

# Content:

<b>1</b>	<b>Introduction.</b>	<b>11</b>
1.1	Why this book?	11
1.2	Who is this book designed for?	12
1.3	How to use this book?	13
1.4	Abbreviations.	15
1.5	References.	16
1.5.1	Links	17
<b>2</b>	<b>Installing and configuring the PC software.</b>	<b>19</b>
2.1	Linux Operating System.	19
2.1.1	Configure Linux	27
2.2	WEB server related software.	34
2.2.1	XAMPP.	34
2.2.2	Configure XAMPP	36
2.3	Compiler sw.	39
<b>3</b>	<b>Installing and configuring the control centre.</b>	<b>42</b>
3.1	WEB interface	42
3.1.1	Installation.	42
3.1.2	Configuration.	43
3.1.3	Execution rights.	44
3.2	Parallel port.	45
3.2.1	Simple debug interface.	46
3.2.2	Finding the address of the parallel port.	47
3.2.3	Controlling the parallel port.	48
3.3	Parallel port driver	48
3.3.1	Compilation & test	48
3.3.2	Test Web interface.	49
3.3.3	Installation	51
3.4	Attached HW.	51
3.4.1	Wireless On/Off switch	52
3.4.2	Parallel port hardware interface.	53
3.4.3	Parallel port WEB interface.	55
<b>4</b>	<b>Possible extensions</b>	<b>58</b>
4.1	Wake-On-LAN support	58
4.1.1	PCI versions.	58
4.1.2	How WOL works.	64
4.1.3	Remote power up of the PC.	67
4.1.4	Wake-On-LAN savings.	69
4.2	USB web cam support.	70
4.2.1	Background.	70
4.2.2	WEB camera utilities/debug tools.	71
4.2.3	WEB camera installation and verification.	76

4.2.4	Live pictures on the Internet from the “Embedded Linux control centre”.	80
4.2.4.1	Still pictures with spccat.	80
4.2.4.2	Streaming pictures with spcaserv and spcview.	88
4.2.4.3	Panning the WEB camera.	92
<b>4.3</b>	<b>Additional extensions</b>	<b>99</b>
<b>5</b>	<b>Operating the control centre.</b>	<b>100</b>
<b>5.1</b>	<b>Logging in to the “Embedded Linux control centre”.</b>	<b>100</b>
<b>5.2</b>	<b>Daily operation.</b>	<b>101</b>
5.2.1	Management interface.	102
5.2.2	Exit	104
5.2.3	Home	105
5.2.4	Lamp control interface.	105
5.2.5	Still picture interface	106
5.2.6	Video interface	108
5.2.7	Power off interface	109
<b>5.3</b>	<b>Daily operations (reduced interface)</b>	<b>110</b>
5.3.1	HOME	111
5.3.2	PHP information	111
5.3.3	Status	111
5.3.4	Lamp control	112
5.3.5	Still picture	112
5.3.6	User management	114
5.3.7	Exit	114
5.3.8	Missing entries.	114
<b>6</b>	<b>Troubleshooting</b>	<b>116</b>
<b>7</b>	<b>Appendix.</b>	<b>120</b>
<b>7.1</b>	<b>Background and some thoughts.</b>	<b>120</b>
<b>7.2</b>	<b>First time with DSL</b>	<b>122</b>
<b>7.3</b>	<b>Some use full shell commands.</b>	<b>125</b>
<b>7.4</b>	<b>Configuring the desktop.</b>	<b>129</b>
7.4.1	Desktop	129
7.4.2	Fluxbox menu configuration.	130
7.4.3	JWM menu configuration	131
<b>7.5</b>	<b>Further configuration of XAMPP.</b>	<b>132</b>
7.5.1	Hiding your installation from the outside world.	133
7.5.2	Wake On Lan from the Internet.	136
<b>7.6</b>	<b>Driver c-code.</b>	<b>140</b>
7.6.1	Lptout.c driver code	140
7.6.2	step.c driver code	141
<b>7.7</b>	<b>Useful Parallel port data in one place.</b>	<b>143</b>
<b>7.8</b>	<b>HARDWARE interface schematic.</b>	<b>144</b>
<b>7.9</b>	<b>PCB layout.</b>	<b>145</b>
<b>7.10</b>	<b>WEB server software description.</b>	<b>147</b>

7.10.1 Overall description.	147
7.10.2 File description.	154
<b>7.11 Installation checklist.</b>	<b>231</b>