



# eyes<sup>3®</sup>APP

## **ELECTRONIC LINE-CALLING**



Table of Content	2-4
eyes <sup>3</sup> APP Components	5
eyes <sup>3</sup> APP - Walk-through	6-7
User Account	8
Player Account	9
Create User Account	10
Create MATCH	11
eyes <sup>3</sup> CONTROL	12
eyes <sup>3</sup> CONTROL - MATCH Control	13
eyes <sup>3</sup> CONTROL - CAMERA Group	14-16
Physical eyes <sup>3</sup> CAMERA Group	17

**Table of Content** 



Recording Device Focus				
eyes <sup>3</sup> CAMERA CALIBRATION	19			
eyes <sup>3</sup> CAMERA CALIBRATION (Local)	20			
eyes <sup>3</sup> CAMERA CALIBRATION (Remote)	21			
eyes <sup>3</sup> CAMERA CALIBRATION (Global)	22			
eyes <sup>3</sup> CAMERA CALIBRATION (Verify)	23			
eyes <sup>3</sup> CAMERA CALIBRATION (Snapshot)	24			
eyes <sup>3</sup> CAMERA CALIBRATION (Manual)	25			
Initiate CHALLENGE	26			
Review CHALLENGE Result	27			

**Table of Content** 



No RELEVANT Ball Impact	28			
eyes <sup>3</sup> SCOREBOARD - Presentation	29			
Review CHALLENGE History	30			
eyes <sup>3</sup> APP - HIGHLIGHTS	31			
eyes <sup>3</sup> APP - MATCH RECORDING	32			
eyes <sup>3</sup> APP - MATCH STATS				
Technical Support	34			
Appendix - Recording Device Identification	35			
Appendix - Auto Re-start APP	36			
Appendix - Conserve Battery Life	37			

#### **USER GUIDE**

#### eyes<sup>3</sup> APP - Components

#### eyes<sup>3</sup> APP comprises 4 separate components

#### eyes<sup>3</sup> CAMERA

#### 

eyes<sup>3®</sup>





eves3-iphone7-AB

82% Unplugged

#### eyes<sup>3</sup> APP - Walk-through **USER GUIDE**



• eyes<sup>3®</sup>

#### **USER GUIDE**

#### eyes<sup>3</sup> APP - Walk-through





eyes<sup>3®</sup>

#### **User Account**



Once you have the eyes<sup>3</sup> APP installed, you can sign up for an eyes<sup>3</sup> account or log in to an existing eyes<sup>3</sup> account.



You have logged in successfu	lly.
eyes3	
Log In	Sign Up
<ul> <li>test@e</li> <li>Loading</li> <li>•••••</li> </ul>	word?



To assign Players to a MATCH created in eyes<sup>3</sup>, an eyes<sup>3</sup> account must first be created for the Player. This Player account can be created by the Player herself or by the User, on the Player's behalf. Once the Player account is created, she can be selected "From Friends" when Create MATCH.





Players can create their user accounts:

- 1. signing up for a new account at http://www.eyes3.com; or
- 2. directly through the eyes<sup>3</sup> APP

Once the user accounts have been created, users can upload their profile pictures, change their Usernames or Display Names.



#### **USER GUIDE**

#### **Create MATCH**



Once you have logged in, you can create a new MATCH by selecting the [+] icon in the MATCH List Screen.

In the Edit MATCH Screen, select the following to complete the process:

Singles or Doubles



- MATCH Title
- MATCH Type
- Select PLAYERS (see Player Account)

Close eyes3	+
test45	
8 days ago	_
Btest	
) days ago	
A test	
9 days ago	
Jay Test	
9 days ago	
test44	
9 days ago	
test43	
10 days ago	
Test42	
11 days ago	
test41	
12 days ago	
12 days ago Done Edit Match MATCH TITLE	h
12 days ago Done Edit Matcl MATCH TITLE New Match	h
12 days ago Done Edit Match MATCH TITLE New Match MATCH TYPE	h ©
12 days ago Done Edit Match MATCH TITLE New Match MATCH TYPE Best of 3 6-Game Set, Ad Scor	h ©
12 days ago Done Edit Match MATCH TITLE New Match MATCH TYPE Best of 3 6-Game Set, Ad Scor TEAM A	n Ing Edit MATCH
Done       Edit Match         MATCH TITLE       Match         MATCH TYPE       Best of 3 6-Game Set, Ad Scor         TEAM A       Player 1	h ing Edit MATCH
I2 days ago       Done     Edit Match       MATCH TITLE       New Match       MATCH TYPE       Best of 3 6-Game Set, Ad Scor       TEAM A       Player 1       Player 2	h ing Edit MATCH
12 days ago  Done Edit Match  MATCH TITLE  New Match  MATCH TYPE  Best of 3 6-Game Set, Ad Scor  TEAM A  Player 1  Player 2  TEAM B	h ing Edit MATCH

Player 2

Match Id: d452a026-bf1f-4e42-8c53-ba1cd5c1f4c9

Copyright © 2020 Infinity Cube Limited All Rights Reserved

#### **USER GUIDE**

## eyes<sup>3</sup> CONTROL



Monitor all aspects of the operation of eyes<sup>3</sup> APP

#### 1. MATCH Control

- 1.1.Live Score-keeping
- 1.2.Initiate CHALLENGE
- **1.3.Review CHALLENGE Results**
- 1.4.Tag Shots for ANALYTICS
- 2. Monitor CAMERA Group and Status
  2.1.Assign CAMERA Group to MATCH (see Assign eyes<sup>3</sup> CAMERA Group)
  2.2.Monitor CAMERA Group Status
  2.3.Check CAMERA Status





## USER GUIDE eyes<sup>3</sup> CONTROL - MATCH Control <sup>1</sup> eyes<sup>3®</sup>

Undo

Ace

1st Fault

 $\odot$ 

History



- 1.1.ADD Score (by Point or Game)
- 1.2.UNDO previous ADD Score
- 1.3.CHANGE Order of Serve
- 1.4.TAG Shots for Analytics
- 2. Initiate CHALLENGE
- 3. Review CHALLENGE Results





## USER GUIDE eyes<sup>3</sup> CONTROL - CAMERA Group ' eyes<sup>3®</sup>

#### Monitor CAMERA Group and Status

- 1. Assign CAMERA Group to MATCH (see Assign CAMERA Group)
- 2. Select [+] to create new CAMERA Group (if required)

		<u> </u>		Close	Test	Actions
Close Control Cameras	Close	Camera Group		_		
Demo – Eves3 Live Camera Group: No Config	Default					
Assign Camera Group			-			
Edit Match						
Challenge Time Limit: 10 sec						
Highlight Time Limit: 30 sec				11	3	
Add Score By Point						
Invite						
Share Match Analytics				Manual Name eyes3-iphone7	7-DB Calibrate Batter 87%	Mask Preview y / Unplugged
Enable Score Tagging				Yes	No MOCK MOC	K MOCK
Cancel				6 5	3 4 моск мос 1 2	10 9 8
Control mistory Summary Recording						_

Copyright © 2020 Infinity Cube Limited All Rights Reserved

## USER GUIDE eyes<sup>3</sup> CONTROL - CAMERA Group ' eyes<sup>3®</sup>

## Monitor CAMERA Group and Status

## 1. Monitor CAMERA Group Status

Manual Verify C	Calibrate Mask Preview	Close     Contr     Cameras       Test46     Test46
Name eves3-iphone7-DB	Battery 87% / Unplugged	
Enable Challenge	Enable Highlight	
Yes	No	GREEN RED All Attached CAMERAs One or More CAMERAs
моск моск 7 3	моск 4 10 9	On-line and Recording Off-line or NOT Recording
моск 5 1	2 8	
Manual Verify (	Calibrate Mask Preview	GREEN = CAMERA On-line and Recording
Name	Battery	моск
Name eyes3-iphone7-DB	Battery 87% / Unplugged	RED = CAMERA On-line but NOT Recording
Name eyes3-iphone7-DB Enable Challenge Yes	Battery 87% / Unplugged Enable Highlight No	RED = CAMERA On-line but NOT Recording
Name eyes3-iphone7-DB Enable Challenge Yes MOCK 7 3	Battery 87% / Unplugged Enable Highlight No моск 4 10	RED = CAMERA On-line but NOT Recording BLUE = CAMERA Off-line
Name eyes3-iphone7-DB Enable Challenge Yes MCCK 7 3 6 5 1	Battery 87% / Unplugged Enable Highlight No 4 10 9 2 8	<ul> <li>RED = CAMERA On-line but NOT Recording</li> <li>BLUE = CAMERA Off-line</li> <li>GREY = No CAMERA Attached</li> </ul>

## USER GUIDE eyes<sup>3</sup> CONTROL - CAMERA Group ' eyes<sup>3®</sup>

#### Monitor CAMERA Group and Status 2. Check CAMERA Status



## USER GUIDE Physical eyes<sup>3</sup> CAMERA Group Vers<sup>3®</sup>

- 1. Physically place Recording Devices around the Court (see Physical Setup)
- 2. Create new CAMERA Group via MATCH Control (as required)
- 3. Assign "CAMERA Group"

3.1.START Recording3.2.Assign GROUP; e.g. {Default}3.3.Identify the Recording Device's CAMERA Placement; e.g. {10}







#### USER GUIDE Recording Device Focus



For best results, ensure that the recording image is correctly focused.

Touch the area to lock the camera focus (indicated by a green square). The square changes colour to red when focus lock is achieved.



Focusing

**Focus Locked** 

## USER GUIDE eyes<sup>3</sup> CAMERA CALIBRATION 'v<sup>o</sup> eyes<sup>3</sup>

CALIBRATION is an eyes<sup>3</sup> operational function where the system configures the Court lines, and must be performed before the start of every MATCH, and the CALIBRATION Status should be checked regularly to ensure there are no 'out-of-CALIBRATION' situations.

The different CALIBRATION actions are:

- a. CALIBRATION (Local)
- b. CALIBRATION (Remote)
- c. CALIBRATION (Global)
- d. CALIBRATION (Verify)
- e. CALIBRATION (Snapshot)
- f. CALIBRATION (Manual)



## USER GUIDE eyes<sup>3</sup> CAMERA CALIBRATION Vers<sup>3®</sup>

#### a. CALIBRATION (Local)

CALIBRATION can be performed directly on the Recording Device when it is properly placed and in RECORDING mode







Copyright © 2020 Infinity Cube Limited All Rights Reserved

## USER GUIDE eyes<sup>3</sup> CAMERA CALIBRATION Vers<sup>3®</sup>

#### b. CALIBRATION (Remote)

CALIBRATION can be performed remotely from eyes<sup>3</sup> CONTROL



## USER GUIDE eyes<sup>3</sup> CAMERA CALIBRATION Vers<sup>3®</sup>

#### c. CALIBRATION (Global)

CALIBRATION can be performed simultaneously on **all** Recording Devices from eyes<sup>3</sup> CONTROL



#### d. CALIBRATION (Verify)

CALIBRATION (Verify) is a function to allow a visual confirmation that the CALIBRATION Status of each Recording Device is calibrated properly.

The function works by displaying virtual Court lines overlaid on the actual Court lines for a visual confirmation of proper CALIBRATION

- if the virtual Court lines are directly aligned with the actual Court lines, then the CALIBRATION is proper
- if the virtual Court lines are not aligned with the actual Court lines, then there is an 'out-of-CALIBRATION' situation



CALIBRATED properly



out-of-CALIBRATION

#### e. CALIBRATION (Snapshot)

When checking CALIBRATION Status on a regular basis, you should perform the CALIBRATION (Snapshot) function prior to running the CALIBRATION (Verify) function.

The Snapshot function returns the most up-to-date image of the actual Court lines for the VERIFY Court lines alignment check.

## The SNAPSHOT function is a quick method to check calibration to highlight whether a re-CALIBRATION is necessary

*{TIP} the CALIBRATION (Snapshot) function can also be performed globally through the [Action] button. See CALIBRATION (Global)* 

## USER GUIDE eyes<sup>3</sup> CAMERA CALIBRATION V eyes<sup>3®</sup>

#### f. CALIBRATION (Manual)

In situations where the automatic CALIBRATION function is unable to configure for Court lines, the CALIBRATION has to be performed manually.

Move the markers so that each market points to the intersection that makes up the "No Man's Land" box





Initiate CHALLENGE





When the CHALLENGE function is initiated, the system will process ball impacts over the immediate previous 10 seconds\* and return the CHALLENGE Results for review (see Review CHALLENGE Results)

\* the Player is required to make her CHALLENGE "in a timely manner"



Identifying the Player making the CHALLENGE allows the system to keep a record of how many CHALLENGES she has remaining

#### USER GUIDE Review CHALLENGE Result

#### Select RELEVANT Ball Impact

 The system will display ball impacts detected in the duration captured by the CHALLENGE function; there may be multiple ball impacts detected in that duration

 $\sim eves^3$ 

 The Reviewer/Player must identify/select the <u>correct</u> ball impact for the IN/OUT decision => the **RELEVANT** Ball Impact



## USER GUIDE No RELEVANT Ball Impact



#### No RELEVANT Ball Impact Scenario

There are instances where the none of the ball impacts detected is the RELEVANT Ball Impact. Such scenarios can be due to:

- The CHALLENGE was not initiated timely (e.g. initiated more than 10 seconds after the RELEVANT ball impact instance)
- The view of the Relevant Ball Impact was occluded by a Player
- The system failed to detect the RELEVANT Ball Impact

In such No RELEVANT Ball Impact Scenario, the conventional rule is to allow the <u>original line-call</u> to stand

## USER GUIDE eyes<sup>3</sup> SCOREBOARD - Presentation <sup>1</sup> eyes<sup>3®</sup>

#### Select RELEVANT Ball Impact

Once the RELEVANT Ball Impact is identified, select this ball impact by pressing the 'star' button. This will send the CHALLENGE Result to **eyes<sup>3</sup> SCOREBOARD** - Presentation mode (if available)



#### USER GUIDE Review CHALLENGE History

SHistory

**Review CHALLENGE History** 

In eyes<sup>3</sup> Match Control mode, Click on to always display the Most Recent CHALLENGE Result.

Challenge

Set 1 2-3 0-0 (70253)

2 months ago 2020-08-20 21:28:41 eves<sup>3®</sup>

To Review the CHALLENGE Results History, press this button





eyes<sup>3®</sup>

## USER GUIDE eyes<sup>3</sup> APP - MATCH RECORDING 'v<sup>o</sup> eyes<sup>3®</sup>



## USER GUIDE eyes<sup>3</sup> APP - MATCH STATS vertes<sup>3®</sup>

# Match Statistics (including Score History) can be accessed via the **Summary** function.

Dave

John Do

Davel

John Do



		Summary	D	etails		FIRST F	AULT
}	Hermioni Hertz		Jessica J	oule		Hermio	oni Hertz
	& Dave Ming	VS	& John Do	oe		Jessic	a Joule &
	MATCH STATS					DOUBLE	FAULT
	Avg Points Pe	r Game		6		Hermio	oni Hertz (
	Longest Deuc	e		3		Jessic	a Joule &
	Total Breakpo	ints		21			
	Total Deuces			9			F
	Total Games			24			J
	Total Points			145			
	FIRST FAULT	Close	Score	Details			H
	Hermioni Her	Hermioni H &	lertz I	/S	Jessica 、 &	Joule	J
	Jessica Joule	Dave Mir	ng		John D	)oe	
		Set 1 / Gam	e 1 / 1 - 0				
		Set 1 / Gam	e 2 / 1 - 1				
		2020/10/10 07:29 Service: Jessica .	:13 to 07:29:5 Joule & John [	53 (40 sec) Doe			
			0	- 1	15		
		2020/10/10 07:29 Service: Jessica .	:53 to 07:30: Joule & John [	16 (23 sec) Doe			
			0	- 3	30		
		2020/10/10 07:30 Service: Jessica .	):16 to 07:30:3 Joule & John [	39 (23 sec) Doe			
			•	_ /	10		

	FIRST FAULT PERCENT	
ling 27	Hermioni Hertz & Dave Ming	34%
e 21	Jessica Joule & John Doe	32%
	DOUBLE FAULT PERCENT	
1ing 2	Hermioni Hertz & Dave Ming	2%
e 2	Jessica Joule & John Doe	3%

SERVICE GAME HOLD PERCENT	
Hermioni Hertz & Dave Ming	50%
Jessica Joule & John Doe	58%
SERVICE POINTS WON PERCENT	
Hermioni Hertz & Dave Ming	50%
Jessica Joule & John Doe	55%

GAMES SERVED	
Hermioni Hertz & Dave Ming	12
Jessica Joule & John Doe	12
GAMES WON	
Hermioni Hertz & Dave Ming	11
Jessica Joule & John Doe	13
POINTS WON	
Hermioni Hertz & Dave Ming	69
Jessica Joule & John Doe	76



If you encounter any issues, please contact your eyes<sup>3</sup> Certified Trainer for assistance.

## USER GUIDE Appendix - Recording Device Identification 've eyes<sup>3®</sup>

It is useful to identify the Recording Device/s that are placed around the Court.



## USER GUIDE Appendix - Auto Re-start APP 'v eyes<sup>3®</sup>

For operational efficiency, it is recommended that eyes<sup>3</sup> CAMERA auto re-start function is enabled. This function enables eyes<sup>3</sup> CAMERA to automatically re-start if necessary.

{SETTINGS-ACCESSIBILITY} i) Guided Access ENABLED ii) Accessibility Shortcut ENABLED	{SETTINGS-Display & Brig Auto-Lock NEVER	ghtness} {	eyes <sup>3</sup> APP SETTING	GS}	{eyes <sup>3</sup> APF QUIT Auto Stan	CAMERA}	
Sack Guided Access	<b>&lt;</b> Settings Display & Brightness	No S	ervice 穼 6:10 PM	€ 74% □			
		C	ose Settings	Ú		Obere alle a Manda	
Guided Access	BRIGHTNESS				Quit Au	to Standby Mode	
Guided Access keeps the iPhone in a single app and	* <u> </u>	- X	COUNT & DEVICES				
allows you to control which features are available. To start Guided Access, triple-click the Home button in the		Ad	count	>	Л.		
app you want to use.	Night Shift	Off > D	evices	<b>,</b>			
Passcode Settings							
	Auto-Lock	Never >	P SETTINGS				
Time Limits >		A	ito Standby When Restart Ap	op 🔵	\$	START	
	Raise to wake	A	ld Score By Game				
Accessibility Shortcut		0	Pow Poll Mark				
When you triple-click the Home button during a Guided	Text Size	>					
displayed.	Bold Text		ESENTATION MODE				
Display Auto-Lock Default >							
Set how long it takes your iPhone to automatically lock	DISPLAY ZOOM		Custom Presentation	on View Logo			
during a Guided Access session.	View	Standard >					



In eyes<sup>3</sup> CAMERA recording mode:

- 1. press the Recording Device's Home Button three (3) times to START 'Guided Access'
- 2. repeat press the Recording Device's Home Button three (3) times to STOP 'Guided Access' {you will need the Recording Device's PIN to proceed}

## USER GUIDE Appendix - Conserve Battery Life ' eyes<sup>3®</sup>

To minimise battery drain, whenever the Recording Devices are not deployed or are being stored, certain settings in the Recording Devices are recommended; including the ones illustrated below.



Avoid activating or running applications/functions that has a high battery drain, such as:

- 1. Screen on High Brightness
- 2. Always-on Screen Time (i.e. Auto-Lock set to NEVER)
- 3. Connectivity Setting ON (Wi-Fi, Bluetooth, Personal Hotspot, etc.)
- 4. Camera/Video Recording