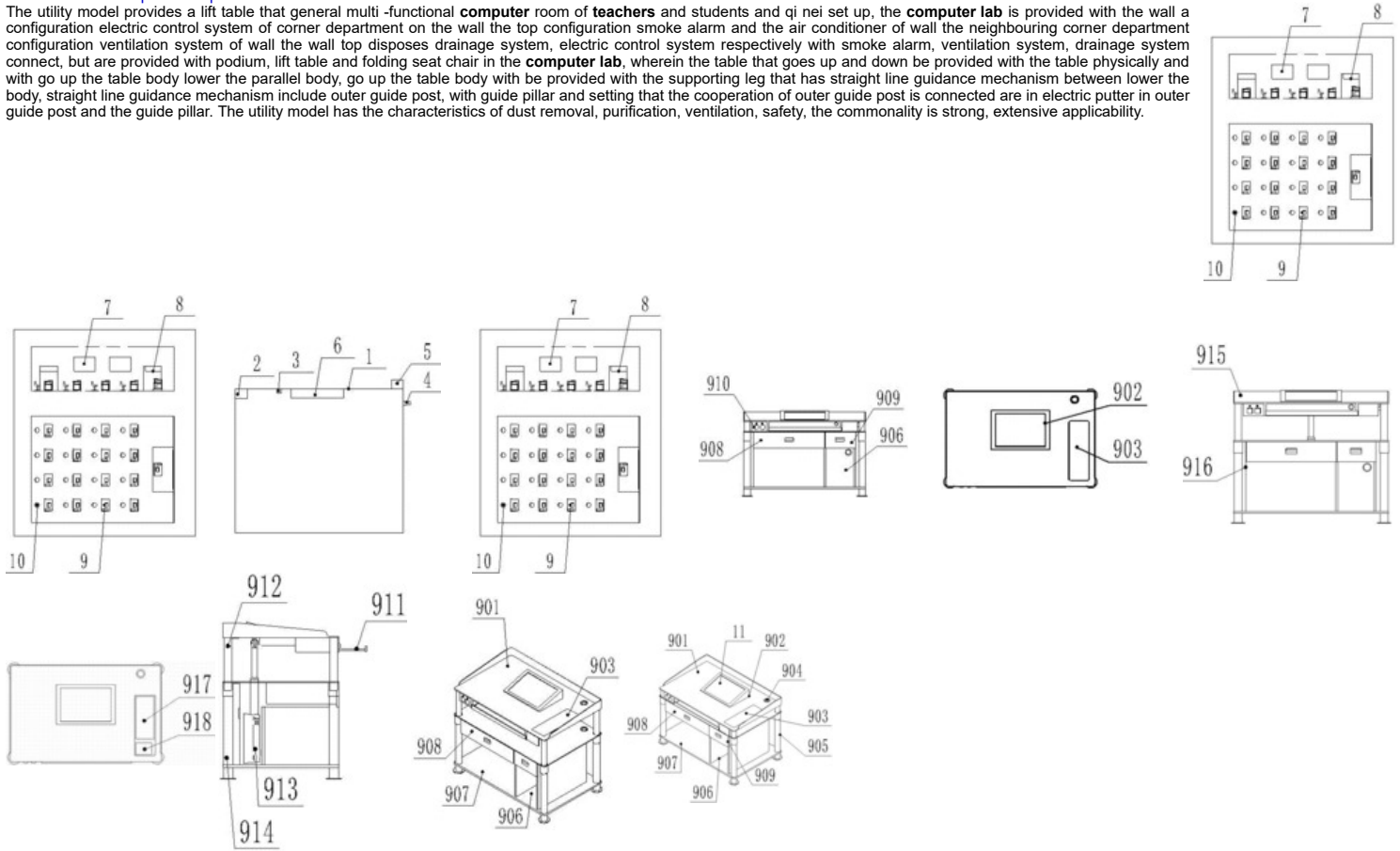
CN206400321

2017-01-11

ZHENGZHOU BOXIN INTELLECTUAL PROPERTY*

2017-08-11 2017-08-11

The utility model provides a lift table that general multi -functional **computer** room of **teachers** and students and qi nei set up, the **computer lab** is provided with the wall a configuration electric control system of corner department on the wall the top configuration smoke alarm and the air conditioner of wall the neighbouring corner department configuration ventilation system of wall the wall top disposes drainage system, electric control system respectively with smoke alarm, ventilation system, drainage system connect, but are provided with podium, lift table and folding seat chair in the **computer lab**, wherein the table that goes up and down be provided with the table physically and with go up the table body lower the parallel body, go up the table body with be provided with the supporting leg that has straight line guidance mechanism between lower the body, straight line guidance mechanism include outer guide post, with guide pillar and setting that the cooperation of outer guide post is connected are in electric putter in outer guide post and the guide pillar. The utility model has the characteristics of dust removal, purification, ventilation, safety, the commonality is strong, extensive applicability.



11.

Biological laboratory teacher's power primary console

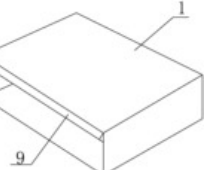
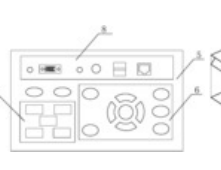
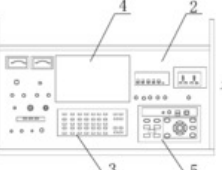
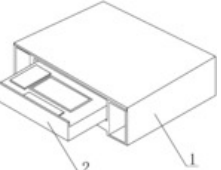
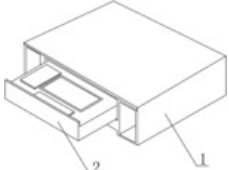
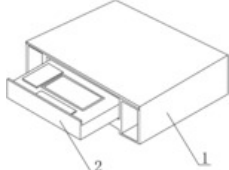
CN204990807

2015-09-25

CHONGQING ZHONGZUN TECHNOLOGY DEVELOPMENT*

2016-01-20 2016-01-20

The utility model provides a biological **laboratory teacher's** power primary console, workstation and control cabinet including sliding connection, the border of workstation is equipped with bordures, the last surface mosaic of control cabinet is connected with display screen, keyboard, multi-media central control system panel. The utility model discloses a can be dustproof, waterproof in the realization, can effectively realize protecting electrical component on the power primary console to guarantee its service precision and improve life. Display screen, keyboard, the integrated design of multi-media central control system panel, the structure is pleasing to the eye, the saving space, also makes things convenient for the **teacher** to observe and operate, reduces **teaching** work intensity, the design of multi-media central control system panel is convenient for the **teacher** and is designed experiment of classroom **teaching** demonstration nature and the experiment of student's operability, bound design, simple structure, processing is convenient, combines firmly beauty and practicability.



12.

Mobile teaching system

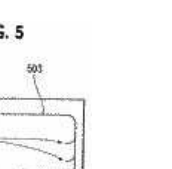
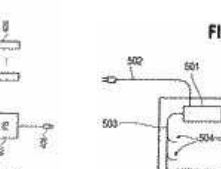
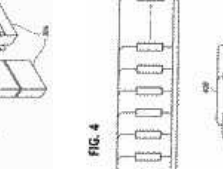
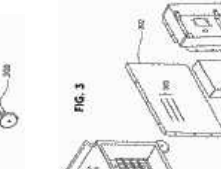
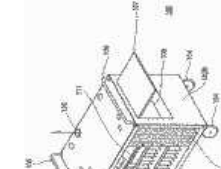
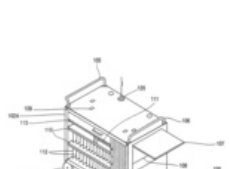
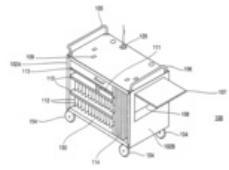
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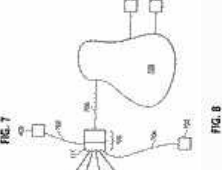
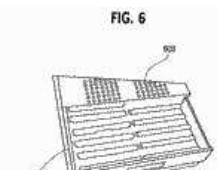
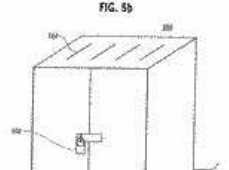
2001-07-31

EARTHWALK COMMUNICATION* VANDERLIP ROBERT G.

2003-02-06 2003-02-06

A **mobile teaching** system is disclosed which allows the use of personal computing devices in a learning environment. A plurality of **portable** computers may communicate with a **portable** network center to undergo lesson plans, testing, and other educational tasks. The **portable** computers may be stored in a **mobile** storage unit that may also serve as a network communications center, and may also provide power connections for the computers. The computers may include removable, rechargeable batteries, which may be recharged at the storage unit.





13.

Auxiliary system and method thereof of laboratory teaching

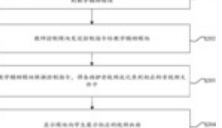
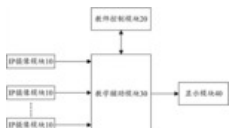
CN107564350

2016-07-01

BEIJING ITSYNCTECHNOLOGY* RDFS CHAOYANG SCHOOL*

2018-01-09 2018-01-09

The invention discloses an auxiliary system of **laboratory teaching**. The system comprises N IP shooting modules, a **teacher** control module, a **teaching** auxiliary module and a display module. At least one IP shooting module shoots a **teaching** experiment bench and other IP shooting modules shoot all groups of student experiment benches respectively and acquire and code audios and videos of experiment processes of the **teacher** and all groups of students into IP audio/video flows and transmit the IP audio-video flows to the **teaching** auxiliary module. The **teacher** control module is used for sending a control instruction to the **teaching** auxiliary module. The **teacher** supervises and watching video frames and carries out corresponding operation through the **teacher** control module. The **teaching** auxiliary module is used for recording all paths of IP audio-video flows to corresponding audio-video files according to the control instruction. The display module is used for displaying corresponding video frames to the students. The invention also discloses an auxiliary method of the **laboratory teaching**. According to the invention, students are allowed to clearly watch experiment demonstration details of the **teacher**; learning efficiency is improved; it is convenient for the **teacher** to call videos to carry out **teaching**; and **laboratory teaching** is facilitated.



14. Computerized system and method for teaching, learning, and assessing step by step solutions to STEM problems

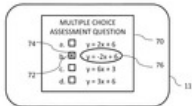
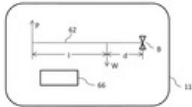
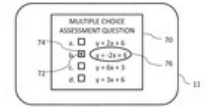
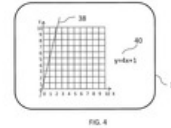
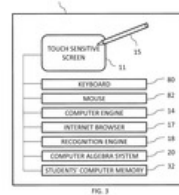
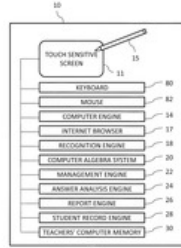
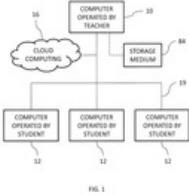
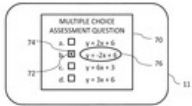
US2014162238

2013-12-10

FLUIDITY SOFTWARE*

2014-06-12 2014-06-12

An online system provides for the **teaching** and learning of step by step solutions to STEM problems. The system comprises at least one **tablet computer** linked to at least one **computer** readable storage medium by a communication network. The **computer** includes an input device and a touch sensitive screen for receiving and displaying handwritten input. A system user inputs the **computer** with the steps of a step by step solution to a STEM problem by handwriting math expressions and sketches on the touch sensitive screen. The system evaluates and automatically color codes each step in accordance with a color coding protocol stored in the **computer** readable storage medium as each step is entered into the system. The color coding provides visual feedback which identifies correct steps, erroneous steps, and intermediate steps in the solution. **Teachers** use the feedback when **teaching** STEM solutions and students use the feedback when they are practicing and assessing their own solutions.



$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

15. Professional development system and methodology for teachers

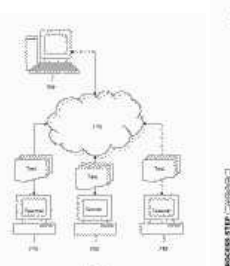
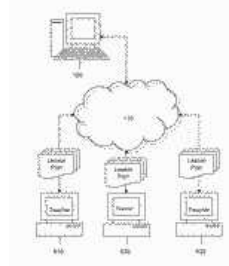
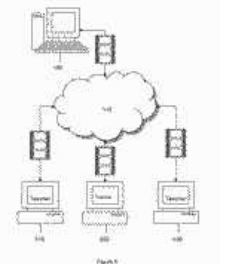
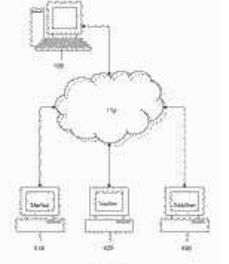
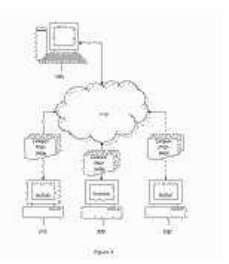
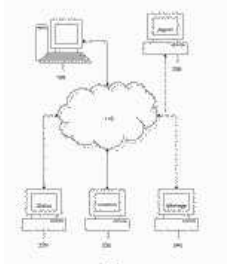
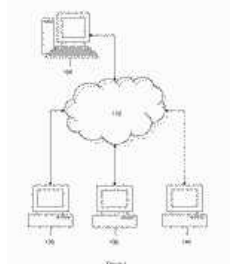
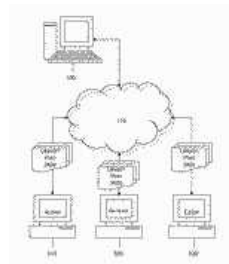
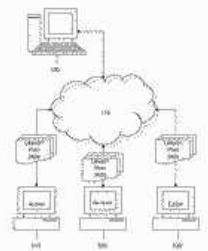
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TEACHING POINT*

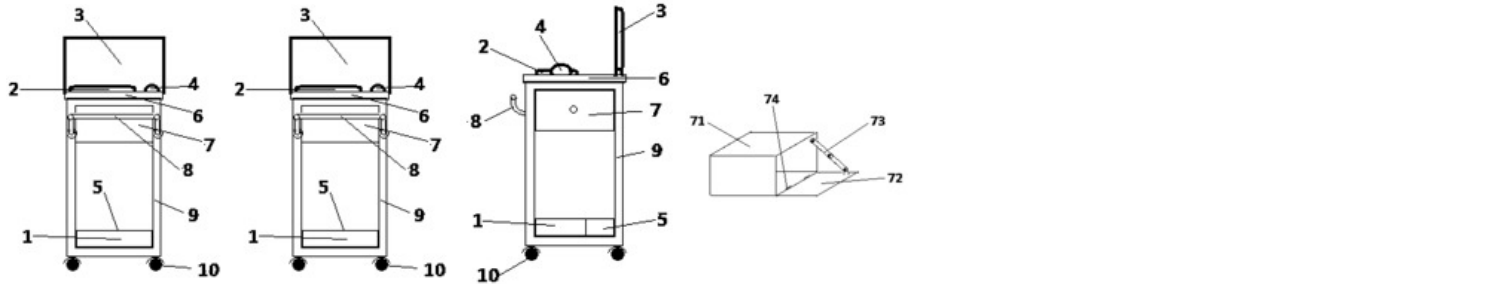
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A system and method for professional development for **teachers** which includes a structured framework for creating and providing online courses, qualification testing, instructional material, and mentoring **teacher** access, all subject specific to help **teachers** gain competency in their individualized **teaching** assignments and by extension help in the recruitment, development and retention of **teachers** leading to improved student achievement.



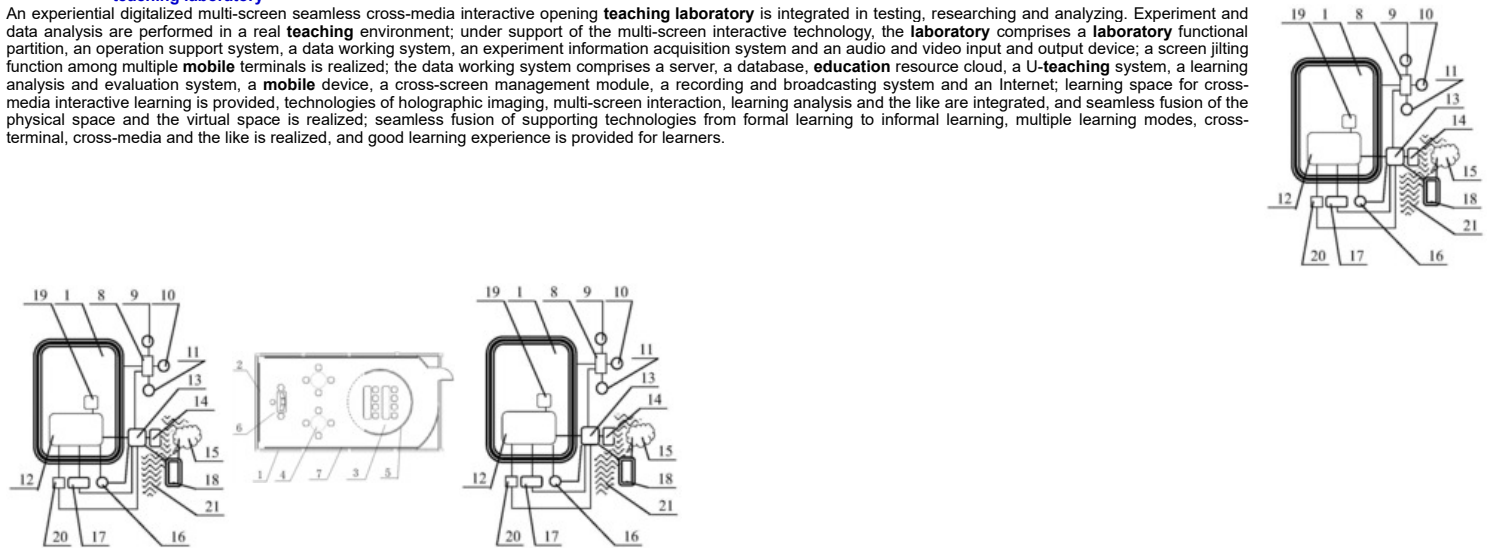
16. **Movable teaching worktable for experimental guidance teacher** CN105433594 2016-01-04 UNIVERSITY HUNAN CITY* 2016-03-30 2016-03-30

The invention discloses a **movable teaching worktable** for an experimental guidance **teacher** and relates to the technical field of **laboratory** equipment. The **movable teaching worktable** comprises a **computer** mainframe, a keyboard, a display, a mouse, a battery, a table face, a commonly-used tool box, a handle, supporting columns and universal wheels, wherein the **computer** mainframe and the battery are located at the bottom of the worktable, the commonly-used tool box is located under the table face, two of the universal wheels are provided with stop locks, the battery is a high-capacity lithium polymer battery, the box door of the commonly-used tool box is a right-side downwards-opened door, the lower edge of the box door is connected with a box body through a hinge, the box door is horizontal in an opening state, the opening state is controlled by a pull rod, and the pull rod is detachable. The **movable teaching worktable** for the experimental guidance **teacher** provides a **computer** and the commonly-used tool box and is convenient to use.



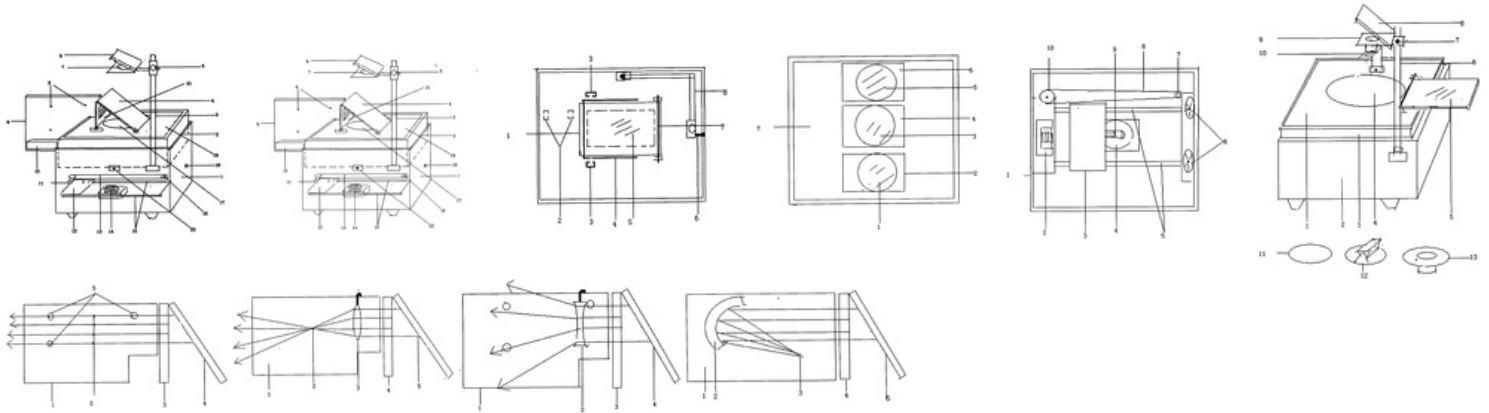
17. **Experiential digitalized multi-screen seamless cross-media interactive opening teaching laboratory** CN104575142 2015-01-29 SHANGHAI OPEN UNIVERSITY* 2015-04-29 2015-04-29

An experiential digitalized multi-screen seamless cross-media interactive opening **teaching laboratory** is integrated in testing, researching and analyzing. Experiment and data analysis are performed in a real **teaching** environment; under support of the multi-screen interactive technology, the **laboratory** comprises a **laboratory** functional partition, an operation support system, a data working system, an experiment information acquisition system and an audio and video input and output device; a screen jilting function among multiple **mobile** terminals is realized; the data working system comprises a server, a database, **education** resource cloud, a U-**teaching** system, a learning analysis and evaluation system, a **mobile** device, a cross-screen management module, a recording and broadcasting system and an Internet; learning space for cross-media interactive learning is provided, technologies of holographic imaging, multi-screen interaction, learning analysis and the like are integrated, and seamless fusion of the physical space and the virtual space is realized; seamless fusion of supporting technologies from formal learning to informal learning, multiple learning modes, cross-terminal, cross-media and the like is realized, and good learning experience is provided for learners.

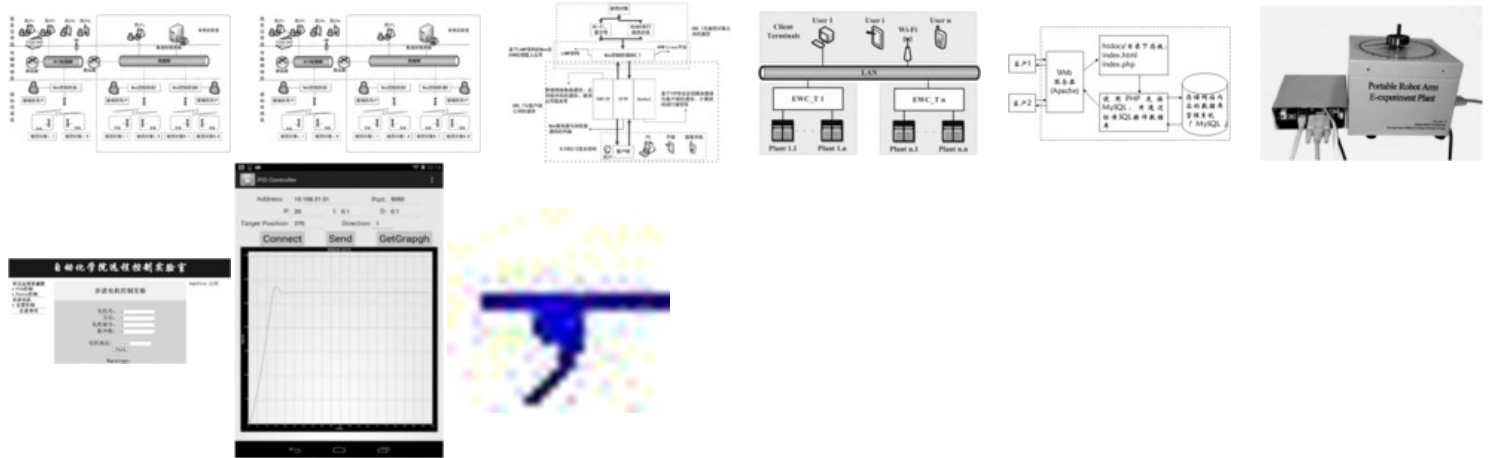


18. **Universal projector for teaching experiments** CN103187000 2011-12-29 GUO MAOQING 2013-07-03 2013-07-03

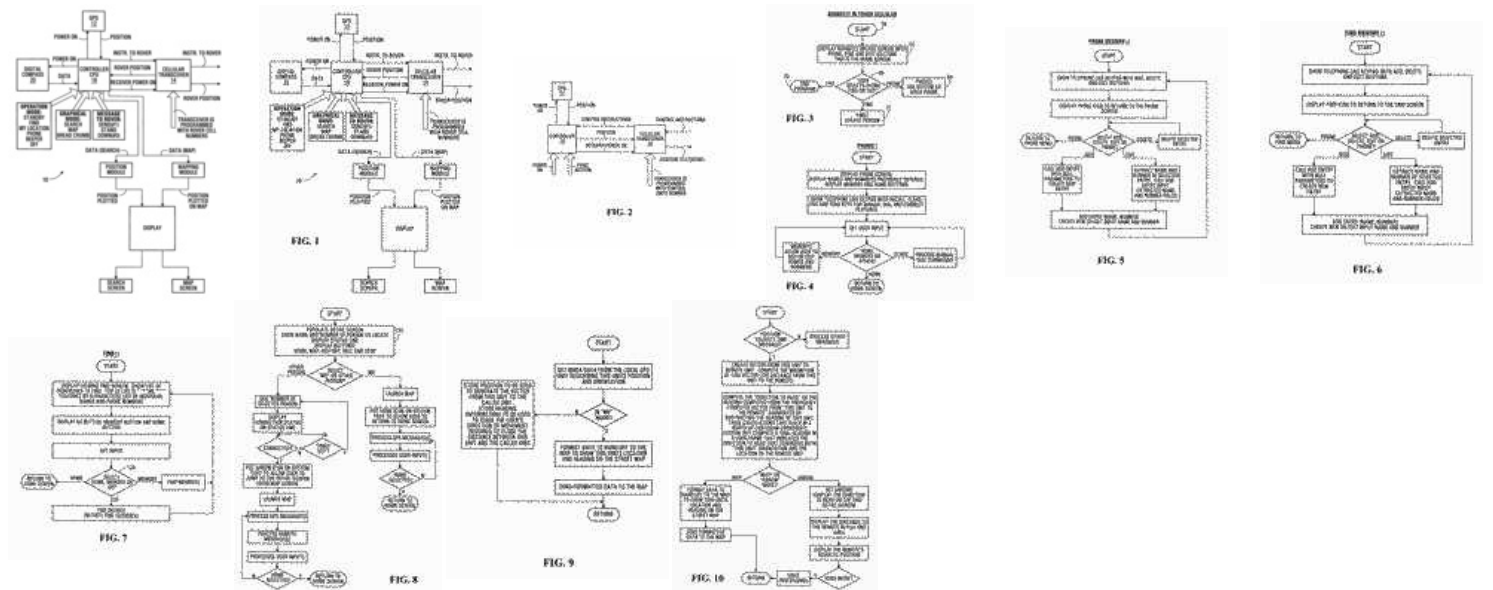
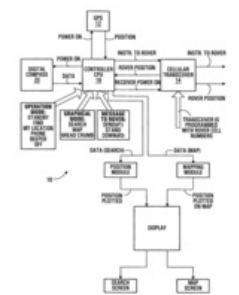
The invention relates to a **teaching** instrument, in particular relates to a universal **projector** for **teaching** experiments and is used for solving the problem that resource is seriously wasted after the existing **projector** is replaced by other multimedia. Eleven optical experiment functions are added besides the functions of the original **projector**. The universal **projector** for **teaching** experiments is used for demonstrating many optical experiments in primary **school** science and middle **school** physics and comprises a **projector** box, a lens lifting rod and a projection reflective mirror, wherein a screw condensing lens above the **projector** box is designed to be a lift type, and switching between parallel light and condensed light is realized by virtue of lifting of the screw condensing lens; and an optical path board and various optical tools are matched. Composition of light, a propagation route of the light and functions of various optical tools can be demonstrated, and micro projection can be carried out; The universal **projector** for **teaching** experiments is multipurpose and has strong functionality and interestingness; as the light of the **projector** is extremely strong and an automatic light shielding plate assembly is arranged in the **projector** box, the demonstration effect is visual, vivid and interesting. Thus, the existing optical instrument can not catch up the universal **projector** for **teaching** experiments, and the universal **projector** for **teaching** experiments has good popularization value and use value.



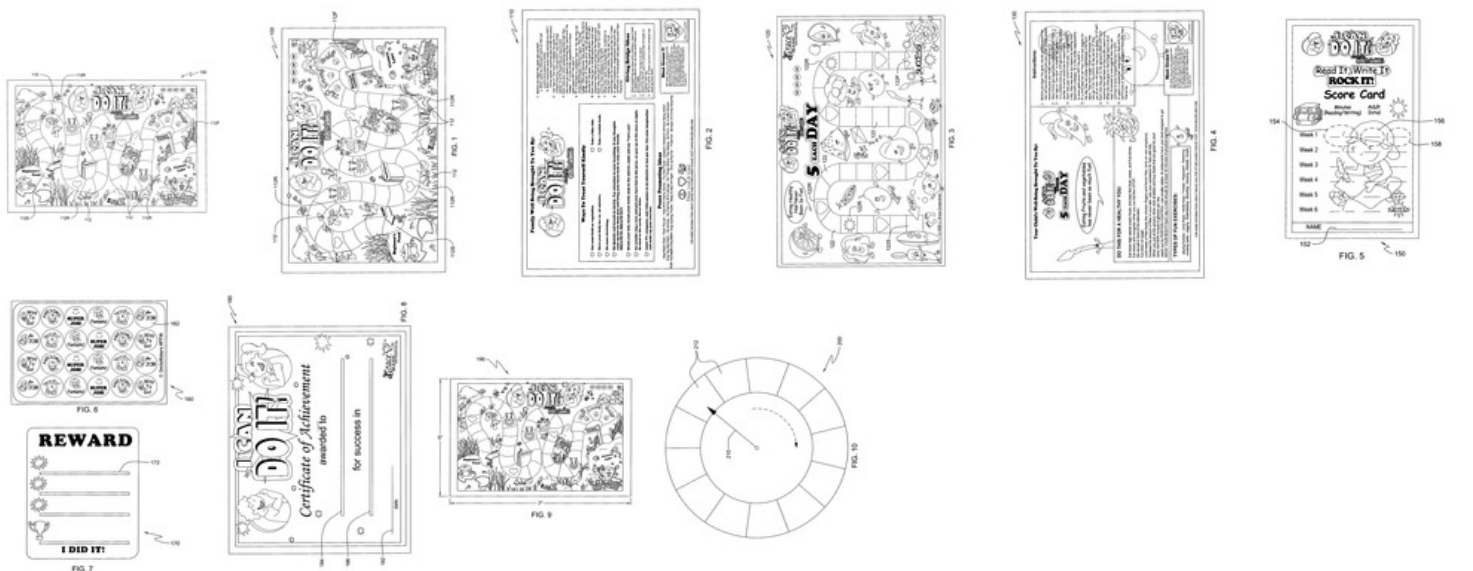
An Internet of things **mobile E-Laboratory** platform of an embedded Web control terminal belongs to the Internet of things and intelligent **teaching** technology field. A Web framework of Linux+Apache+MySQL+PHP and a B/S and C/S mixing structure are adopted. A LAMP is transplanted to an ARM processor. Based on an Android operation system, an APP is exploited. A C/S model communication mode and an AChartEngine graphic base are adopted and a user is allowed to carry out a "mobile experiment" under a wireless network environment. In the invention, "in-class and out-class integration **teaching**" is realized, and limited **laboratory** resources are timely shared to more people in need so that the **E-Laboratory** platform possesses characteristics of low power consumption, low cost and good portability; network control of various kinds of experiment apparatuses can be realized; and in addition, updating, maintenance and usage are convenient, and a utilization rate of the **laboratory** resources is increased.



A **mobile** controller unit (200) has a radio positioning system (204) and a two-way communication system (202) and a rover unit (214) also has a radio positioning system (218) and a two-way radio communication system (216). The controller unit (200) can query the rover unit (214) to send its location data so that the rover unit can be located and if desired, found, such as in the case of a lost child or items. Relative position between the controller and the rover can be displayed (208) on the controller along with an arrow showing where the rover is, as well as how fast it is **moving**, a track of its **movement** and other data. The system can also operate in conjunction with a network system (212) that has a PDE and an application server (210) that perform some of the communications and calculation functions.



A theme-based goal achievement game for modifying a student's themed behavior in cooperation with **teacher** input at both home and at **school** includes a theme-based gameboard for display in the student's home configured on a front side with a contiguous theme-based path, the path having a plurality of positions representative of completion of theme-defined tasks, a place marker for marking the student's instant position reflecting the student's cumulative progress traversing the theme-based path and a set of instructions for educating both the home and the **school teacher** on the themed behavior. The student is presented with pre-defined theme-based goals by the home or **school teacher**.



22.	System and method for remote-access virtual-lab environment	US2004121299	2002-12-20	EDS - ELECTRONIC DATA SYSTEMS HEWLETT PACKARD*	2004-06-24	2004-06-24
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A system, method, and **computer** program product for a remotely accessible, on-line virtual-system **education lab**. In this embodiment, students can connect with the **lab** (100) server (110) from any client system connected (130), directly or indirectly, with a common network (120), using a conventional web browser or other thin client. When the client connects (230), the server will create a virtual **lab computer** system which the user can operate and manipulate through the client system (130), as if he were working at a conventional **lab computer** system. The preferred embodiment allows the user to save the state of the **lab** (250) at any time, to resume later, and will load specific system states on the virtual **lab computer** system (225) according to the user's identity and selections.

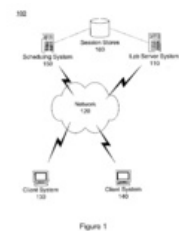


Figure 5

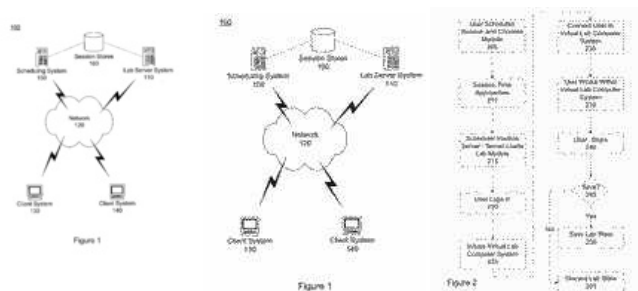


Figure 1

Figure 1

Figure 2

23.	School education system based on wireless network	CN106097811	2016-08-22	HUANG GUANGMING	2016-11-09	2016-11-09
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The invention discloses a **school education** system based on a wireless network, comprising a **teacher-based teaching** control unit and a student-based wearable learning unit. The **teaching** control unit comprises a speaker module, a microphone terminal, an ADC conversion module, an ARM processor, a signal amplification module, an input interface module, and a radio-frequency transmitting module. The wearable learning unit comprises a radio-frequency receiving module, a signal decoding module, an ARM processor, an output interface module, a Bluetooth pairing module, a DAC conversion module, a miniature microphone, and an audio terminal. The **teaching** control unit and the wearable learning unit are wirelessly connected through the radio-frequency transmitting module and the radio-frequency receiving module. The **school education** system based on a wireless network of the invention has the characteristics of good **teaching** effect, high flexibility, strong interactivity, and low cost.



24. Intelligent school laboratory management systemCN1027104712012-05-15CHONGQING SHUDE TECHNOLOGY*2012-10-032012-10-03

The invention discloses an intelligent **school laboratory** management system and application thereof. The intelligent **school laboratory** management system comprises an integrated circuit (IC) card, a total server, at least one **laboratory** client side in communication connection with the total server and at least one device terminal in communication connection with the **laboratory** client side. The IC card is used for identity proving. The total server contains all data analyzed, processed and received by a total processor, a network interface unit is arranged on the total processor, and a personal **computer** (PC) is externally connected onto the total processor for data input and management. The **laboratory** client side contains all data analyzed, processed and received by a second-level processor and uploads the data to the total server, and a second object control unit used for controlling use of all shared devices of a **laboratory** is arranged on the second-level processor. The device terminal contains all data analyzed, processed and received by a third-level processor and uploads the data to the **laboratory** client side, and a third object control unit used for controlling use of experimental facilities in the **laboratory** is arranged on the third-level processor.



25. Mathematical teaching aid device for placement of a high schoolCN2071009492017-01-062018-03-162018-03-16

The present utility model discloses a high **school** mathematics **teaching** aid with placement device, comprising a box body, the interior of the box body is provided with adjustment means, adjusting means comprises two bars, one end of the two rails are fixedly connected to one side of the inner wall box body, the other end of the two rails are **movably** connected with a pulley, a pulley fixedly mounted inside the box body and the back of the output shaft of the servo motor is fixedly connected, through a surface of the belt drive connection two pulleys, one end of one side of the conveyor belt is fixedly connected to the connecting plate, the lumen of the box body is fixedly mounted a limited lances. This high **school** mathematics **teaching** aid with placement of the device, to facilitate placement, space saving, high **school** mathematics **teachers teaching** tools can be hung on a hook or placement of the cartridge is placed in the interior of the plate, through adjusting means so that the suspending plate to rise, reaching a space-saving effect, it need only be placed in the classroom **teachers teaching** aid math may be, for each class are avoided and take out, the **teacher's teaching** operation is facilitated.

