

BLUETECHNIX Embedding Ideas

Argos3D - P100

Quick Start Guide

Version 1.1







Bluetechnix GmbH

Waidhausenstraße 3/19 A-1140 Vienna AUSTRIA

office@bluetechnix.com www.bluetechnix.com

Argos®^{3D} – P100 – Quick Start Guide

Document No.: 900-308 / A

Publication date: March 20, 2013

Applicable to: SDK release ≥ 2.2

Subject to change without notice. Errors excepted.

This document is protected by copyright. All rights reserved. No part of this document may be reproduced or transmitted for any purpose in any form or by any means, electronically or mechanically, without expressly written permission by Bluetechnix GmbH.

Windows is a registered trademark of Microsoft.



Table of Contents

1	I	Unk	ooxin	ng
	1.1	1	In th	ne box
	1.2	2	Cor	nnecting your Argos ^{3D} -P1004
		1.2.	1	Connector Overview 4
		1.2.	2	Connecting the power supply5
		1.2.	3	Connecting USB2.0 cable
2	I	Dov	vnloa	ading Evaluation Package6
	2.1	1	Sup	port website6
	2.2	2	Log	in Screen
	2.3	3	Reg	jister as new customer
3	I	Inst	all Ai	rgos ^{3D} -P100 Drivers
4	;	Sta	rt usi	ing your Argos ^{3D} -P100 with 'LightVis' 16
5	;	Sys	tem	Requirements& Support 17
	5.1	1	Ligh	ntVis
	5.2	2	Sup	pport
6	I	Pro	duct	History
	6.1	1	Vers	sion Information
	(6.1.	1	Argos3D – P100
	6.2	2	Ano	malies
	6.3	3	Doc	cument Revision History
7	I	Inde	эх	



© Bluetechnix GmbH 2013

All Rights Reserved.

The information herein is given to describe certain components and shall not be considered as a guarantee of characteristics.

Terms of delivery and rights of technical change reserved.

We hereby disclaim any warranties, including but not limited to warranties of non-infringement, regarding circuits, descriptions and charts stated herein.

Bluetechnix makes and you receive no warranties or conditions, express, implied, statutory or in any communication with you. Bluetechnix specifically disclaims any implied warranty of merchantability or fitness for a particular purpose.

Bluetechnix takes no liability for any damages and errors causing of the usage of this board. The user of this board is responsible by himself for the functionality of his application. He is allowed to use the board only if he has the qualification. More information is found in the General Terms and Conditions (AGB).

Information

For further information on technology, delivery terms and conditions and prices please contact Bluetechnix (http://www.bluetechnix.com).

Warning

Due to technical requirements components may contain dangerous substances.



Last change: 20 March 2013 Version 1.1

1 Unboxing

1.1 In the box

- Argos^{3D}-P100
- Micro-USB Cable
- 5V_{DC}/3Apower supply
- Tripod

1.2 Connecting your Argos^{3D}-P100

1.2.1 Connector Overview

The Argos^{3D} – P100 features three connectors. A $5V_{DC}@3A$ connection, Micro USB2.0 and an external sync interface.



Figure 1-1: Connector Overview

- a. Modulation Light Interface
- b. Micro USB 2.0 Interface
- c. Power Connector

NOTE: Please follow the next steps in the right order to get your 'P100' up and running correctly.



Last change: 20 March 2013 Version 1.1

1.2.2 Connecting the power supply

To ensure, that yourArgos^{3D} – P100 works correctly, plug in the power supply and wait for approximately 10 seconds until the camera boots up.



Figure 1-2: Connecting Power Supply

1.2.3 Connecting USB2.0 cable

After boot up, plug in the micro USB2.0 cable and connect your Argos^{3D} – P100 to your PC.



Figure 1-3: Connecting USB2.0 cable



2 Downloading Evaluation Package

Please log in to our support website at <u>https://support.bluetechnix.com/</u> and download the Evaluation Package for your Argos^{3D} – P100. It contains drivers, development kits and software for evaluation.

2.1 Support website



Figure 2-1: Download Evaluation Package

2.2 Login Screen

Log In	
Dear valued customer,	
	g Bluetechnix software. Please note that to enter this site you will need to create an account. If t, please <u>sign up here.</u> If you already have an account, you may log in using your email address an
For documentation and	support please click <u>here</u> .
Login Details	
Email address	
Password	
Password	
	Login

Figure 2: Login screen



Last change: 20 March 2013

Version 1.1

Quick Start Guide - Argos3D - P100

2.3 Register as new customer

If you don't have a valid customer login you can create a new account at <u>https://support.bluetechnix.com/software/CreateUser.aspx</u>

https://support.bluetechniz	any software/ create	озенаери
Bluetechnix Subversi	on Access Ma	nagement System
New User Information		
Dear valued customer, Thank you for purchasing from E fast as possible.	luetechnix. Please r	read the instructions below so we are able to create your account as
multiple accounts for a single co	mpany if for example	servers, you will need to create an account. It is possible to create le more than one employee needs to download software. Please note ess rights. It is not possible to restrict certain employees to specific
This system is not live and even until you are actually able to ac		are allowed to access specific repositories, there is a one hour delay
Please note that this is a monito password attempts,) are det		ive actions (trying to access locked repositories, dictionary/brute for t will be suspended.
Upon registration, this system p	erforms basic check	s on your data and will then inform you of the result.
User Details	nrougn a distributor	and therefore have no customer number, please click here to request
First name *		
Last name *		
Company name *		
Email address *		
Phone number		
Customer number *		No customer number?
Password *		
Password (verify) *		
R	egister	
		Back to the login pa

Figure 2-3: Registration form



Last change: 20 March 2013 Version 1.1

Once you downloaded the evaluation package extract the .zip file on your hard drive to e.g.

C:\Argos3D-P100\ and read the Readme.txt first.

Organize 🔻 👘 Include in library	▼ Share with ▼	Burn	New folder			
🌗 Argos3D-P100	Name ^		Date modified	Туре	Size	
l calibration	l calibration		19.03.2013 16:45	File folder		
🎳 linux	📄 📗 linux		19.03.2013 16:45	File folder		
	🗉 🚺 manual		19.03.2013 16:45	File folder		
i manual	windows		19.03.2013 16:45	File folder		
windows	🗋 Readme.txt		19.03.2013 16:44	Text Document	1 KB	
📕 driver						
ia64						
x86						
Windows32bit						
LightVis						
PMDSDK						
Windows64bit						
🌗 LightVis						
PMDSDK						

Figure 2-4: Unzipped evaluation package



Last change: 20 March 2013 Version 1.1

3 Install Argos^{3D}-P100 Drivers

At the first time you have plugged in your Argos^{3D}-P100, you have to install the driver which can be found in the evaluation package.

Open the Windows Device Manager by pressing the *Windows-Button* + *Pause-Button* and choose *Device Manageras* shown in following figure.

🕞 🕞 🖉 🕨 Control Panel 🕨	System and Security 🕨 System		👻 🍫 Search Control Panel	Q
Control Panel Home Control Panel Home Control Panel Home Kemote settings System protection Advanced system settings	View basic information Windows edition Windows 7 Professional Copyright © 2009 Microso Service Pack 1 Get more features with a n	ft Corporation. All rights reserved.		
	System Rating: Processor:	4,3 Your Windows Experience Index needs to be refreshed Intel(R) Core(TM)2 Duo CPU E8400 @ 3.00GHz 3.00 GHz		E
	Installed memory (RAM):	4,00 GB (3,23 GB usable)		
	System type: Pen and Touch:	32-bit Operating System No Pen or Touch Input is available for this Display		
	Computer name, domain, and Computer name:		🚱 Change :	settings
See also Action Center	Full computer name: Computer description: Domain:			
Windows Update Performance Information and Tools	Windows activation Windows is activated		ask for	ine

Figure 3-1: Windows Device Manager



Last change: 20 March 2013

Version 1.1

Once Device Manager is opened, right click "*Bluetechnix – Argos3D – P100*" in "Other Devices" and click "*Update Driver Software*".

🚽 Device Manager				
File Action View Help				
🗢 🄿 📰 🖾 🛛 🖬 🗟 🔛	5			
Computer Disk drives Disk drives Display adapters DVD/CD-ROM drives Floppy drive controllers Human Interface Devices DE ATA/ATAPI controllers DE ATA/ATAPI controllers DIE ATA	Update Driver Software Disable Uninstall Scan for hardware changes			
🔈 🖷 Universal Serial Bus controllers	Properties			
Launches the Update Driver Software Wizard for	the			

Figure 3-2: Device Manager – Update Driver Software



Then choose "Browse my computer for driver software".

Last change: 20 March 2013 Version 1.1

G I Update Driver Software - Bluetechnix - Argos 3D - P100	×
How do you want to search for driver software?	
Search automatically for updated driver software Windows will search your computer and the Internet for the latest driver software for your device, unless you've disabled this feature in your device installation settings.	
Browse my computer for driver software Locate and install driver software manually.	
	Cancel

Figure 3-3: Locate and install driver software manually



Last change: 20 March 2013

Version 1.1

Point the driver install utility to "C:\Argos3D-P100\windows\driver" on your local hard drive. Check "Include subfolders" and click "Next".

Update Driver Software - Bluetechnix - Argos 3D - P100	x
Opdate Driver Software - Bidetechnix - Argos 5D - P100	
Browse for driver software on your computer	
Search for driver software in this location:	
C:\Argos3D-P100\windows\driver	Browse
✓ Include subfolders	
	Next Cancel

Figure 3-4: Browse for driver software on your computer



Last change: 20 March 2013 Version 1.1

If the Windows Security warning appears choose "Install this driver software anyway".

😵 Win	Windows Security					
8	Windows can't verify the publisher of this driver software					
	•	Do <u>n</u> 't install this driver software You should check your manufacturer's website for updated driver software for your device.				
	•	Install this driver software anyway Only install driver software obtained from your manufacturer's website or disc. Unsigned software from other sources may harm your computer or steal information.				
See <u>d</u> etails						

Figure 3-5: Driver security warning



Last change: 20 March 2013 Version 1.1

The Update Driver Software Utility finishes the driver installation showing following Window.



Figure 3-6: Driver Software successfully installed



Last change: 20 March 2013 Version 1.1

After successful driver installation there should be a new device in device manager named "*Bluetechnix* – *Argos 3D* – *P100*".



Figure 3-7: PMD Devices in Device Manager

Congratulations

You now have successfully installed your Argos^{3D} – P100 on your PC.



4 Start using your Argos^{3D}-P100 with 'LightVis'

When you browse to "*C*:*Argos3D-P100**windows**Windows32bit**LightVis*" you'll find LightVis.exe. Using this software you can simply display the depth image and the amplitude image of the Argos3D-P100. Mount the Argos3D-P100 on the provided tripod and place it on your desk approximately 30 cm in front of you.



Figure 4-1: Sample scenario with Argos3D-P100

Then hit the "fit scale" button for both, the amplitude image and the depth image, as shown in following screenshot:



Figure 4-2: LightVis screenshot



Last change: 20 March 2013 Version 1.1

5 System Requirements& Support

An Argos^{3D}-P100 enabled application is required in order to use this Argos^{3D}-P100 device.

Connect to a system with:

- Operating System: Microsoft Windows 7
- 32 bit (x68) or 64 bit (x64) processor
- Dual-core 2 GHz or faster CPU
- Dedicated USB 2.0 port
- 2GByte RAM

5.1 LightVis

LightVis is available on following operating systems:

- Microsoft Windows XP/Vista/7
- Ubuntu 10.04 LTS

5.2 Support

For answers to common questions, troubleshooting steps and further documentation visit our Bluetechnix support website or using the direct link: <u>https://support.bluetechnix.com/wiki/Argos</u>





Last change: 20 March 2013 Version 1.1

6 Product History

6.1 Version Information

6.1.1 Argos3D - P100

Version	Component	Туре
1.0.0	Processor	Spartan 6
	Sensor	19kS3

Table 6.1: Overview Argos3D – P100 product changes

6.2 Anomalies

Version	Date	Description
1.0.0	201302 06	No anomalies reported yet.

Table 6.2: Product anomalies

6.3 Document Revision History

Version	Date	Document Revision
0	20130206	First release V1.0 of the Document
1	20130320	Updated screenshots

Table 6.3: Revision history

7 Index

A

Amplitude image	16
Anomalies	18

С

Connecting
Argos3D-P1004
Contents
Package4

D

Depth image16
Drivers
Installation9

Ε

Evaluation Package
Downloading6

F

Fit scale	
Configuration	16



Ρ

Power Supply	
Connecting5	5
Product History 18	18

S

Start using your Argos
LightVis16
System Requirements & Support 17

T

Froubleshooting	17	7
	. 17	1

U

USB2.0	
Connecting	5