




OPEN SOURCE HARDWARE

Open Source Community CET, Trivandrum

July 24, 2015

open hardware

DEFINITION

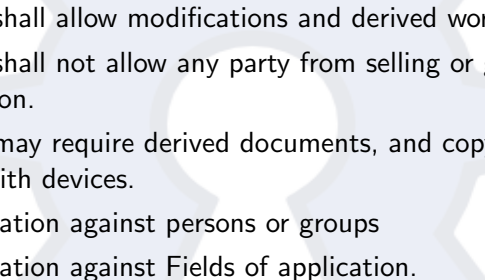
- 
- Design is made publicly available.
 - Any one can study, distribute, make.
 - Use readily available components and materials, standard processes, open infrastructure, unrestricted content and open source design tools.

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CRITERIA


- The hardware must be released with documentation including design files in the preferred format for making changes
- The documentation must clearly specify which part is being released under the license.
- If design requires software to operate properly, then the necessary software is released under OS license.

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- The license shall allow modifications and derived works.
 - The license shall not allow any party from selling or giving away the documentation.
 - The license may require derived documents, and copyright notices associated with devices.
 - No discrimination against persons or groups
 - No discrimination against Fields of application.

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ADVANTAGES

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- Re-use your designs for the projects and reduce development cost.
 - Time Saving since source files are readily available.
 - Good way to achieve greater penetration of the market.
 - Lower costs of marketing.

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STATISTICS

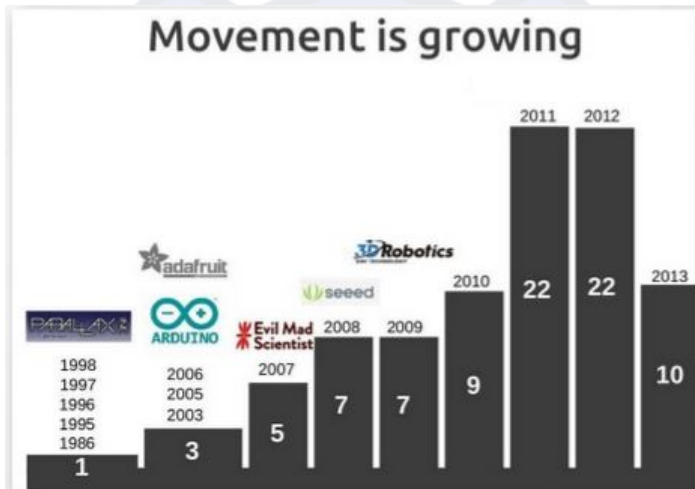


Figure : Open Hardware startups each Year

And the founders are

- Engineers 80 %



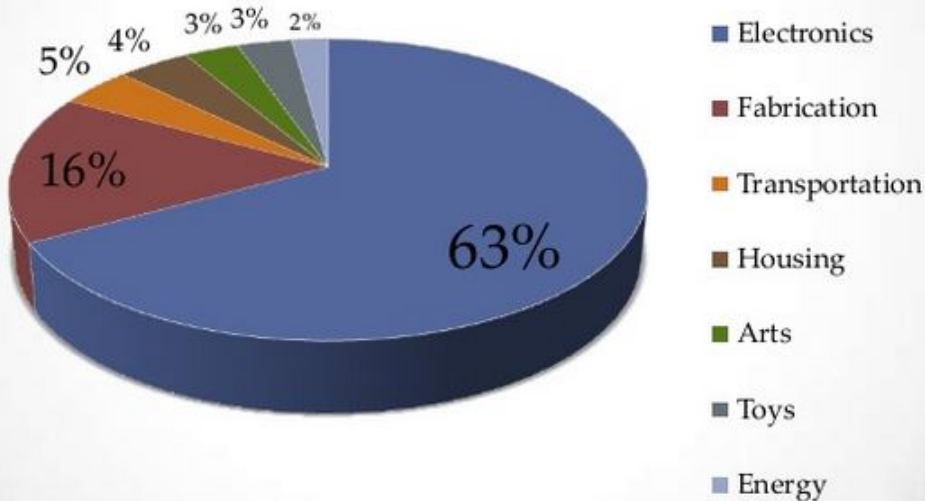
Teams
52 %




Solo entrepreneurs
47 %

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Markets of the Open Hardware Startup movement



ELECTRONICS

- 
- Arduino manufactured primarily by SmartProjects in Italy
 - Beagle Bone Black By Beagle Board Organization, A non profit organization
 - Open SPARC: First and only 64 bit OS microprocessor by SUN Microsystems

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AUTOMOTIVE



Figure : Tabby an OPEN SOURCE car

ROBOTICS



Figure : poppy an OPEN SOURCE robot

MORE and MORE

- ROBOTICS: OPEN ROV, AeroQuad
- MUSIC ELECTRONICS: Arduinome
- CAMERAS: Elphel-Eyesis4 π , LeanXcam
- MACHINE AND TOOLS: RepRap, A 3D printer, if you have got a REPERAP you can print a lot of useful stuffs and you can print another REPRAP for your friend., Lyman Filament extruder, ShapeOKo(CNC Milling machine)

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THANK YOU!!!

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