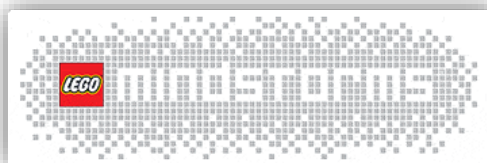


Robotics Education

Veria Central Public Library



What about Robotics



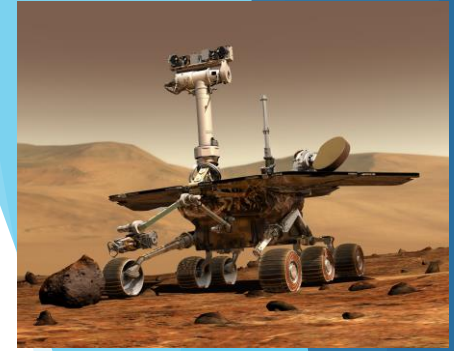
- ▶ Tallos was the 1st Robotic creation in Greek Mythology. Made by Hephaestus to protect Crete island.
- ▶ Isaak Asimov was the famous science fiction writer with ROBOT SERIES
- ▶ He also has define the 3 basic laws of robotics
 - ▶ A robot may not injure a human being or, through inaction, allow a human being to come to harm.
 - ▶ A robot must obey the orders given to it by human beings, except where such orders would conflict with the First Law.
 - ▶ A robot must protect its own existence as long as such protection does not conflict with the First or Second Laws.



Why humans need robots

- ▶ To do repetitive tasks that want accuracy and speed
- ▶ To do dangerous work

For sure robots are not to do homeworks !!!



What about robots in Veria Library

- ▶ Veria Central Public Library has creativity workshops on Robotics since 2008
- ▶ There are 2 kind of workshops:
 - ▶ For kids 6-11 using Lego Wedo packs
 - ▶ For Kids 12+ Using Lego Mindstorms NXT



Lego Wedo Workshops

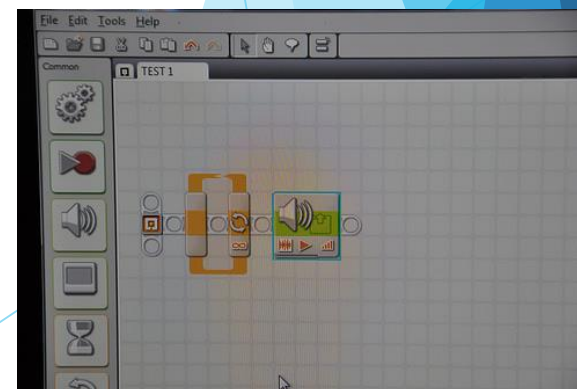
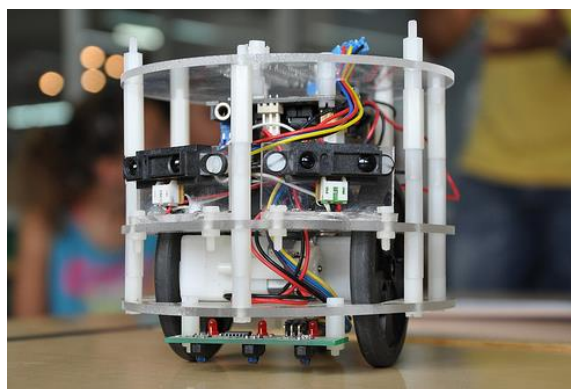
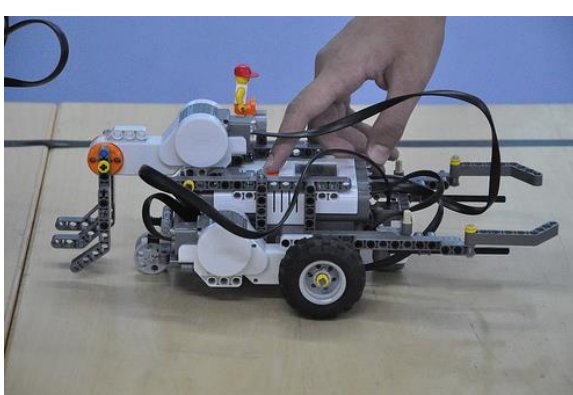
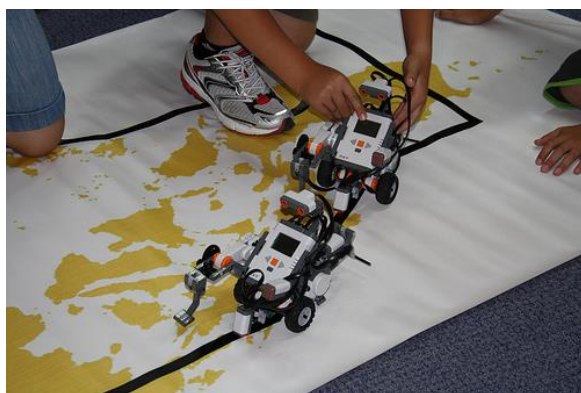
- ▶ This is a 1 ½ hour workshop for 10 kids (2 kids each team)
- ▶ On this workshop kids are
 - ▶ Learning about robots
 - ▶ Creating their 1st robot using Lego Wedo
 - ▶ Programing that robot using Lego software with blocks



Lego Mindstorms NXT

- ▶ This is a LONG workshop. Kids are working for a week for 3 days a day.
- ▶ On this workshop 12 kids (3 kids on each team) are:
 - ▶ Learning about robots
 - ▶ Creating their 1st vehicle robot using Lego Mindstorms NXT
 - ▶ Learning how to program a robot using Lego NTX software
 - ▶ Practicing on more than 20 exercises
 - ▶ Creating there own projects





<http://www.flickr.com/photos/libver/collections/72157621826113287/>
<http://www.youtube.com/playlist?list=PLE2AC9B558128067D>

Facts & Figures

- ▶ Since 2008
 - ▶ More than 250 kids have attempt to Robotics Club
 - ▶ More than 450 kids have attempt to Robotics Workshop
 - ▶ More than 100 hours of Robotics workshops
 - ▶ More than 280 hours on Robotics clubs

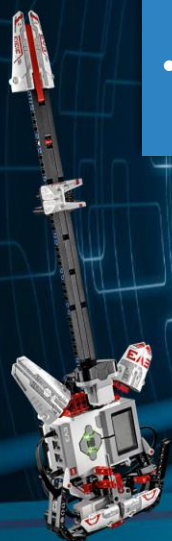
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The 12 bonus models
Designed by LEGO® MINDSTORMS® Community Partners

September 1st 2013

WHAT'S NEXT...?

- Veria library was the 1st in Greece that have (on August 2013) add to robot fleet the new Lego Mindstorms EV3.
- 8 Core packs of EV3 and 8 Extension pack for more buildings
- On new Clubs more than 16 kids will be able to attempt on each club.
- More options more creativity, fore fun!!!
- Veria Library is also creating a community website to engage all kids (and adults) who love robotics.



EL3CTRIC GUITAR
by Daniele Benedettelli



WACK3M
by Martijn Boogaarts



DINOR3X
by Lasse Stenbæk Lauesen



RAC3 TRUCK
by Laurens Valk



MR-B3AM
by Kenneth Ravnshøj Madsen



KRA3
by Marc-André Bazergui



ROB000Z3R
by Mark Crosbie



EV3GAME
by Ricardo Oliveira



EV304
by Vassilis Chryssanthakopoulos



BOBB3E
by Kenneth Ravnshøj Madsen



BANNER PRINT3R
by Ralph Hempel



EV3MEG
by Martijn Boogaarts

Useful Links

- ▶ <http://en.wikipedia.org/wiki/Talos>
- ▶ http://en.wikipedia.org/wiki/Isaac_asimov
- ▶ <http://en.wikipedia.org/wiki/Robotics>
- ▶ http://en.wikipedia.org/wiki/Laws_of_robotics
- ▶ http://en.wikipedia.org/wiki/Lego_Mindstorms_NXT
- ▶ http://en.wikipedia.org/wiki/Lego_Mindstorms_EV3
- ▶ <http://education.lego.com/en-us/preschool-and-school/secondary/mindstorms-education-ev3>
- ▶ <http://education.lego.com/en-us/lego-education-product-database/wedo/9585-lego-education-wedo-resource-set>
- ▶ <http://education.lego.com/en-us/preschool-and-school/upper-primary/8plus-mindstorms-education>

