

Open Innovation Projects

Whole website's content in one document

Léonard Favre

Aug. 2013

Contents

1	Introduction	2
2	Project details	6
3	Product details	14
4	Institutional design and production	19

List of Tables

1	OIP entries treated by OSHWL (1/3)	2
2	OIP entries treated by OSHWL (2/3)	3
3	OIP entries treated by OSHWL (3/3)	4
4	other OSHWL projects categorized according to OIP's method	5
5	project details (1/2) of OIP entries treated by OSHWL (1/3)	7
6	project details (2/2) of OIP entries treated by OSHWL (1/3)	8
7	project details (1/2) of OIP entries treated by OSHWL (2/3)	9
8	project details (2/2) of OIP entries treated by OSHWL (2/3)	10
9	project details (1/2) of OIP entries treated by OSHWL (3/3)	11
10	project details (2/2) of OIP entries treated by OSHWL (3/3)	12
11	project details (1/2) of OSHWL projects not listed by OIP	13
12	project details (2/2) of OSHWL projects not listed by OIP	13
13	product details of OIP entries treated by OSHWL (1/3)	15
14	product details of OIP entries treated by OSHWL (2/3)	16
15	product details of OIP entries treated by OSHWL (3/3)	17
16	product details of OSHWL projects not listed by OIP	18
17	institutional design and production details (1/2) of OIP entries treated by OSHWL (1/3)	20
18	institutional design and production details (2/2) of OIP entries treated by OSHWL (1/3)	21
19	institutional design and production details (1/2) of OIP entries treated by OSHWL (2/3)	22
20	institutional design and production details (2/2) of OIP entries treated by OSHWL (2/3)	23
21	institutional design and production details (1/2) of OIP entries treated by OSHWL (3/3)	24
22	institutional design and production details (2/2) of OIP entries treated by OSHWL (3/3)	25
23	institutional design and production details (1/2) of OSHWL projects not listed by OIP	26
24	institutional design and production details (2/2) of OSHWL projects not listed by OIP	26

1 Introduction

open-innovation-projects.org (*OIP* in the text following) lists mostly OSHW projects and systematically categorizes them. Out of the ~150 listed entries, the following 109 retained our attention in the context of OSHWL:

title	OSHWL path	keywords from OIP
3G Stoves	energy/thermal/stoves	stove, 3g, woodgas, tlud, biomass
Absorber Roof	energy/solar/thermal	solar, thermal, collector, roof, intergrated
Abundant Water (AW)	water treatment	Clean Drinking Water, clay pot water filter, water, appropriate technology
Agua Clara	water treatment	water treatment, water, development, water purification
Akvo	water	water sanitation development
Always Innovating Touch Book (AITB)	electro-it-monit	
Arduino	electro-it-monit	-
Atari Coldfire	electro-it-monit	
Aurora OS Mixer (AOSM)	audio-visual	
AVR Butterfly Logger (AVR BL)	electro-it-monit	
AVR Butterfly MP3 (AVR BM)	audio-visual	
AX84 Firefly	audio-visual	
Balloon	electro-it-monit	
Beagle Board	electro-it-monit	
Ben NanoNote	electro-it-monit	
Biobricks	health	
BitsFromBytes (BFB)	robo-manuf	
Brewtopia	food/prepare	
Canuckle LEDlights (CLED)	energy/light	solar, energy, green, DIY, alternative, sun, heating, electricity, solar cooking, solar concentration, heliostat
Cfree OS	audio-visual/optics	Optics, Telescope, Renewable Thermoplastic Resin, Membrane Mirror, Renewable Thin Film Mirror, Cosmos
Optics (COSO)		
Chumby	electro-it-monit	
Contraptor	structures/assemblies	cnc, cartesian robot, construction set, arduino, 3d printer, g-code
Craftster	oshw-mgmt	
Crypto Stick	electro-it-monit	
Cubespawn	robo-manuf	open source, flexible manufacturing system, FMS, factory, robot
Daisy MP3	audio-visual	
diy_efi	transport/propulsion	
Elphel	audio-visual	
Ethernut	electro-it-monit	
Etherrape	electro-it-monit	
Fab Camera	audio-visual	
Fab@Home	robo-manuf	
Flash-Plaice	electro-it-monit	
Fnordlicht	audio-visual	
Formica	robo-manuf	

Tab. 1: OIP entries treated by OSHWL (1/3)

title	OSHWL path	keywords from OIP
Free Art Bureau	oshw-mgmt	
Free Beer	food/prepare	
Freeduino	electro-it-monit	
Gumstix	electro-it-monit	
HD Video Capture	audio-visual	
Hexayurt	structures/construction	
Im-FFeeder	food/grow	automatic, feeder, fish, pet, pond, aquarium
IP04 (4-Port IP-PBX)	electro-it-monit	
IP08 (8-Port IP-PBX)	electro-it-monit	
iRobot	robo-manuf	
K People	oshw-mgmt	knowledge worker
LED Stripe	audio-visual	
Linux omap	electro-it-monit	
Local Motors	transport/road/cars	
MakerBot	robo-manuf	
Mikrokopter	transport/aeronautics	
Milkymist	audio-visual	
MISA	audio-visual	
MyOpenRouter	electro-it-monit	
Neuros Link	audio-visual	
Neuros OSD	audio-visual	
Niftymitter	electro-it-monit	
oBiCo	transport/road/bicycle	
OMFootCtrl	electro-it-monit	
OLPC	electro-it-monit	
O. Architecture Network (OAN)	structures/construction	
O. Garments	robo-manuf/manuf/textile	
O. Moto X	transport/road	Race, motorcycle, ttxgp, electric
O. Pandora	audio-visual	
O. Prosthetics Project (OPP)	health	
OS Cookbook	food/prepare	
OS Ecology	oshw-mgmt	open source economy, efficient economy
OS Washing Machine (OSWM)	cleaning/laundry	

Tab. 2: OIP entries treated by OSHWL (2/3)

title	OSHWL path	keywords from OIP
O. Waterbike Project (OWbP)	transport/water	
OS BHKW	energy/thermal/cogen	
OpenBeacon	electro-it-monit	
OpenCola	food/prepare	
OpenEEG	health	
openenergymonitor	electro-it-monit	
openEyes	electro-it-monit	
OpenMini 650 Sailboat (OM650)	transport/water	
OpenMoko	electro-it-monit	
OpenPCD	electro-it-monit	
OpenRemote	electro-it-monit	
OpenServo	robo-manuf	
OpenSpace	oshw-mgmt	creativity brainstorming documentation
OpenSPARC	electro-it-monit	
OpenWrt	electro-it-monit	
OScar project	transport/road/cars	
PC Engines	electro-it-monit	
Rallylog	electro-it-monit	
Ravelry	robo-manuf/manuf/textile	
RepRap	robo-manuf	printer, 3d printer
RFID door opener	structures/assemblies/locks	
RiverSimple	transport/road	hydrogen, electric vehicle
RONJA	audio-visual/optics	
Sanguino	electro-it-monit	
Semitone Dimmers	audio-visual	
Solar Cooking Archive (SCA)	energy/solar/thermal	
solar tracking	energy/solar/tracking	
Spiffchorder	audio-visual	
SquidBee	electro-it-monit	
Stribe	audio-visual	
Stroblt Triggrr	audio-visual	
Thingiverse	robo-manuf	Designs
Traxmod	audio-visual	
zeroclock	electro-it-monit	
Zoybar	audio-visual	

Tab. 3: OIP entries treated by OSHWL (3/3)

We will also apply the same “standardized” categorization effort to the following OSHW(L) projects, not listed by OIP (table 4):

title	OSHWL path	keywords

Tab. 4: other OSHWL projects categorized according to OIP’s method

The following is the categorization itself (in tables making overview and comparison easy, as opposed to individual project sheets as is the case on open-innovation-projects.org), copied from OIP for the projects they list and complemented with the projects from table 4.

There are three groups of criteria:

- project details
- product details
- institutional design and production

2 Project details

First, a description of the categories in the table directly following.

project type

single project one or more specific product(s) is/are shown and/or developed

collection of projects overview over several different projects or product, e.g. OIP itself

development Status current stage of development according to the following:

- 1 planning/Virtual development - Ideas and digital dev. evolving
 - 2 prototyping started - First physical proto. assembled, testing phase
 - 3 first working proto. - Working proto. available, release to community, further dev. needed
 - 4 production stable - Fully functional product permanently available on market, further dev. possible
 - 5 mature - Final dev. stage reached, no further dev. necessary
- Inactive dev. stopped, no final product available

in case several products are being developed, the stage of the most advanced product is indicated.

community size approximate community size or number of users involved.

number of developers approximate number of active developers.

license and trademark

- whether the project is using an open license and of which type
- whether they have a registered trademark

country main location, i.e. home country of the project leader, the core team or the office location.

start year year in which the project was initiated.

project contact project contact person and/or address

intended audience target group of the project according to the following criteria:

end user everybody from school kids to your grandmother.

adv. end user product will target end users, but usage may require specific knowledge.

developer no intention to reach end users, high specific knowledge necessary.

other all other groups, for example educational purposes

Tables

title	entry type		dev. status	community size							developers							
	coll. of proj.	single proj.		1	2-5	6-10	11-100	101-500	501-1000	1001-5000	>5000	1	2-5	6-10	11-100	101-500	501-1000	>1000
3G Stoves	x		3								x	x						
Absorber Roof		x	3	x								x						
AW		x	3					x						x				
Agua Clara		x	5				x							x				
Akvo	x		4						x					x				
AITB																		
Arduino		x	5								x							
Atari Coldfire																		
AOSM																		
AVR BL																		
AVR BM																		
AX84 Firefly																		
Balloon																		
Beagle Board																		
Ben NanoNote																		
Biobricks																		
BFB																		
Brewtopia																		
CLED		x	3	x								x						
COSO	x		3		x								x					
Chumby																		
Contraptor		x	3		x							x						
Craftster	x		5								x							x
Crypto Stick																		
Cubespawn	x		3					x				x						
Daisy MP3																		
diy_efi	x		2				x							x				
Elphel																		
Ethernut																		
Etherrape																		
Fab Camera																		
Fab@Home		x	2					x						x				
Flash-Plaice																		
Fnordlicht																		
Formica																		

Tab. 5: project details (1/2) of OIP entries treated by OSHWL (1/3)

title	licence and TM							country	start year	contact	intended aud.			
	GPL, LGPL or similar copyleft license	BSD, MIT or similar permissive license	Creative Commons license	Creative Commons license	other open license	commercial license	no license				end user	advanced end user	developer	other
3G Stoves					x		x	IN	2008	Dr. N. Sai Bhaskar Reddy			x	
Absorber Roof						x		AUS	2007	Ben Speirs		x		
AW						x		AUS	2009	Sunny Forsyth			x	
Agua Clara			x					US	2005	Monroe Weber-Shirk	x			
Akvo	x		x					NL	2006	Mark Charmer				x
AITB														
Arduino	x		x				x	IT	2005			x		
Atari Coldfire														
AOSM														
AVR BL														
AVR BM														
AX84 Firefly														
Balloon														
Beagle Board														
Ben NanoNote														
Biobricks														
BFB														
Brewtopia														
CLED								CA	2008	Wayne				
COSO			x					AUS	2007	Ivan		x		
Chumby														
Contraptor	x		x					US	2007	albanetc.sr				
Craftster							x					x		
Crypto Stick														
Cubespawn					x			US	2009	James Jones	x			
Daisy MP3														
diy_efi	x							US	1994			x		
Elphel														
Ethernut														
Etherrape														
Fab Camera														
Fab@Home		x						US	2006			x		
Flash-Plaice														
Fnordlicht														
Formica														

Tab. 6: project details (2/2) of OIP entries treated by OSHWL (1/3)

title	entry type		dev. status	community size								developers							
	coll. of proj.	single proj.		1	2-5	6-10	11-100	101-500	501-1000	1001-5000	>5000	1	2-5	6-10	11-100	101-500	501-1000	>1000	
Free Art Bureau	x		4	x								x							
Free Beer																			
Freeduino																			
Gumstix																			
HD Video Capture																			
Hexayurt																			
Im-FFeeder	x		3	x								x							
IP04																			
IP08																			
iRobot																			
K People	x		2	x								x							
LED Stripe																			
Linux omap																			
Local Motors	x		2	x															
MakerBot																			
Mikrokopter																			
Milkymist																			
MISA																			
MyOpenRouter																			
Neuros Link																			
Neuros OSD																			
Niftymitter																			
oBiCo	x		2	x								x							
OMFootCtrl																			
OLPC																			
OAN	x		4	x								x							
O. Garments	x		1									x							
O. Moto X	x		1	x								x							
O. Pandora																			
OPP																			
OS Cookbook	x		3																
OS Ecology	x		3	x								x							
OSWM	x		2																

Tab. 7: project details (1/2) of OIP entries treated by OSHWL (2/3)

title	licence and TM							country	start year	contact	intended aud.			
	GPL, LGPL or similar copyleft license	BSD, MIT or similar permissive license	Creative Commons license	Creative Commons license	other open license	commercial license	no license	registered trademark			end user	advanced end user	developer	other
Free Art Bureau	x								F	2011	Mark Webster			x
Free Beer														
Freeduino														
Gumstix														
HD Video Capture														
Hexayurt														
Im-FFeeder	x								MX	2011	Juan Grez	x		
IP04														
IP08														
iRobot														
K People					x		x		IT	2009	Alessia Frittitta	x		
LED Stripe														
Linux omap														
Local Motors									US	2007		x	x	
MakerBot														
Mikrokopter														
Milkymist														
MISA														
MyOpenRouter														
Neuros Link														
Neuros OSD														
Niftymitter														
oBiCo							x		D	2007			x	
OMFootCtrl														
OLPC														
OAN			x						US	2006			x	
O. Garments							x		D	2008		x		
O. Moto X					x				E	2010				x
O. Pandora														
OPP														
OS Cookbook	x								US	2002		x		
OS Ecology			x						US	2004	Marcin Jakubowski			
OSWM							x			2008		x		

Tab. 8: project details (2/2) of OIP entries treated by OSHWL (2/3)

title	entry type		dev. status	community size								developers						
	coll. of proj.	single proj.		1	2-5	6-10	11-100	101-500	501-1000	1001-5000	>5000	1	2-5	6-10	11-100	101-500	501-1000	>1000
OWbP																		
OS BHKW			2					x										
OpenBeacon																		
OpenCola																		
OpenEEG																		
openenergymonitor																		
openEyes																		
OM650	x		1										x					
OpenMoko																		
OpenPCD																		
OpenRemote																		
OpenServo	x		3								x							
OpenSpace	x		3		x								x					
OpenSPARC																		
OpenWrt																		
OScar project																		
PC Engines																		
Rallylog																		
Ravelry	x		4							x								
RepRap		x	2				x								x			
RFID door opener																		
RiverSimple		x	2		2									x				
RONJA			4															
Sanguino																		
Semitone Dimmers																		
SCA		x	4							x								
solar tracking		x	3	x								x						
Spiffchorder																		
SquidBee																		
Stribe																		
Stroblt Trigg																		
Thingiverse	x		4															
Traxmod																		
zeroclock																		
Zoybar																		

Tab. 9: project details (1/2) of OIP entries treated by OSHWL (3/3)

title	GPL, LGPL or similar copyleft license BSD, MIT or similar permissive license Creative Commons license Creative Commons license other open license commercial license no license registered trademark	licence and TM	country	start year	contact	intended aud. end user advanced end user developer other
OWbP						
OS BHKW		x	D	2006		
OpenBeacon						
OpenCola						
OpenEEG						
openenergymonitor						
openEyes						
OM650		x	D	2000	Hans Zwakenberg	x
OpenMoko						
OpenPCD						
OpenRemote						
OpenServo	x					x
OpenSpace	x		US	2009	Labruno	x
OpenSPARC						
OpenWrt						
Oscar project						
PC Engines						
Rallylog						
Ravelry		x	US			x
RepRap	x		UK	2004		x
RFID door opener						
RiverSimple		x	UK	2008	Patrick	x
RONJA	x		CZ			x
Sanguino						
Semitone Dimmers						
SCA		x				x
solar tracking		x	CA	2008	Canuckle	
Spiffchorder						
SquidBee						
Stribe						
Stroblt Trigg						
Thingiverse		x		2008		x
Traxmod						
zeroclock						
Zoybar						

Tab. 10: project details (2/2) of OIP entries treated by OSHWL (3/3)

[illegible][illegible]

3 Product details

First, a description of the categories in the table directly following.

product innovativeness degree of innovativeness according to the following criteria:

- | | |
|---|--|
| 5 | radical innovation - a new technology that results in a new market infrastructure, e.g. an innovation which does not address a recognized demand but instead creates a demand previously unrecognized by the consumer |
| 4 | really new innovation - a really new product results in a market discontinuity or a technological discontinuity but will not incorporate both, e.g., new product lines, product line extensions with new technology, or new markets with existing technology |
| 3 | discontinuous innovations - new technologies that don't lead to discontinuity in existing markets |
| 2 | incremental innovations - products that provide new features, benefits, or improvements to the existing technology in the existing market |
| 1 | imitative innovations - imitative products are frequently new to the firm, but not new to the market |

product complexity degree of complexity for the developed product ranging between the following:

- | | |
|-----|--|
| 1 | low complexity, e.g. a simple wooden chair |
| ... | |
| 5 | high complexity, e.g. an aircraft or a nuclear power plant |

industry suitable industry from a list given by OIP.

Tables

title	innovativeness	complexity	industry													
			Energy and Utilities	Pharma and Healthcare	IT Hardware	Education and Research	Consumer Goods	Machinery	Automotive	Consumer Electronics	Construction	Media and Culture	Entertainment	Telecommunications	Food and Beverages	Other
3G Stoves	5	2	x													
Absorber Roof	3	3	x													
AW	4	2		x												
Agua Clara	2	4	x													
Akvo	4	3	x													
AITB																
Arduino	2	3			x											
Atari Coldfire																
AOSM																
AVR BL																
AVR M																
AX84 Firefly																
Balloon																
Beagle Board																
Ben NanoNote																
Biobricks																
BFB																
Brewtopia																
CLED	5	1	x													
COSO	5	3				x										
Chumby																
Contraptor	3	2				x										
Craftster	4	2						x								
Crypto Stick																
Cubespawn	2	4							x							
Daisy MP3																
diy_efi	2	2								x						
Elphel																
Ethernut																
Etherrape																
Fab Camera																
Fab@Home	4	4			x											
Flash-Plaice																
Fnordlicht																
Formica																

Tab. 13: product details of OIP entries treated by OSHWL (1/3)

title	innovativeness	complexity	industry											
			Energy and Utilities	Pharma and Healthcare	IT Hardware	Education and Research	Consumer Goods	Machinery	Automotive	Consumer Electronics	Construction	Media and Culture	Entertainment	Telecommunications
Free Art Bureau	4	3				x								
Free Beer														
Freeduino														
Gumstix														
HD Video Capture														
Hexayurt														
Im-FFeeder	2	2				x								
IP04														
IP08														
iRobot														
K People	2	2												x
LED Stripe														
Linux omap														
Local Motors	4	4							x					
MakerBot														
Mikrokopter														
Milkymist														
MISA														
MyOpenRouter														
Neuros Link														
Neuros OSD														
Niftymitter														
oBiCo	3	3								x				
OMFootCtrl														
OLPC														
OAN	5	3									x			
O. Garments	2	1				x								
O. Moto X	1	3							x					
O. Pandora														
OPP														
OS Cookbook	2	1										x		
OS Ecology	5	5						x						
OSWM	4	2						x						

Tab. 14: product details of OIP entries treated by OSHWL (2/3)

title	innovativeness	complexity	industry											
			Energy and Utilities	Pharma and Healthcare	IT Hardware	Education and Research	Consumer Goods	Machinery	Automotive	Consumer Electronics	Construction	Media and Culture	Entertainment	Telecommunications
OWbP														
OS BHKW	2	4	x											
OpenBeacon														
OpenCola														
OpenEEG														
openenergymonitor														
openEyes														
OM650	2	4											x	
OpenMoko														
OpenPCD														
OpenRemote														
OpenServo	4	4						x						
OpenSpace	2	2				x								
OpenSPARC														
OpenWrt														
OScar project														
PC Engines														
Rallylog														
Ravelry	3	1					x							
RepRap	5	4			x									
RFID door opener														
RiverSimple	3	5							x					
RONJA													x	
Sanguino														
Semitone Dimmers														
SCA														x
solar tracking	5	1	x											
Spiffchorder														
SquidBee														
Stribe														
Stroblt Triggr												x		
Thingiverse	5	3												
Traxmod														
zeroclock														
Zoybar														

Tab. 15: product details of OIP entries treated by OSHWL (3/3)

title	innovativeness	complexity	industry
			Energy and Utilities
			Pharma and Healthcare
			IT Hardware
			Education and Research
			Consumer Goods
			Machinery
			Automotive
			Consumer Electronics
			Construction
			Media and Culture
			Entertainment
			Telecommunications
			Food and Beverages
			Other

Tab. 16: product details of OSHWL projects not listed by OIP

4 Institutional design and production

First, a description of the categories in the table directly following.

contribution

user whether private persons or users are actively involved in the development.

commercial whether commercial companies are actively involved in the development.

research whether research institutions are actively involved in the development.

type of collaboration

collective development of...

one common product if a community is commonly developing one product.

several common products if a community is commonly developing several different products.

published knowledge...

with some coll. dev. if instructions or ideas are published and others make comments and suggestions.

without collective dev. if information is purely revealed.

activity activity level in the community or developer group...

1 low (up to one interaction per month on average)

2 medium

3 high (daily interaction)

community communication major communication channels used within the project community

face-to-face people tend to interact in person.

mailing lists at least one mailinglist is used frequently.

chat the community has at least one active chat.

board a board/discussion forum is used.

other other communication channels as wikis, blogs, etc. have been established.

degree of openness Parts of the product which are freely available:

software all software and other non-physical, content parts are open source.

hardware interfaces hardware specifications and interfaces are layed openenergy

case design if applicable the case design is available, e.g. as CAD for download.

mechanics/schematics mechanical parts, circuits, designs, etc. are freely available.

entirely open the project is revealing all available information.

development driver main drivers of the development, i.e. the group(s) of people pushing forward the project.
"related company or association" refers to a company closely related to the project, for example the investing company.

production entity responsible for production. "related company or assoc." refers to an entity closely related to the project or with a production mandate. "outsourced" is whenever an external party is paid for supplying components.

Tables

title	contribution			type of collab.				activity	community communication				
	user/private	commercial	research	c. d. one c. p.	c. d. several c. p.	p. k. w/ c. d.	p. k. w/o c. d.		face-to-face	mailinglists	chat	board	other
3G Stoves	x		x			x		3	x	x		x	
Absorber Roof	x					x		3		x			
AW	x	x	x		x			3	x	x	x	x	
Agua Clara	x	x	x			x		3	x	x			
Akvo	x	x	x		x			3	x	x	x		
AITB													
Arduino	x				x			3				x	x
Atari Coldfire													
AOSM													
AVR BL													
AVR BM													
AX84 Firefly													
Balloon													
Beagle Board													
Ben NanoNote													
Biobricks													
BFB													
Brewtopia													
CLED	x						x	3					x
COSO	x	x			x			3	x	x		x	x
Chumby													
Contraptor	x					x		2			x	x	
Craftster	x	x			x			3				x	
Crypto Stick													
Cubespawn	x			x				2					x
Daisy MP3													
diy_efi	x				x			1		x			x
Elphel													
Ethernut													
Etherrape													
Fab Camera													
Fab@Home	x	x	x	x				2		x			x
Flash-Plaice													
Fnordlicht													
Formica													

Tab. 17: institutional design and production details (1/2) of OIP entries treated by OSHWL (1/3)

title	degree of openess					development drivers						product produced by							
	software	hardware interfaces	case design	mechanics/schematics	entirely open	project leader	core team	developer community	user community	related company or association	other	project leader	core team	developer community	user community	related company or association	outsourced	other	not yet clear
3G Stoves		x		x		x			x			x			x				
Absorber Roof				x		x						x							
AW							x							x					
Agua Clara					x	x				x						x			
Akvo	x						x						x						
AITB																			
Arduino	x	x		x			x	x					x	x		x			
Atari Coldfire																			
AOSM																			
AVR BL																			
AVR BM																			
AX84 Firefly																			
Balloon																			
Beagle Board																			
Ben NanoNote																			
Biobricks																			
BFB																			
Brewtopia																			
CLED		x		x	x														x
COSO			x	x	x		x			x			x			x	x		
Chumby																			
Contraptor	x	x		x	x														
Craftster					x			x	x					x	x				
Crypto Stick																			
Cubespawn	x	x	x	x	x	x						x							
Daisy MP3																			
diy_efi	x	x		x	x			x						x					
Elphel																			
Ethernut																			
Etherrape																			
Fab Camera																			
Fab@Home	x	x	x	x	x	x	x						x	x	x	x			
Flash-Plaice																			
Fnordlicht																			
Formica																			

Tab. 18: institutional design and production details (2/2) of OIP entries treated by OSHWL (1/3)

title	contribution			type of collab.				activity	community communication				
	user/private	commercial	research	c. d. one c. p.	c. d. several c. p.	p. k. w/ c. d.	p. k. w/o c. d.		face-to-face	mailinglists	chat	board	other
Free Art Bureau	x	x	x	x				2	x				x
Free Beer													
Freeduino													
Gumstix													
HD Video Capture													
Hexayurt													
Im-FFeeder													x
IP04													
IP08													
iRobot													
K People	x	x	x	x				3	x		x	x	x
LED Stripe													
Linux omap													
Local Motors	x	x		x									
MakerBot													
Mikrokopter													
Milkymist													
MISA													
MyOpenRouter													
Neuros Link													
Neuros OSD													
Niftymitter													
oBiCo	x			x				2	x				
OMFootCtrl													
OLPC													
OAN	x	x	x		x			3					x
O. Garments	x	x			x			1					x
O. Moto X	x	x	x	x				1					x
O. Pandora													
OPP													
OS Cookbook	x			x				1				x	
OS Ecology	x	x	x		x			3	x				
OSWM	x	x	x	x				2	x	x			

Tab. 19: institutional design and production details (1/2) of OIP entries treated by OSHWL (2/3)

title	degree of openness					development drivers						product produced by							
	software	hardware interfaces	case design	mechanics/schematics	entirely open	project leader	core team	developer community	user community	related company or association	other	project leader	core team	developer community	user community	related company or association	outsourced	other	not yet clear
Free Art Bureau	x	x	x	x	x	x	x					x	x	x	x				
Free Beer																			
Freeduino																			
Gumstix																			
HD Video Capture																			
Hexayurt																			
Im-FFeeder	x	x				x						x			x				
IP04																			
IP08																			
iRobot																			
K People	x						x	x	x							x			
LED Stripe																			
Linux omap																			
Local Motors			x			x				x		x				x			
MakerBot																			
Mikrokopter																			
Milkymist																			
MISA																			
MyOpenRouter																			
Neuros Link																			
Neuros OSD																			
Niftymitter																			
oBiCo	x	x				x						x							
OMFootCtrl																			
OLPC																			
OAN					x		x	x											x
O. Garments					x	x						x							
O. Moto X					x				x						x				
O. Pandora																			
OPP																			
OS Cookbook					x	x									x				
OS Ecology					x	x						x	x	x	x	x	x		
OSWM	x	x	x	x	x		x												x

Tab. 20: institutional design and production details (2/2) of OIP entries treated by OSHWL (2/3)

title	contribution			type of collab.				activity	community communication				
	user/private	commercial	research	c. d. one c. p.	c. d. several c. p.	p. k. w/ c. d.	p. k. w/o c. d.		face-to-face	mailinglists	chat	board	other
OWbP													
OS BHKW								2					x
OpenBeacon													
OpenCola													
OpenEEG													
openenergymonitor													
openEyes													
OM650	x	x					x	1					x
OpenMoko													
OpenPCD													
OpenRemote													
OpenServo	x	x			x			3				x	
OpenSpace	x		x	x				2		x			x
OpenSPARC													
OpenWrt													
OScar project													
PC Engines													
Rallylog													
Ravelry	x	x				x		3			x		x
RepRap	x		x	x				2		x	x		x
RFID door opener													
RiverSimple	x	x	x	x				2	x	x			
RONJA							x	3		x			
Sanguino													
Semitone Dimmers													
SCA	x				x			3	x		x	x	x
solar tracking	x						x	2	x	x	x	x	x
Spiffchorder													
SquidBee													
Stribe													
Stroblt Trigg													
Thingiverse	x					x		3				x	x
Traxmod													
zeroclock													
Zoybar													

Tab. 21: institutional design and production details (1/2) of OIP entries treated by OSHWL (3/3)

title	degree of openness					development drivers						product produced by							
	software	hardware interfaces	case design	mechanics/schematics	entirely open	project leader	core team	developer community	user community	related company or association	other	project leader	core team	developer community	user community	related company or association	outsourced	other	not yet clear
OWbP																			
OS BHKW					x			x											
OpenBeacon																			
OpenCola																			
OpenEEG																			
openenergymonitor																			
openEyes																			
OM650			x			x											x		x
OpenMoko																			
OpenPCD																			
OpenRemote																			
OpenServo	x	x	x	x	x	x	x									x			
OpenSpace	x	x	x	x	x	x			x			x			x				
OpenSPARC																			
OpenWrt																			
OScar project																			
PC Engines																			
Rallylog																			
Ravelry					x			x	x			x	x	x	x				
RepRap	x	x	x	x	x	x	x					x	x	x					
RFID door opener																			
RiverSimple				x						x						x			
RONJA																			
Sanguino																			
Semitone Dimmers																			
SCA					x			x						x	x				
solar tracking		x		x	x														
Spiffchorder																			
SquidBee																			
Stribe																			
Stroblt Trigg																			
Thingiverse			x		x			x	x					x	x				
Traxmod																			
zeroclock																			
Zoybar																			

Tab. 22: institutional design and production details (2/2) of OIP entries treated by OSHWL (3/3)

title	contribution	type of collab.		activity	community communication				
	user/private commercial research	c. d. one c. p. c. d. several c. p. p. k. w/ c. d. p. k. w/o c. d.			face-to-face mailinglists chat board other				

Tab. 23: institutional design and production details (1/2) of OSHWL projects not listed by OIP

title	degree of openess	development drivers			product produced by				
	software hardware interfaces case design mechanics/schematics entirely open	project leader core team developer community user community related company or association other			project leader core team developer community user community related company or association outsourced other not yet clear				

Tab. 24: institutional design and production details (2/2) of OSHWL projects not listed by OIP