Ruaidhri Molloy portfolio

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Github

Deadball

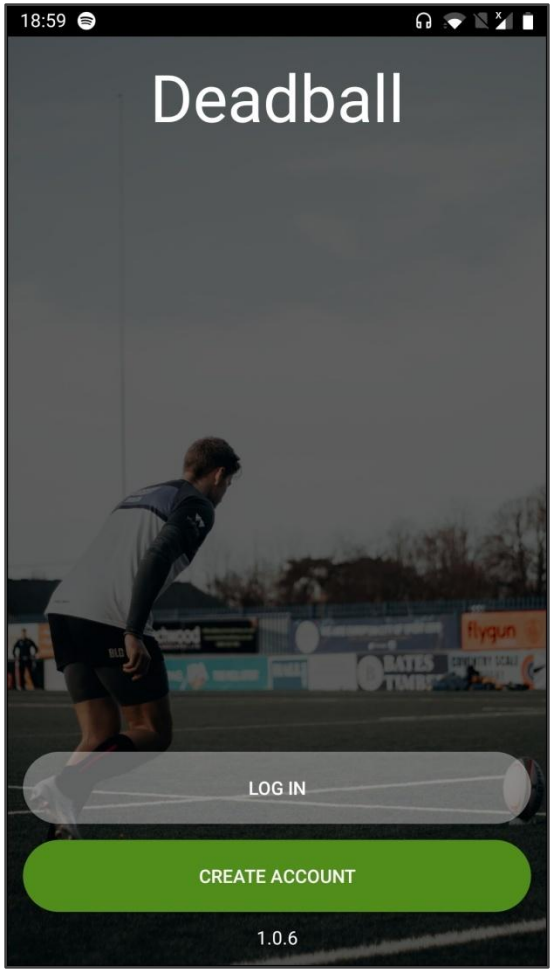
- **Personal Side Project**
- **Platform**: Android (Kotlin)
- **Date**: 2022
- **Role**: Sole Developer – From Scratch

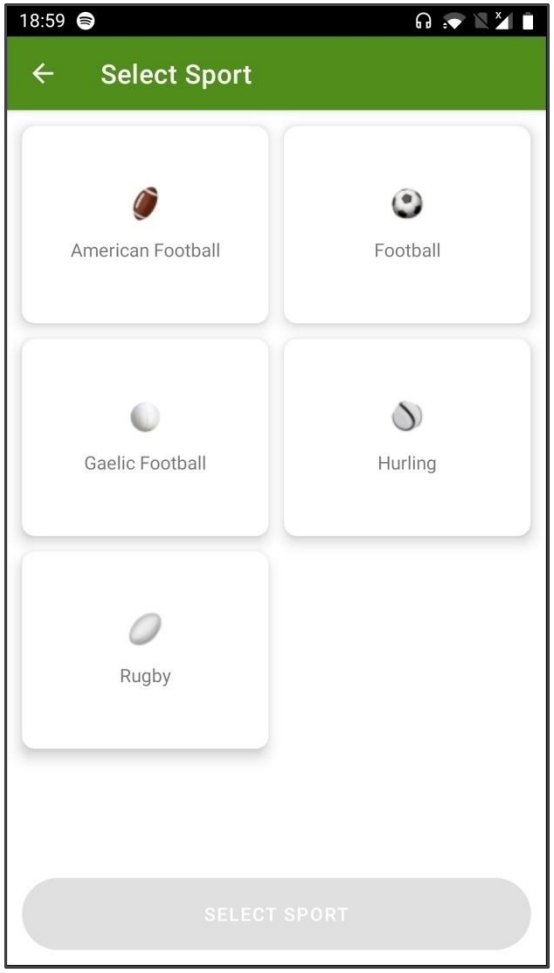
Sports analytics app to create shot maps for players and teams to see what areas of the field need improvement. Supports rugby, football, American football, gaelic football and hurling

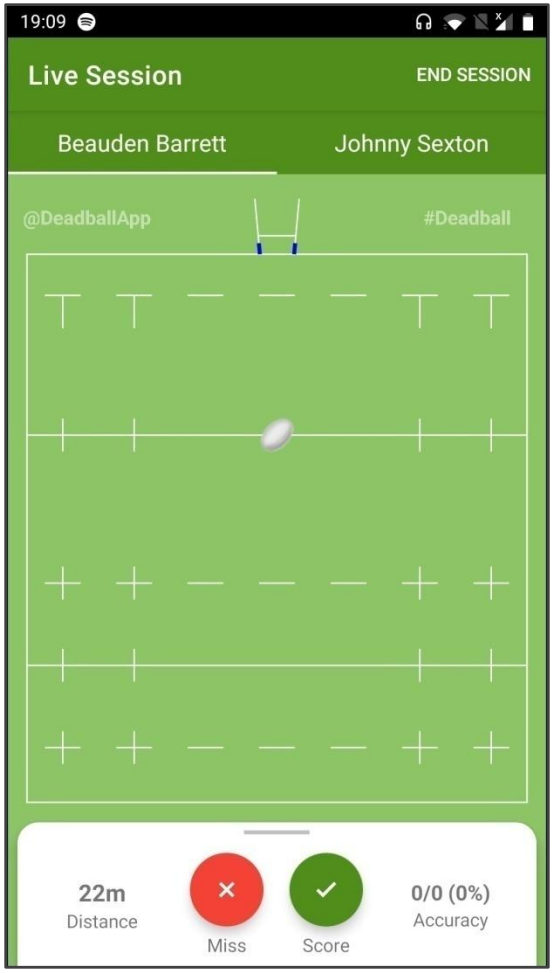
GET IT ON Google Play

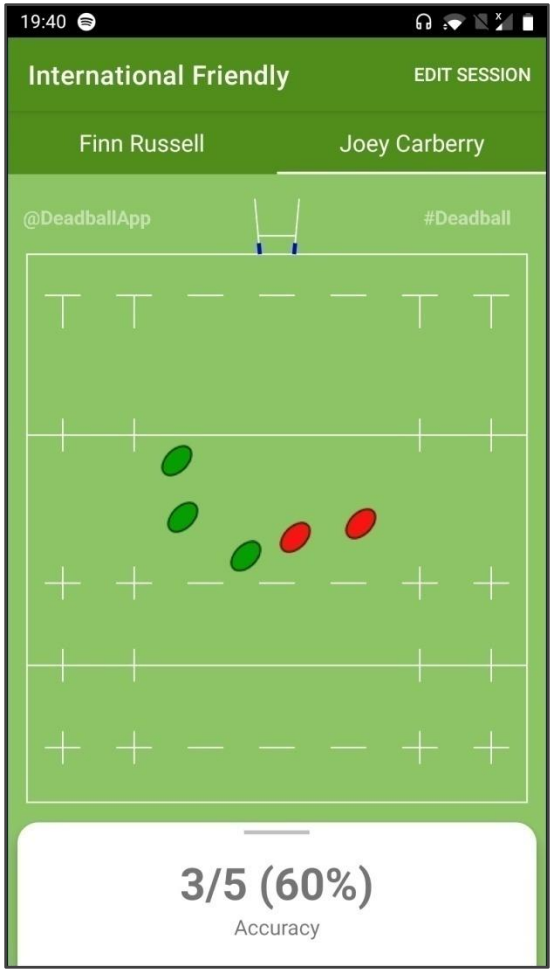
YouTube

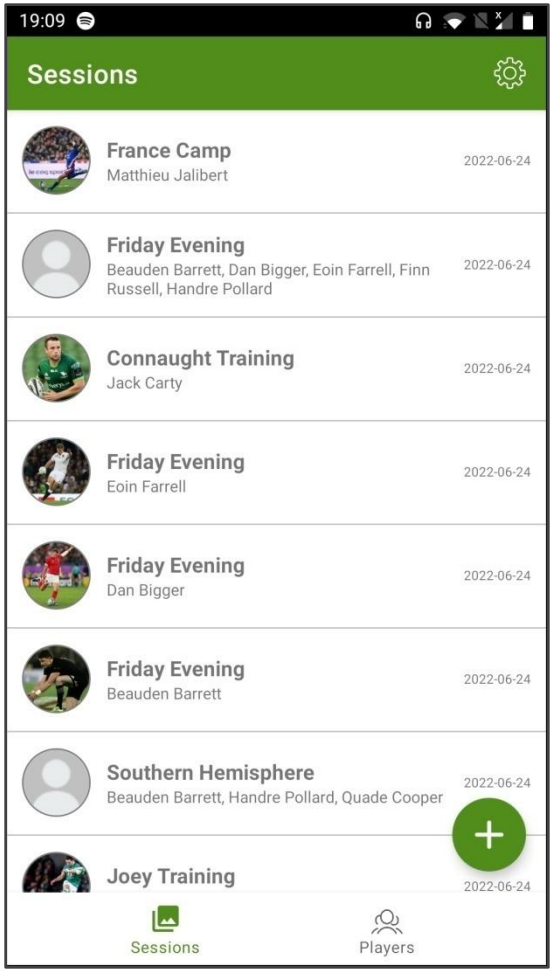
twitter

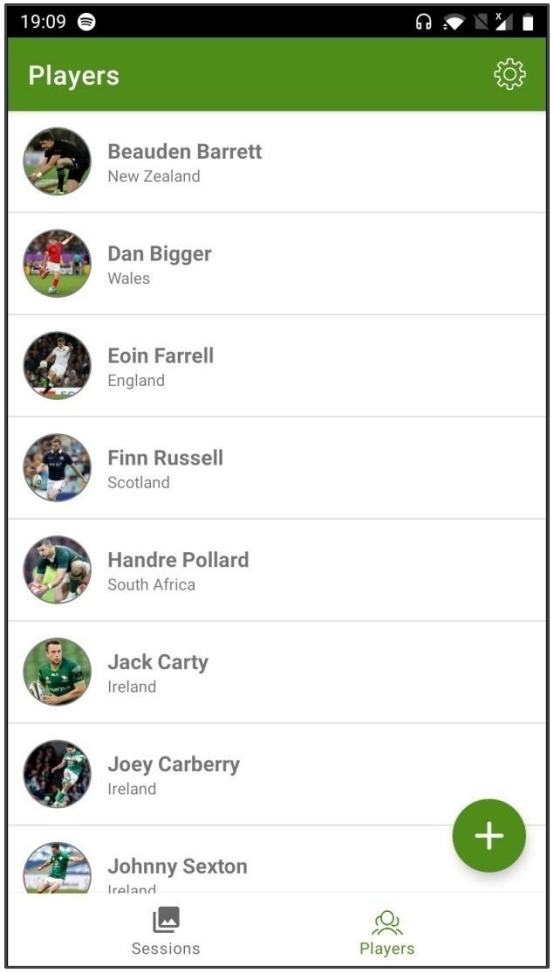


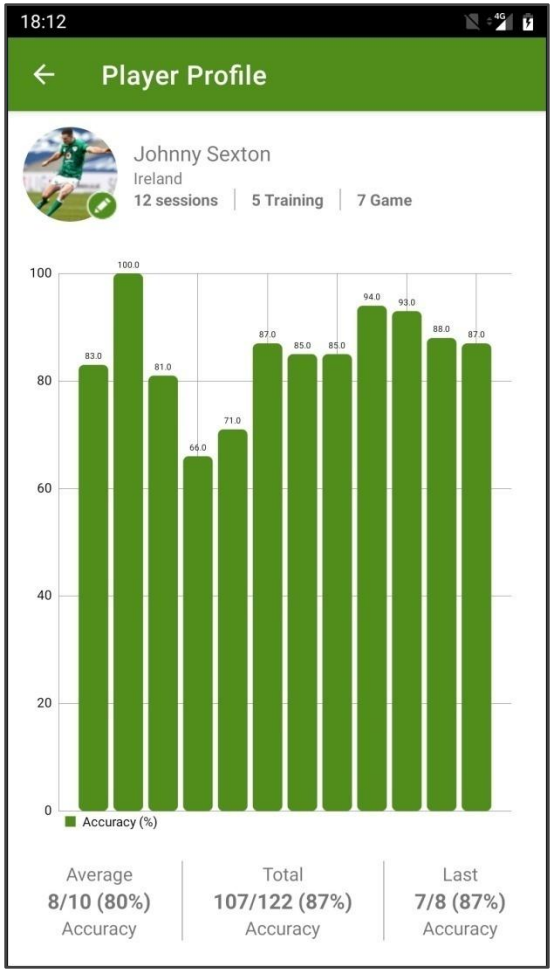

18:59
Select Sport
American Football
Football
Gaelic Football
Hurling
Rugby
SELECT SPORT

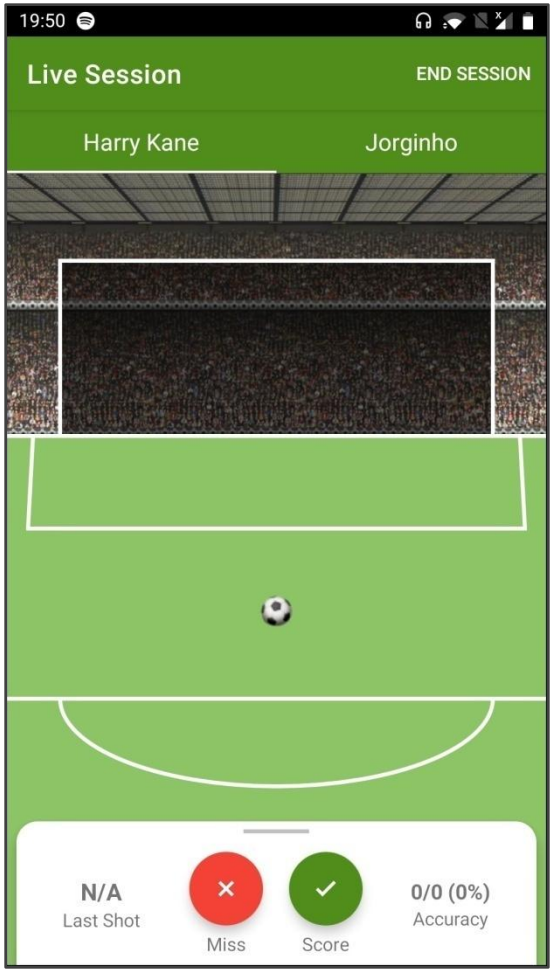

19:09
Live Session
END SESSION
Beauden Barrett
Johnny Sexton
@DeadballApp
#Deadball
22m
Distance
Miss
Score
0/0 (0%)
Accuracy

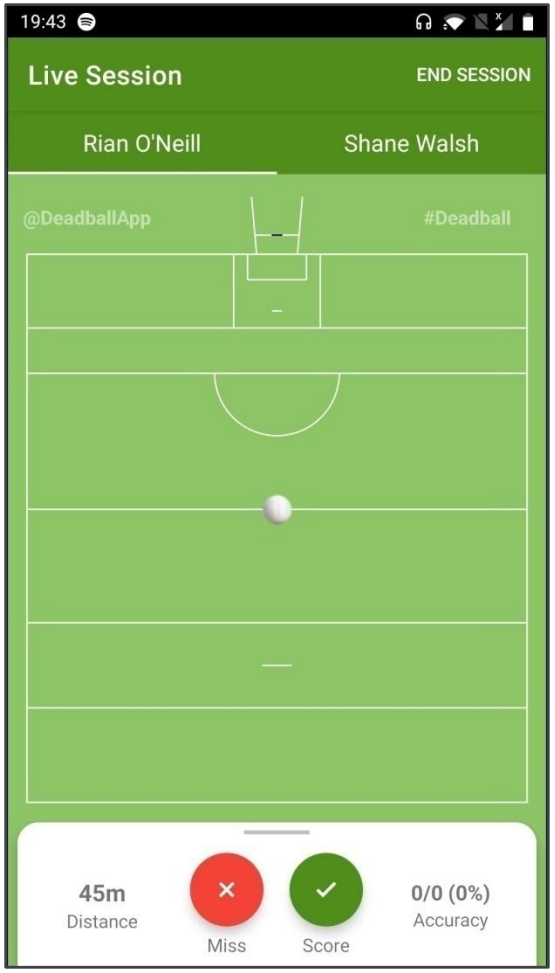

19:40
International Friendly
EDIT SESSION
Finn Russell
Joey Carberry
@DeadballApp
#Deadball
3/5 (60%)
Accuracy

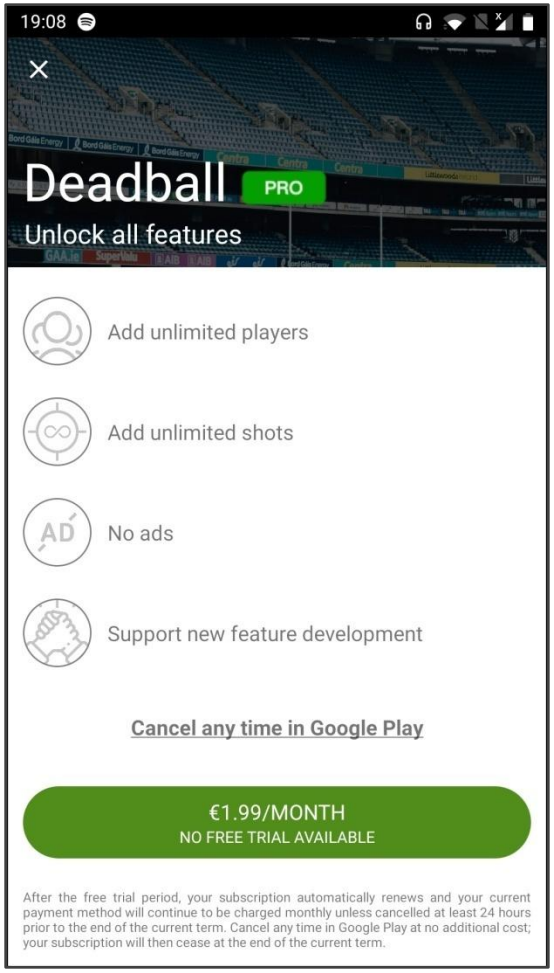

19:09
Sessions
France Camp
Matthieu Jalibert
2022-06-24
Friday Evening
Beauden Barrett, Dan Bigger, Eoin Farrell, Finn Russell, Handre Pollard
2022-06-24
Connaught Training
Jack Carty
2022-06-24
Friday Evening
Eoin Farrell
2022-06-24
Friday Evening
Dan Bigger
2022-06-24
Friday Evening
Beauden Barrett
2022-06-24
Southern Hemisphere
Beauden Barrett, Handre Pollard, Quade Cooper
2022-06-24
Joey Training
2022-06-24
Sessions
Players


19:09
Players
Beauden Barrett
New Zealand
Dan Bigger
Wales
Eoin Farrell
England
Finn Russell
Scotland
Handre Pollard
South Africa
Jack Carty
Ireland
Joey Carberry
Ireland
Johnny Sexton
Sessions
Players


18:12
Player Profile
Johnny Sexton
Ireland
12 sessions
5 Training
7 Game
100
80
60
40
20
0
83.0
100.0
81.0
66.0
71.0
87.0
85.0
85.0
94.0
93.0
88.0
87.0
Accuracy (%)
Average
8/10 (80%)
Accuracy
Total
107/122 (87%)
Accuracy
Last
7/8 (87%)
Accuracy


19:50
Live Session
END SESSION
Harry Kane
Jorginho
N/A
Last Shot
Miss
Score
0/0 (0%)
Accuracy


19:43
Live Session
END SESSION
Rian O'Neill
Shane Walsh
@DeadballApp
#Deadball
45m
Distance
Miss
Score
0/0 (0%)
Accuracy


19:08
Deadball
PRO
Unlock all features
Add unlimited players
Add unlimited shots
No ads
Support new feature development
Cancel any time in Google Play
€1.99/MONTH
NO FREE TRIAL AVAILABLE
After the free trial period, your subscription automatically renews and your current payment method will continue to be charged monthly unless cancelled at least 24 hours prior to the end of the current term. Cancel any time in Google Play at no additional cost; your subscription will then cease at the end of the current term.

Team15

- **Personal Side Project**
- **Platform**: Android (Kotlin)
- **Date**: 2019 (2022 refactored)
- **Role**: Sole Developer – From Scratch

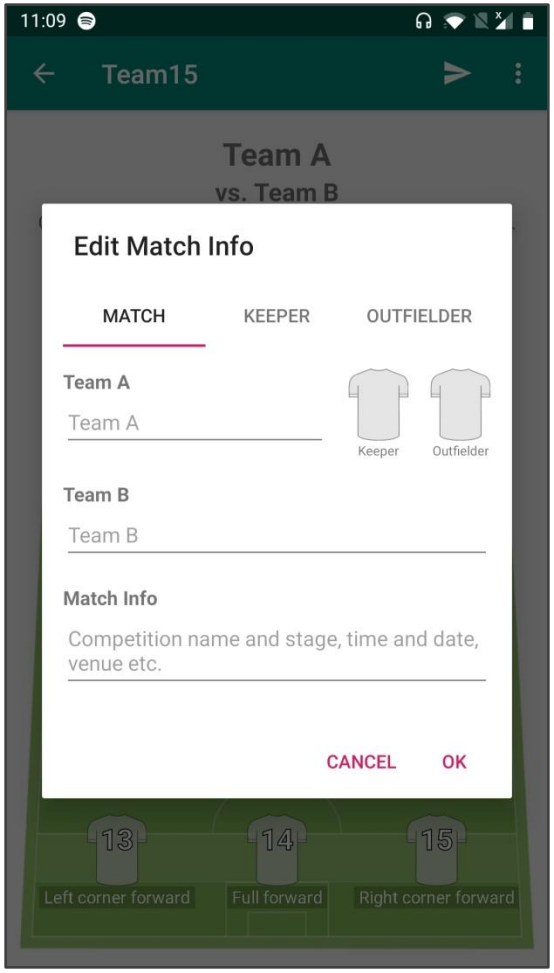
Gaelic football/hurling team builder app to share selection on game-day via social media

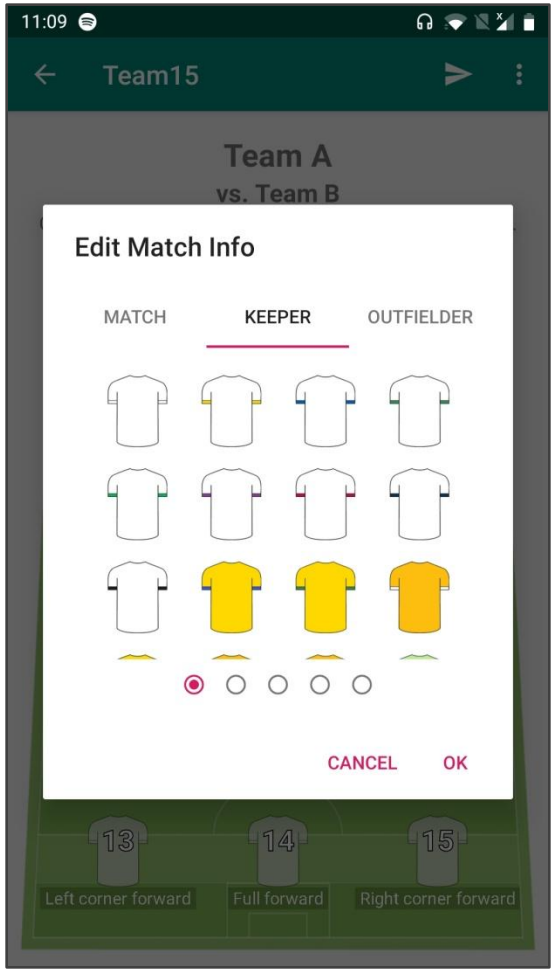
GET IT ON Google Play

YouTube

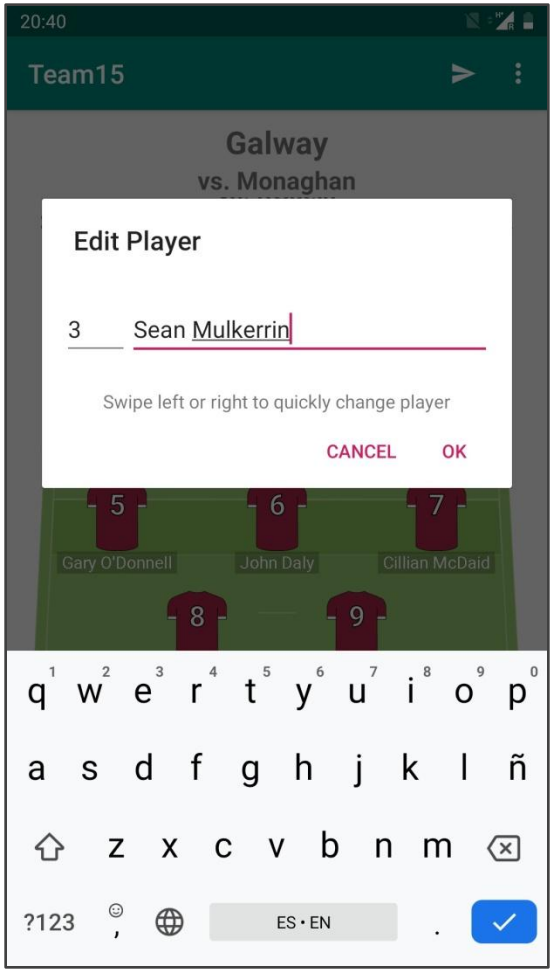
twitter

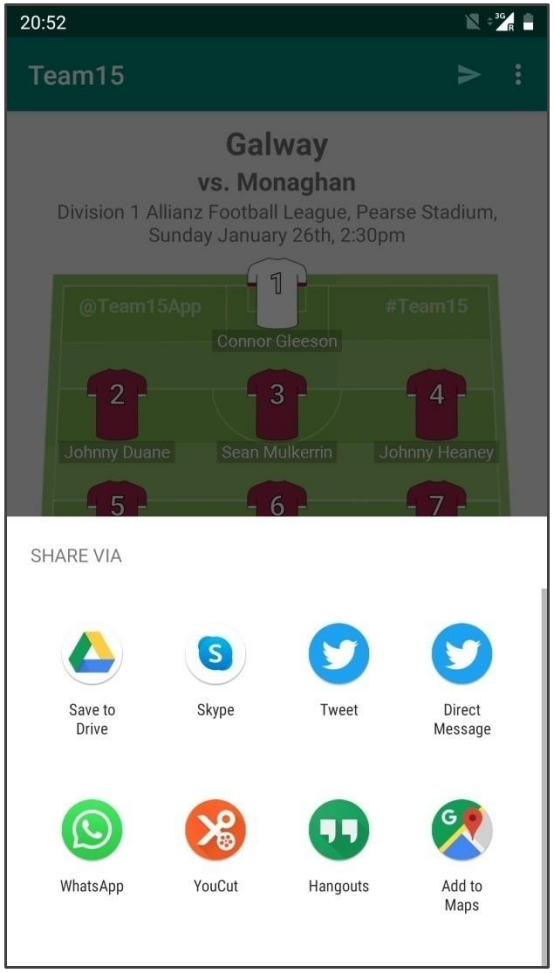
20:43
Team15
Insert Team A
vs. Insert Team Name B
Insert competition name and stage, time and date, venue etc.
@Team15App
#Team15
1
Goalkeeper
2
Left corner back
3
Full back
4
Right corner back
5
Left half back
6
Center back
7
Right half back
8
Midfield A
9
Midfield B
10
Left half forward
11
Center forward
12
Right half forward
13
Left corner forward
14
Full forward
15
Right corner forward


11:09
Team15
Team A
vs. Team B
Edit Match Info
MATCH
KEEPER
OUTFIELDER
Team A
Team A
Keeper
Outfielder
Team B
Team B
Match Info
Competition name and stage, time and date, venue etc.
CANCEL
OK
13
Left corner forward
14
Full forward
15
Right corner forward


11:09
Team15
Team A
vs. Team B
Edit Match Info
MATCH
KEEPER
OUTFIELDER
CANCEL
OK
13
Left corner forward
14
Full forward
15
Right corner forward

20:40
Team15
Galway
vs. Monaghan
Division 1 Allianz Football League, Pearse Stadium,
Sunday January 26th, 2:30pm
@Team15App
#Team15
1
Connor Gleeson
2
Johnny Duane
3
Sean Mulkerrin
4
Johnny Heaney
5
Gary O'Donnell
6
John Daly
7
Cillian McDaid
8
Tom Flynn
9
Cein D'Arcy
10
Michael Boyle
11
Paul Conroy
12
Michael Daly
13
Robert Finnerty
14
Shane Walsh
15
Adrian Varley

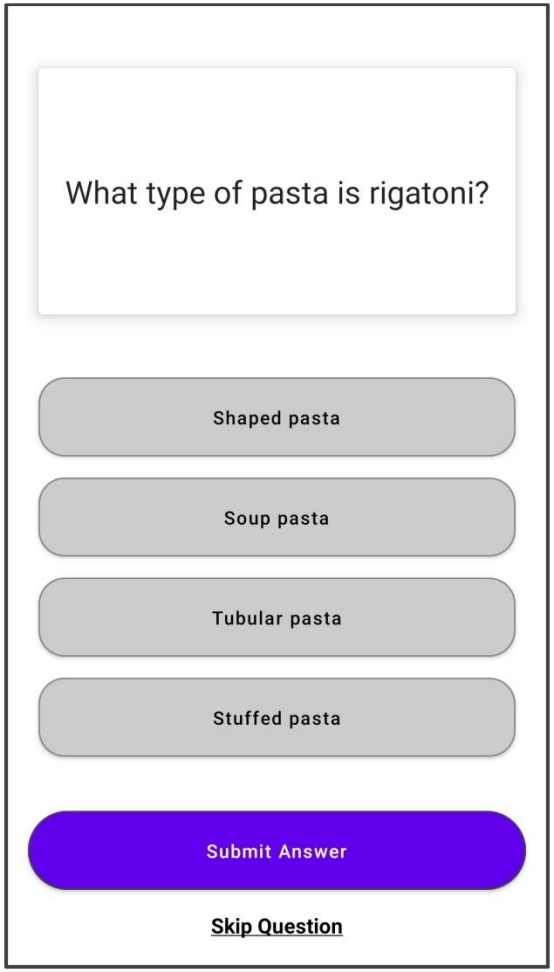

20:40
Team15
Galway
vs. Monaghan
Edit Player
3
Sean Mulkerrin
Swipe left or right to quickly change player
CANCEL
OK
Gary O'Donnell
John Daly
Cillian McDaid
q w e r t y u i o p
a s d f g h j k l ñ
z x c v b n m
?123
ES • EN


20:52
Team15
Galway
vs. Monaghan
Division 1 Allianz Football League, Pearse Stadium,
Sunday January 26th, 2:30pm
@Team15App
#Team15
Connor Gleeson
Johnny Duane
Sean Mulkerrin
Johnny Heaney
SHARE VIA
Save to Drive
Skype
Tweet
Direct Message
WhatsApp
YouCut
Hangouts
Add to Maps

Daily Doozy

- **Personal Side Project**
- **Platform**: Android (Kotlin)
- **Date**: 2022
- **Role**: Sole Developer – From Scratch

Multi-choice trivia app



What type of pasta is rigatoni?

Shaped pasta

Soup pasta

Tubular pasta

Stuffed pasta

Submit Answer

Skip Question

What type of pasta is rigatoni?

Shaped pasta

Soup pasta

Tubular pasta

Stuffed pasta

Submit Answer

Incorrect

Skip Question

Which date on the Christian calendar marks The Epiphany, when Jesus, Mary and Joseph met The Three Wise Men?

January 6th

October 19th

June 20th

December 1st

Submit Answer

Correct

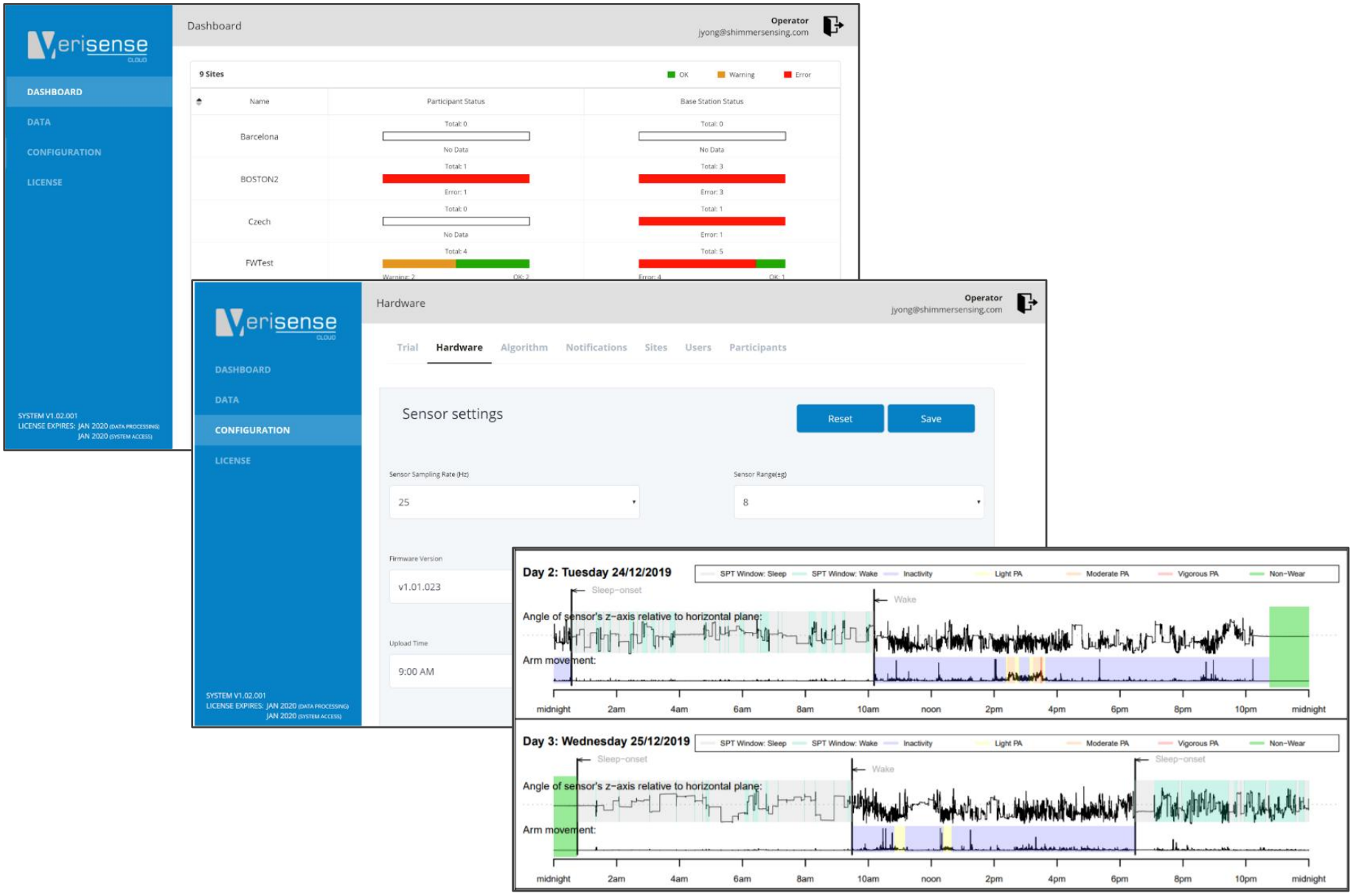
Skip Question

Verisense

- **Developed at:** Shimmer Research
- **Platform**: Windows (Java)
- **Date**: 2019-2022
- **Role**: Contributor (Cloud)

Wearable sensing platform designed specifically for clinical trials

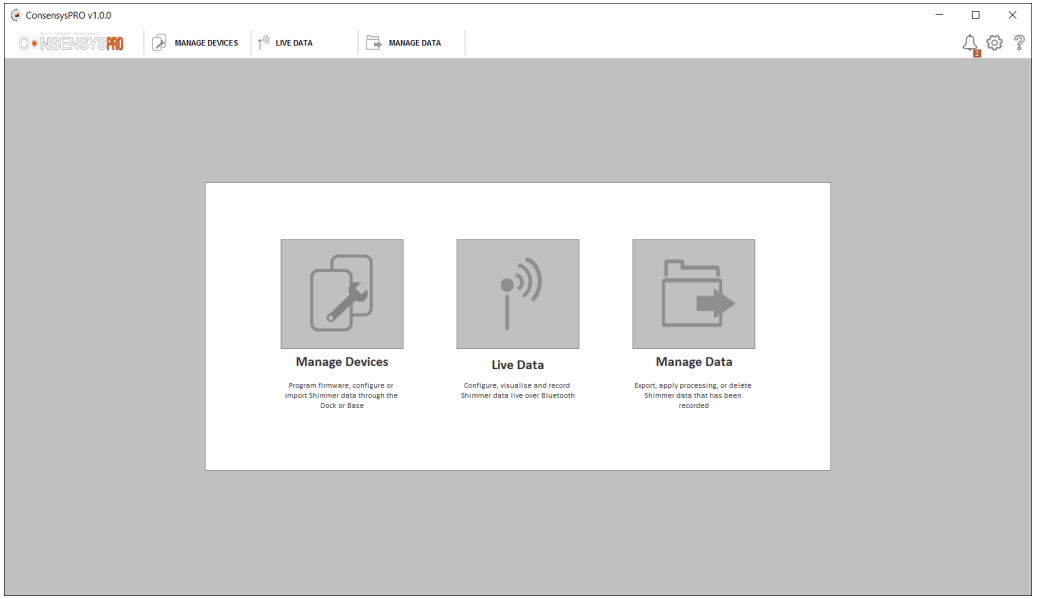
chrome YouTube


Verisense
CLOUD
DASHBOARD
DATA
CONFIGURATION
LICENSE
SYSTEM V1.02.001
LICENSE EXPIRES: JAN 2020 (DATA PROCESSING)
JAN 2020 (SYSTEM ACCESS)
Dashboard
Operator
jyong@shimmersensing.com
9 Sites
OK
Warning
Error
Name
Participant Status
Base Station Status
Barcelona
Total: 0
No Data
Total: 0
No Data
BOSTON2
Total: 1
Error: 1
Total: 3
Error: 3
Czech
Total: 0
No Data
Total: 1
Error: 1
FWTest
Total: 4
Warning: 2
OK: 2
Total: 5
Error: 4
OK: 1
Hardware
Trial
Hardware
Algorithm
Notifications
Sites
Users
Participants
Sensor settings
Reset
Save
Sensor Sampling Rate (Hz)
25
Sensor Range(±g)
8
Firmware Version
v1.01.023
Upload Time
9:00 AM
Day 2: Tuesday 24/12/2019
SPT Window: Sleep
SPT Window: Wake
Inactivity
Light PA
Moderate PA
Vigorous PA
Non-Wear
Sleep-onset
Wake
Angle of sensor's z-axis relative to horizontal plane:
Arm movement:
midnight
2am
4am
6am
8am
10am
noon
2pm
4pm
6pm
8pm
10pm
midnight
Day 3: Wednesday 25/12/2019
SPT Window: Sleep
SPT Window: Wake
Inactivity
Light PA
Moderate PA
Vigorous PA
Non-Wear
Sleep-onset
Wake
Sleep-onset
Angle of sensor's z-axis relative to horizontal plane:
Arm movement:
midnight
2am
4am
6am
8am
10am
noon
2pm
4pm
6pm
8pm
10pm
midnight

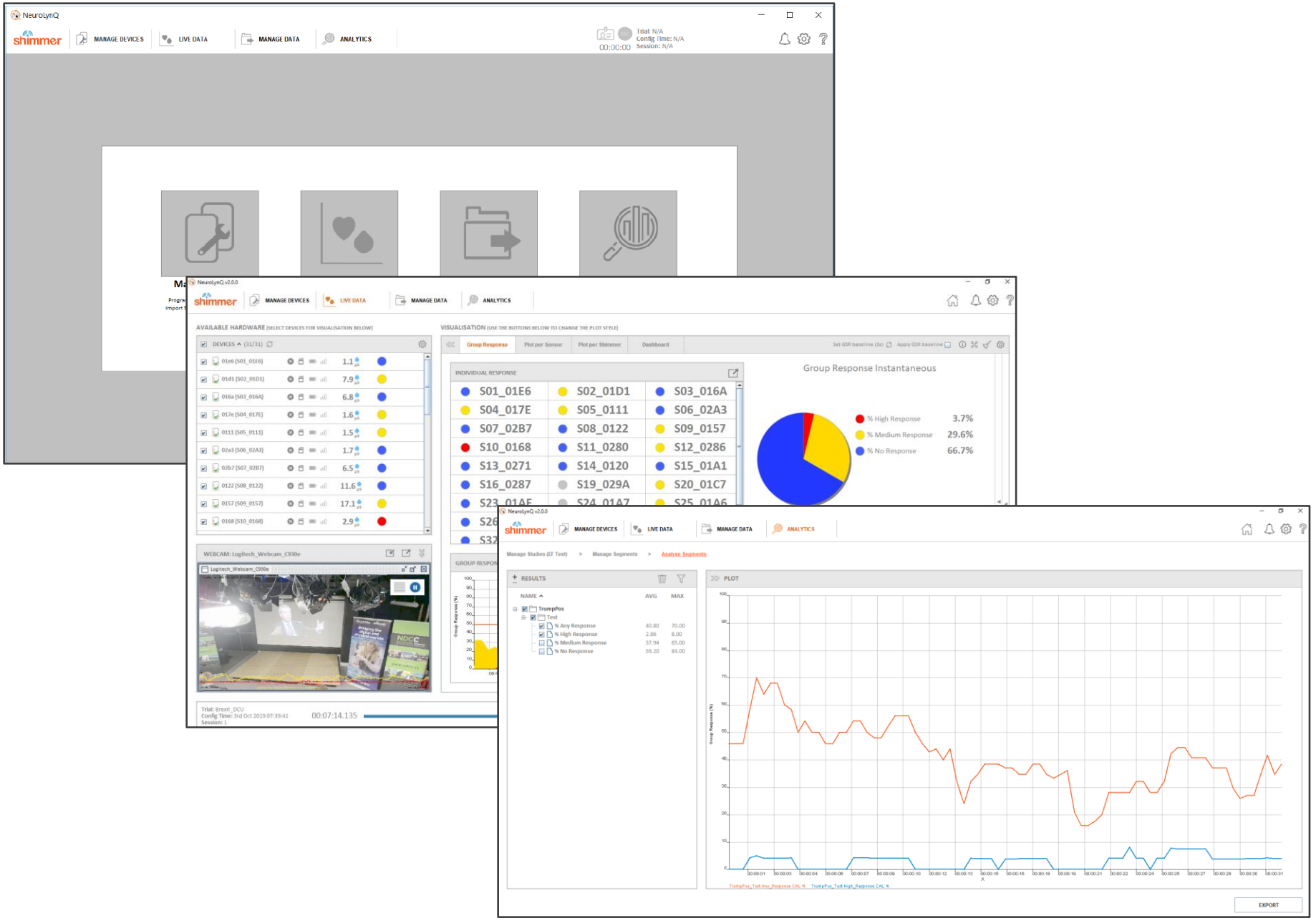
NeuroLynQ

- **Developed at:** Shimmer Research
- **Platform**: Windows (Java)
- **Date**: 2018
- **Role**: Contributor

App to measure the emotional response of a group of up to 45+ people simultaneously through use of GSR and PPG sensor



chrome YouTube

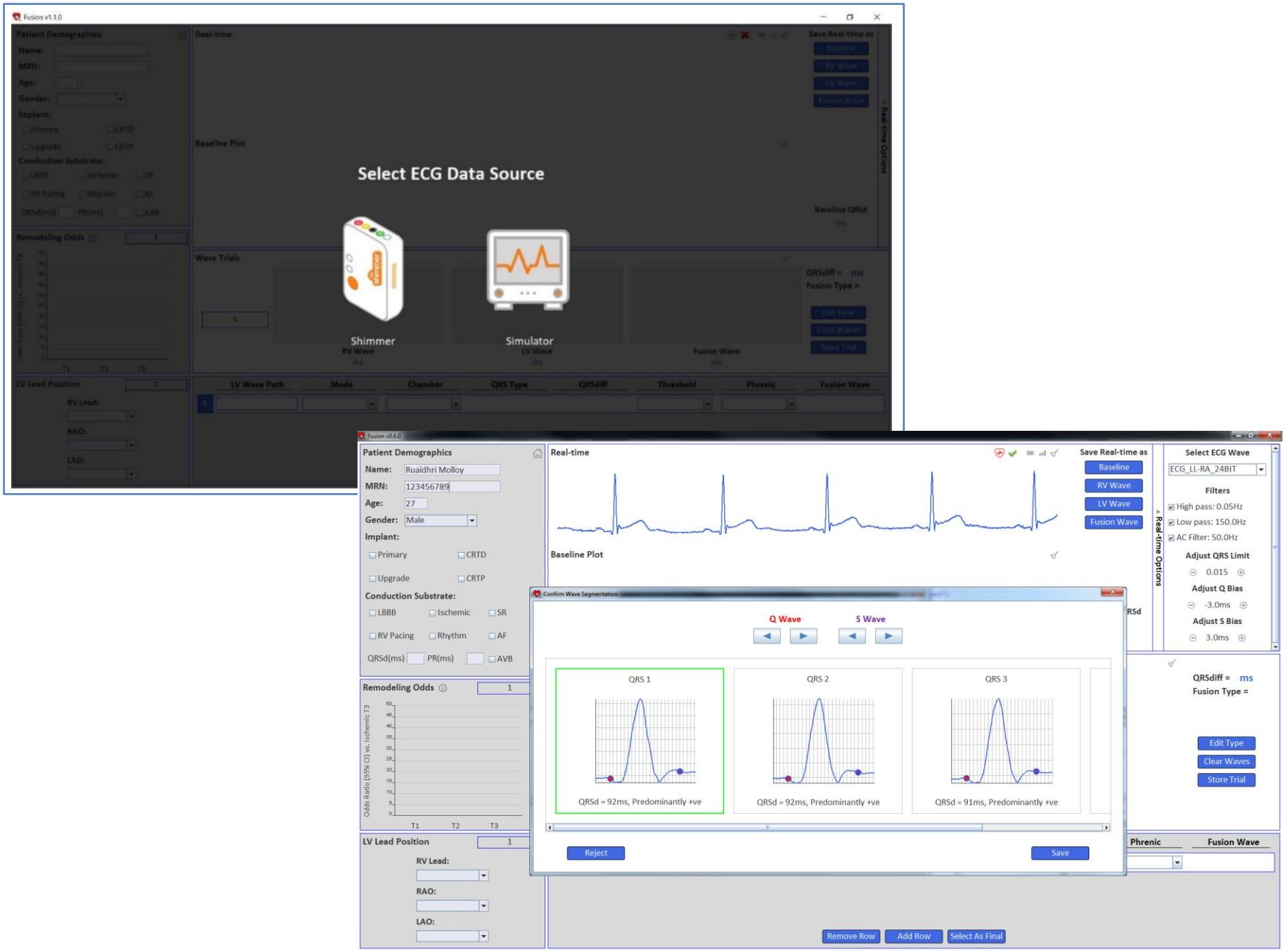

NeuroLynQ
shimmer
MANAGE DEVICES
LIVE DATA
MANAGE DATA
ANALYTICS
Trial: N/A
Config Time: N/A
Session: N/A
00:00:00
AVAILABLE HARDWARE (SELECT DEVICES FOR VISUALISATION BELOW)
VISUALISATION (USE THE BUTTONS BELOW TO CHANGE THE PLOT STYLE)
Group Response
Plot per Sensor
Plot per Shimmer
Dashboard
INDIVIDUAL RESPONSE
S01_01E6
S02_01D1
S03_016A
S04_017E
S05_0111
S06_02A3
S07_02B7
S08_0122
S09_0157
S10_0168
S11_0280
S12_0286
S13_0271
S14_0120
S15_01A1
S16_0287
S19_029A
S20_01C7
Group Response Instantaneous
% High Response 3.7%
% Medium Response 29.6%
% No Response 66.7%
WEBCAM: Logitech_Webcam_C930e
Trial: Brexit_DCU
Config Time: 3rd Oct 2019 07:39:41
Session: 1
00:07:14.135
Manage Studies (EF Test) > Manage Segments > Analyse Segments
RESULTS
NAME
AVG
MAX
TrumpPos
Test
% Any Response 40.80 70.00
% High Response 2.86 8.00
% Medium Response 37.94 65.00
% No Response 59.20 84.00
PLOT
EXPORT

Fusion – CIMIT

- **Developed at:** Shimmer Research
- **Platform**: Windows (Java)
- **Date**: 2017
- **Role**: Co-Lead Developer

App to assist clinicians with implant of a Cardiac Resynchronization Therapy (CRT) device and with periodic therapy titration using a single ECG sensor.

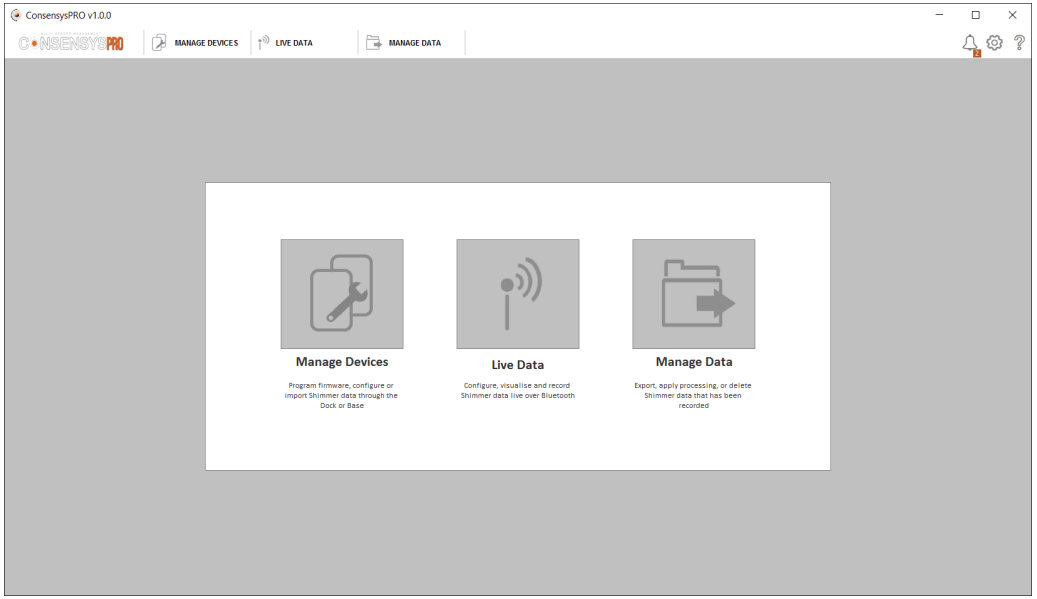
chrome


Fusion v1.1.0
Patient Demographics
Name:
MRN:
Age:
Gender:
Implant:
Conduction Substrate:
Real-time
Baseline Plot
Save Real-time as
Select ECG Data Source
Shimmer
Simulator
Remodeling Odds
Wave Trials
QRSdiff = ms
Fusion Type =
LV Lead Position
RV Lead:
RAO:
LAO:
LV Wave Path
Mode
Chamber
QRS Type
QRSdiff
Threshold
Phrenic
Fusion Wave
Fusion v0.6.0
Ruaidhri Molloy
123456789
27
Male
Primary
CRTD
Upgrade
CRTP
LBBB
Ischemic
SR
RV Pacing
Rhythm
AF
QRSd(ms)
PR(ms)
AVB
Baseline
RV Wave
LV Wave
Fusion Wave
Select ECG Wave
ECG_LL-RA_24BIT
Filters
High pass: 0.05Hz
Low pass: 150.0Hz
AC Filter: 50.0Hz
Adjust QRS Limit
0.015
Adjust Q Bias
-3.0ms
Adjust S Bias
3.0ms
Real-time Options
Confirm Wave Segmentation
Q Wave
S Wave
QRS 1
QRS 2
QRS 3
QRSd = 92ms, Predominantly +ve
QRSd = 92ms, Predominantly +ve
QRSd = 91ms, Predominantly +ve
Reject
Save
Edit Type
Clear Waves
Store Trial
Remove Row
Add Row
Select As Final

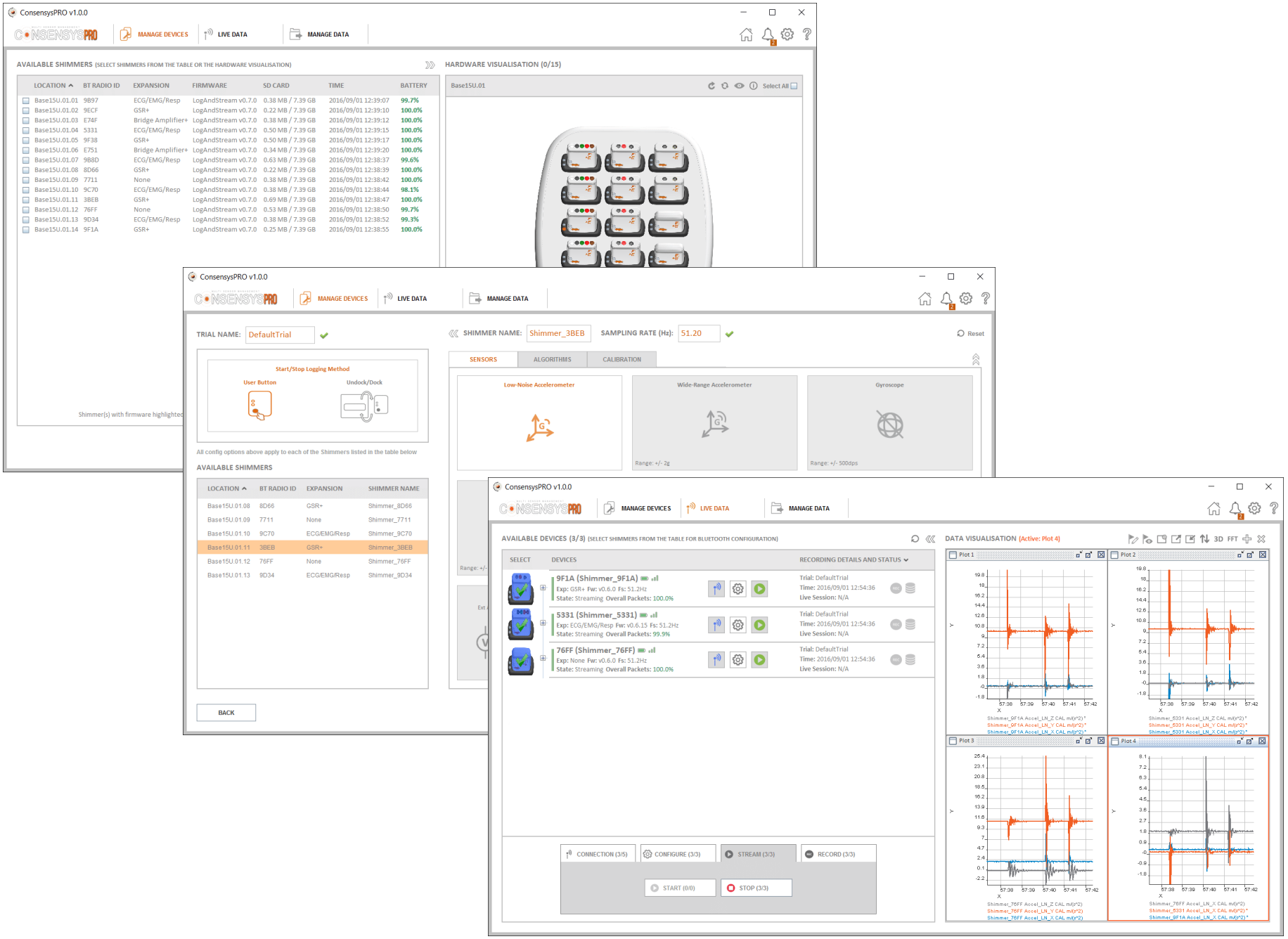
Consensys

- **Developed at:** Shimmer Research
- **Platform**: Windows (Java)
- **Date**: 2016
- **Role**: Contributor

All-in-one multi Shimmer sensor management software supporting firmware updates, configuration, data collection, storage and processing



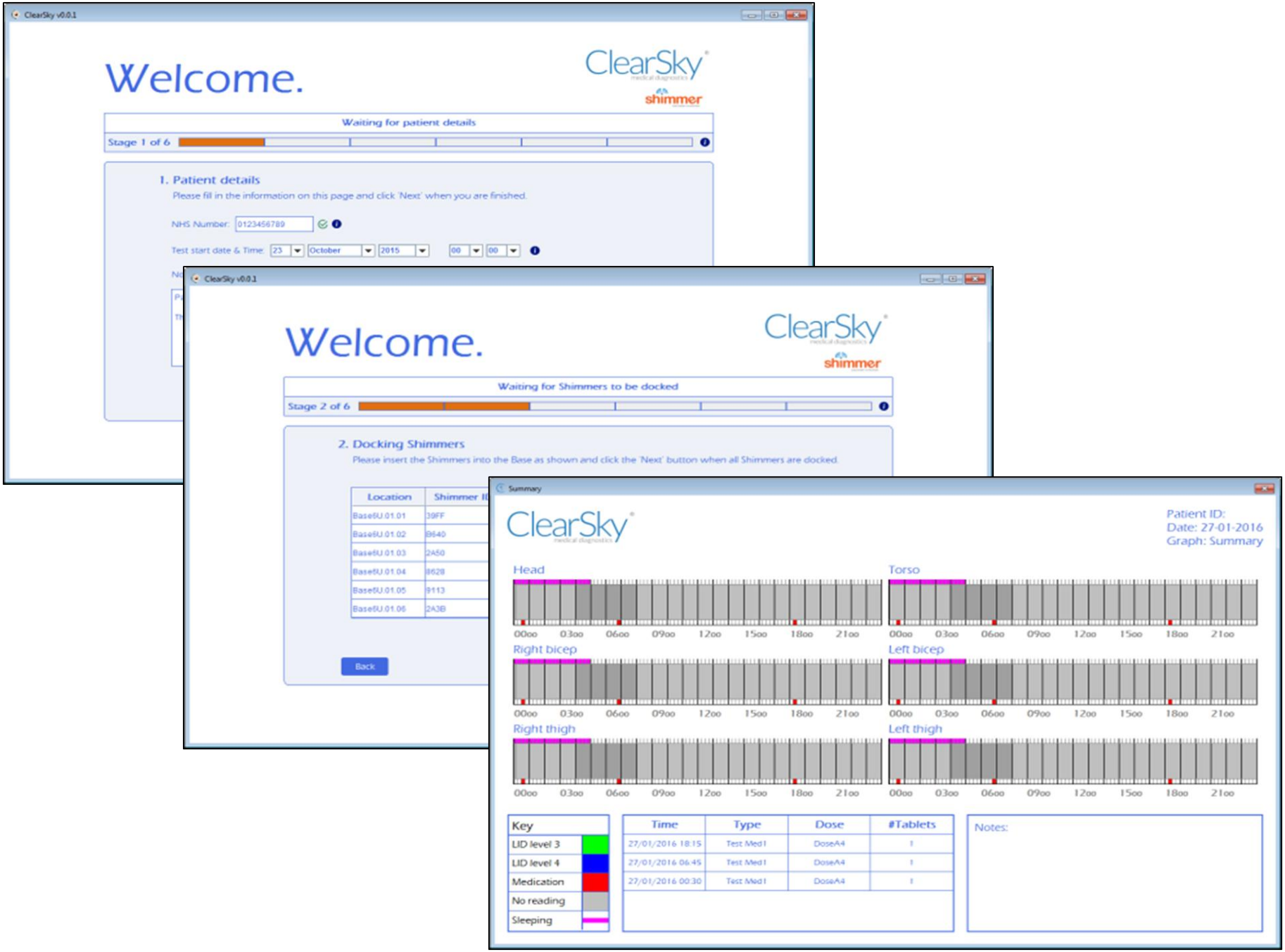
chrome YouTube


ConsensysPRO v1.0.0
MANAGE DEVICES
LIVE DATA
MANAGE DATA
AVAILABLE SHIMMERS (SELECT SHIMMERS FROM THE TABLE OR THE HARDWARE VISUALISATION)
HARDWARE VISUALISATION (0/15)
LOCATION
BT RADIO ID
EXPANSION
FIRMWARE
SD CARD
TIME
BATTERY
Base15U.01.01 9B97 ECG/EMG/Resp LogAndStream v0.7.0 0.38 MB / 7.39 GB 2016/09/01 12:39:07 99.7%
Base15U.01.02 9ECF GSR+ LogAndStream v0.7.0 0.22 MB / 7.39 GB 2016/09/01 12:39:10 100.0%
Base15U.01.03 E74F Bridge Amplifier+ LogAndStream v0.7.0 0.38 MB / 7.39 GB 2016/09/01 12:39:12 100.0%
Base15U.01.04 5331 ECG/EMG/Resp LogAndStream v0.7.0 0.50 MB / 7.39 GB 2016/09/01 12:39:15 100.0%
Base15U.01.05 9F38 GSR+ LogAndStream v0.7.0 0.50 MB / 7.39 GB 2016/09/01 12:39:17 100.0%
Base15U.01.06 E751 Bridge Amplifier+ LogAndStream v0.7.0 0.34 MB / 7.39 GB 2016/09/01 12:39:20 100.0%
Base15U.01.07 9B8D ECG/EMG/Resp LogAndStream v0.7.0 0.63 MB / 7.39 GB 2016/09/01 12:38:37 99.6%
Base15U.01.08 8D66 GSR+ LogAndStream v0.7.0 0.22 MB / 7.39 GB 2016/09/01 12:38:39 100.0%
Base15U.01.09 7711 None LogAndStream v0.7.0 0.38 MB / 7.39 GB 2016/09/01 12:38:42 100.0%
Base15U.01.10 9C70 ECG/EMG/Resp LogAndStream v0.7.0 0.38 MB / 7.39 GB 2016/09/01 12:38:44 98.1%
Base15U.01.11 3BEB GSR+ LogAndStream v0.7.0 0.69 MB / 7.39 GB 2016/09/01 12:38:47 100.0%
Base15U.01.12 76FF None LogAndStream v0.7.0 0.53 MB / 7.39 GB 2016/09/01 12:38:50 99.7%
Base15U.01.13 9D34 ECG/EMG/Resp LogAndStream v0.7.0 0.38 MB / 7.39 GB 2016/09/01 12:38:52 99.3%
Base15U.01.14 9F1A GSR+ LogAndStream v0.7.0 0.25 MB / 7.39 GB 2016/09/01 12:38:55 100.0%
Base15U.01
Select All
Shimmer(s) with firmware highlighted
ConsensysPRO v1.0.0
MANAGE DEVICES
LIVE DATA
MANAGE DATA
TRIAL NAME: DefaultTrial
SHIMMER NAME: Shimmer_3BEB
SAMPLING RATE (Hz): 51.20
Reset
Start/Stop Logging Method
User Button
Undock/Dock
All config options above apply to each of the Shimmers listed in the table below
AVAILABLE SHIMMERS
SENSORS
ALGORITHMS
CALIBRATION
Low-Noise Accelerometer
Wide-Range Accelerometer
Gyroscope
Range: +/- 2g
Range: +/- 500dps
LOCATION
BT RADIO ID
EXPANSION
SHIMMER NAME
Base15U.01.08 8D66 GSR+ Shimmer_8D66
Base15U.01.09 7711 None Shimmer_7711
Base15U.01.10 9C70 ECG/EMG/Resp Shimmer_9C70
Base15U.01.11 3BEB GSR+ Shimmer_3BEB
Base15U.01.12 76FF None Shimmer_76FF
Base15U.01.13 9D34 ECG/EMG/Resp Shimmer_9D34
BACK
ConsensysPRO v1.0.0
MANAGE DEVICES
LIVE DATA
MANAGE DATA
AVAILABLE DEVICES (3/3) (SELECT SHIMMERS FROM THE TABLE FOR BLUETOOTH CONFIGURATION)
DATA VISUALISATION (Active: Plot 4)
SELECT
DEVICES
RECORDING DETAILS AND STATUS
9F1A (Shimmer_9F1A)
Exp: GSR+ Fw: v0.6.0 Fs: 51.2Hz
State: Streaming Overall Packets: 100.0%
Trial: DefaultTrial
Time: 2016/09/01 12:54:36
Live Session: N/A
5331 (Shimmer_5331)
Exp: ECG/EMG/Resp Fw: v0.6.15 Fs: 51.2Hz
State: Streaming Overall Packets: 99.9%
Trial: DefaultTrial
Time: 2016/09/01 12:54:36
Live Session: N/A
76FF (Shimmer_76FF)
Exp: None Fw: v0.6.0 Fs: 51.2Hz
State: Streaming Overall Packets: 100.0%
Trial: DefaultTrial
Time: 2016/09/01 12:54:36
Live Session: N/A
CONNECTION (3/5)
CONFIGURE (3/3)
STREAM (3/3)
RECORD (3/3)
START (0/0)
STOP (3/3)
Plot 1
Plot 2
Plot 3
Plot 4
Shimmer_9F1A Accel_LN_Z CAL m/(s^2)
Shimmer_9F1A Accel_LN_Y CAL m/(s^2)
Shimmer_9F1A Accel_LN_X CAL m/(s^2)
Shimmer_5331 Accel_LN_Z CAL m/(s^2)
Shimmer_5331 Accel_LN_Y CAL m/(s^2)
Shimmer_5331 Accel_LN_X CAL m/(s^2)
Shimmer_76FF Accel_LN_Z CAL m/(s^2)
Shimmer_76FF Accel_LN_Y CAL m/(s^2)
Shimmer_76FF Accel_LN_X CAL m/(s^2)

LID Monitor - ClearSky

- **Developed at:** Shimmer Research
- **Platform**: Windows (Java)
- **Date**: 2015
- **Role**: Co-Lead Developer

App to monitor the side effects of medication for Parkinson's sufferers using six IMU sensors


ClearSky v0.0.1
Welcome.
ClearSky
medical diagnostics
shimmer
Waiting for patient details
Stage 1 of 6
1. Patient details
Please fill in the information on this page and click 'Next' when you are finished.
NHS Number: 0123456789
Test start date & Time: 23 October 2015 00 00
ClearSky v0.0.1
Welcome.
ClearSky
medical diagnostics
shimmer
Waiting for Shimmers to be docked
Stage 2 of 6
2. Docking Shimmers
Please insert the Shimmers into the Base as shown and click the 'Next' button when all Shimmers are docked.
Location
Shimmer ID
Base6U.01.01 39FF
Base6U.01.02 8640
Base6U.01.03 2A50
Base6U.01.04 8628
Base6U.01.05 9113
Base6U.01.06 2A3B
Back
Summary
ClearSky
medical diagnostics
Patient ID:
Date: 27-01-2016
Graph: Summary
Head
Torso
Right bicep
Left bicep
Right thigh
Left thigh
00oo 03oo 06oo 09oo 12oo 15oo 18oo 21oo
Key
LID level 3
LID level 4
Medication
No reading
Sleeping
Time
Type
Dose
#Tablets
27/01/2016 18:15 Test Med1 DoseA4 1
27/01/2016 06:45 Test Med1 DoseA4 1
27/01/2016 00:30 Test Med1 DoseA4 1
Notes:

9DoF Calibration

- **Developed at:** Shimmer Research
- **Platform**: Android
- **Date**: 2015
- **Role**: Sole Developer – From Scratch

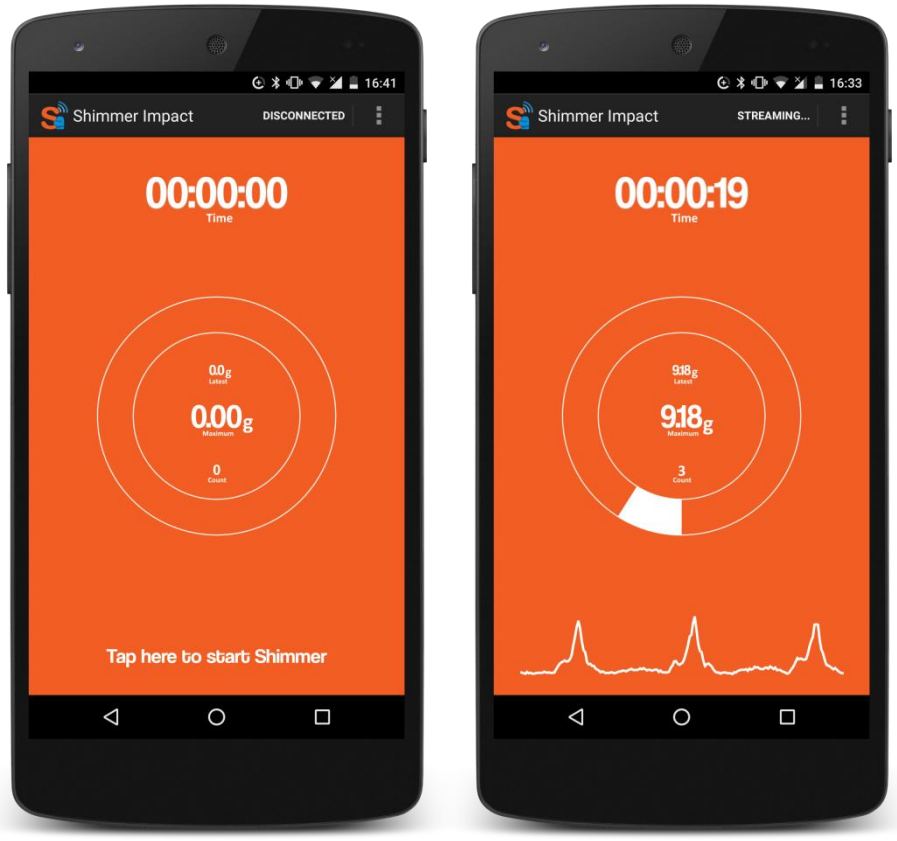
Automated procedure for calculating the calibration parameters for a tri-axial accelerometer, gyroscope and magnetometer

YouTube

Shimmer Impact

- **Developed at:** Shimmer Research
- **Platform**: Android
- **Date**: 2014
- **Role**: Sole Developer – From Scratch

App to record high impact events using the Shimmer3 200g accelerometer for tackle bag drills in sports such as rugby and American football



Shimmer ECG Demo

- **Developed at:** Shimmer Research
- **Platform**: Windows (LabVIEW)
- **Date**: 2014
- **Role**: Sole Developer – From Scratch

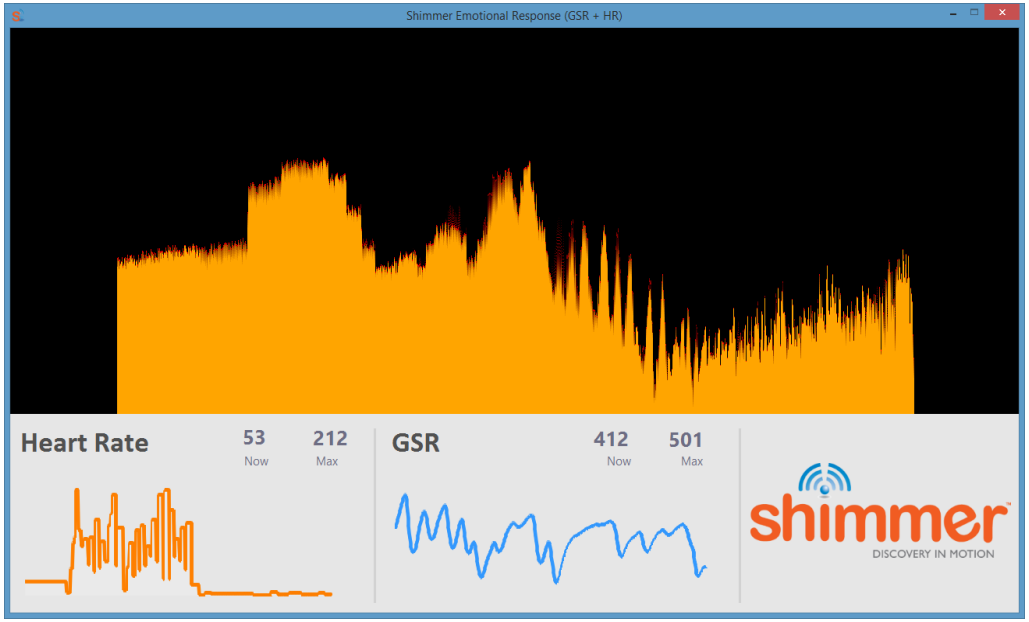
Marketing demo utilizing accelerometer, ECG, and respiration sensor with respective motion, heart rate and respiration rate algorithms

YouTube

Shimmer GSR Demo

- **Developed at:** Shimmer Research
- **Platform**: Windows (LabVIEW)
- **Date**: 2014
- **Role**: Sole Developer – From Scratch

Marketing demo utilizing GSR and PPG sensor with PPG to heart rate algorithm



Shimmer Strain Gauge Demo

- **Developed at:** Shimmer Research
- **Platform**: Windows (LabVIEW)
- **Date**: 2014
- **Role**: Sole Developer – From Scratch

Marketing demo utilizing the strain gauge sensor to see who has the strongest grip strength