

BLUETECHNIX Embedding Ideas

Argos 3D -P320

Quick Start Guide

Version 1







Bluetechnix

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Argos3D-P320 - Quick Start Guide

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Table of Contents

1	Un	nboxing			
	1.1	In the box			
	1.2	Opening your Argos3D–P3205			
	1.3	Connecting your Argos3D–P3206			
	1.4	Connector Overview			
	1.4	.1 Connecting the power supply7			
	1.4	.2 Connecting the Ethernet Cable			
2	Do	wnloading the Evaluation Software			
	2.1	Support website			
	2.2	Start-up screen9			
	2.3	Prepare your Network Interface Card (NIC) 10			
3	Sta	art using your Argos3D–P320 with 'BltTofSuite'			
4	Sys	stem Requirements & Support			
	4.1	Bluetechnix ToF Suite			
	4.2	Support			
5	Pro	oduct History			
	5.1	Version Information			
	5.1	.1 Argos3D–P320			
	5.2	Anomalies14			
	5.3	Document Revision History 14			
6	Ind	lex15			



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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.



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1 Unboxing

1.1 In the box

- Argos3D-P320
- CAT5/7 Ethernet Cable
- Quick Start Guide
- Power Supply *

* Note

The power supply's operating temperature is specified from 0 to +40°C. This represents not the effective working temperature of the Argos3D–P320 sensor!

1.2 Opening your Argos3D–P320

To access the connector compartment unscrew the two screws on the Argos3D-P320 front and take off the connector compartment lid.



Figure 1-1: Argos3D–P320 connector compartment screw positions



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1.3 Connecting your Argos3D–P320

1.4 Connector Overview

- a. Power Connector
- b. Ethernet
- c. General purpose input 1 & 2
- d. General purpose output 1 & 2
- e. Modulation Light Interface
- f. Trigger

- g. RS232 / RS485
- h. DIP-Switch
- i. Reset-Button
- j. Debug-UART
- k. Status LED



Figure 1-2: Argos3D–P320 connectors and interfaces

Note

Please follow the next steps in the right order to get your 'Argos3D-P320' up and running correctly.



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1.4.1 Connecting the power supply

To ensure, that your Argos3D–P320 works correctly, connect the 'Argos3D' to a **12-30V DC** power supply using connector **(a)** and wait for approximately 20 seconds until the camera boots up.

Pin assignment on the power connector (a): Pin #1: +12V to +30V, Pin#2: GND

Note

The power supply connector is protected against wrong polarity but the 'Argos3D' will not work in case you don't use the correct polarity! If the Argos3D–P320 doesn't work please check the power supply polarity first!

1.4.2 Connecting the Ethernet Cable

Plug in the Ethernet cable (b) and connect your Argos3D–P320 to your PC.



Figure 1-3: Argos3D–P320 with connected power supply and Ethernet cable



2 Downloading the Evaluation Software

Please log in to our support website at <u>https://support.bluetechnix.com/</u> and download the Argos-P320 customer software package. This package also includes the Bluetechnix ToF-Suite.

2.1 Support website

Select ,free access'





Figure 2-1: Download Evaluation Package

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Last change: 12 October 2015 Version 0.1

2.2 Start-up screen

	Main Page
LUETECHNIX	Welcome to the Bluetechnix Support Wiki!
mbedding Ideas	
	Please click on a product name to get detailed information.
vigation	
Main Page	1 Depth Sensing
Depth Sensing	
ny Boards	Products
oftware	Argos
LACKSheep	Argos 3D - P100
Software Download	Argos 3D - P310
Support	Argos 3D - P320
ch	Sentis
	Tiny ToF - epc610
Go Search	Sentis ToF - M100
Go Search	Sentis ToF - P100
box	Sentis ToF - P510
What links here	Sentis ToF - P509
Special pages	
ermanent link	Flash
export	ToF-Flash
reate a book	Modules
ownload as PDF	ToF Modules (TIM)
Printable version	TIM-UP-19k-S3-Spartan6
	TIM-UP-19k-S3-ETH
	Illumination Modules (LIM)
	LIM-U-LED-850-x
	KITs
	MTK Evaluation KITs
	MTK USB Evaluation KIT for TIM-UP-19k-S3-Spartan6
	MTK ETH Evaluation KIT for TIM-UP-19k-S3-ETH
	Lens KITs

Figure 2-2: Start-up screen

Please select your product: Argos 3D - P320

Please follow the instructions on the WEB-Site



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2.3 Prepare your Network Interface Card (NIC)

Once you have connected your Argos3D–P320 to a Network Interface Card (NIC) of your PC give this NIC the IP-Address 192.168.0.1 with a subnet mask of 255.255.255.0.

No driver must be installed on your PC!

The Argos3D–P320 uses IP-Address 192.168.0.10 with subnet mask 255.255.255.0.



3 Start using your Argos3D–P320 with 'BltTofSuite'

Browse to the directory where you previously saved the BltTofSuite software zip file. Unzip the software.

Using this software you can simply display the depth image and the amplitude image of the Argos3D–P320. For a detailed introduction to the software, please read the 'Bluetechnix ToF Suite - Quick Start Guide'

Place the Argos3D–P320 on your desk approximately 50 cm in front of you.



Figure 3-1: Sample scenario with Argos3D-P320

Go to the directory where you unzipped the software and start the "*BltTofSuite.exe*". Connect to the Argos3D-P320 using the network configuration listed in 2.3. After the connection is established, you should see something like the screenshot below.

Last change: 12 October 2015 Version 0.1



Last change: 12 October 2015

Version 0.1

Bluetechnix ToF Visualizer V3.0.0				
Shortcuts				
Dist	Amp		17	
Data analysis Name: Mouse hover: (#, # Dist: Amp:	t): Click/Selection: Current val:	(#, #):	Sliding over 30 fra Avg: 0.0 St	ames: (0) ? tdDev: 0.0
Display Dist Amp	Basic registers	auto	? Get	
	Exposure:	iv auto	Set Get A	
Dist Amp	Exposure:	 ✓ auto ✓ 40 	Set Get A	
Dist Amp Channel 0 1	Exposure: Integration time [µs] Frame rate [Hz]		Set Get	hex
Dist Amp Channel 0 1 1 Mirror 1 1 Color map min 00	Exposure: Integration time [µs] Frame rate [Hz]		Set Get	hex
Dist Amp Channel 0 1 1 Mirror 1 1 Color map min 00	Exposure: Integration time [µs] Frame rate [Hz]	40	Set Get	hex
Dist Amp Channel 0 1 Mirror Color map min 00 Color map max 1500 250	Exposure: Integration time [µs] Frame rate [Hz]	40	Set Get	hex ? Free Set Get
Dist Amp Channel 0 : 1 Mirror 1 Color map min 00 Color map max 1500 250	Exposure: Integration time [µs] Frame rate [Hz] Extended registers	40	Set Get Set Get Oxa9c1	hex ? For Set Get 43/75

Figure 3-2: BltTofSuite screenshot



Last change: 12 October 2015

Version 0.1

Quick Start Guide - Argos 3D - P320

4 System Requirements & Support

An Argos3D-P320 enabled application is required in order to use this 'Argos3D' device.

Connect to a system with:

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

4.1 Bluetechnix ToF Suite

Visualizer is a .NET application and needs the **.NET framework 4.0** which is available from Microsoft for all actual Windows versions.

4.2 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.at/wiki/Argos_3D-P320</u>



Last change: 12 October 2015

Version 0.1

5 Product History

5.1 Version Information

5.1.1 Argos3D-P320

Version	Release date	Firmware Version
X-Grade	Sep 2015	V0.9.0

Table 5.1: Overview Argos3D–P320 product changes

Additional information can be found at http://support.bluetechnix.com

5.2 Anomalies

Version	Date	Description
0.0.0		No anomalies reported yet.

Table 5.2: Product anomalies

Additional information can be found at http://support.bluetechnix.com

5.3 Document Revision History

Version	Date	Document Revision	
1	20151012	First draft	

Table 5.3: Revision history

6 Index



Last change: 12 October 2015 Version 0.1

A

Amplitude image 1	1
Anomalies 1	4

С

Connecting
your Argos3D–P3106
Contents
Package5

D

Depth image 11

E

Evaluation Package	
Downloading8	

0

Opening	
your Argos3D–P3205	,

Ρ

Power Supply	
Connecting	7
Product History	14

S

System	Requirements	& Support	 5
oyotonn	rioquirornorno	a ouppoir	 ·

T