

Right Call

Third Iteration



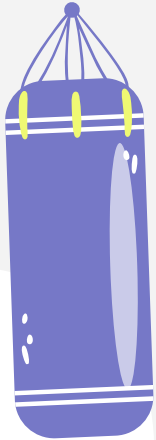
Team Members: Josh, Lyle, Jeremiah, Luke, Bradley

Client Information

RefReps

History

- Founded in 2020, after an idea CEO Kyle Armstrong had in a discussion with IUPUI officials about a referee simulation software.
- The hardware to run the original product sold out in 3 days, and again the next week.



Current Products

- Interactive & educational referee training videos for almost a dozen sports such as football, basketball, etc...
- Other Resources for referee training include magazines, infographics and statistical analysis diagrams.



01

Iteration features

What was accomplished and what is planned



Third Iteration Features

- FR22: An instructor should be able to create a class with students in it and students should be assigned to that instructor.
- FR31: An instructor can add/remove lessons and students to and from each of their classes.
- FR25: A student should see any lessons that they have been assigned.
- FR26: A student can have the option to either use or don't use eye-tracking, and a dot will follow where they are looking on the screen.
- FR5: The user should use their webcam during the lesson for eye-tracking actions
- FR28: The user should be able to calibrate the eye tracker to increase accuracy
- FR27: The admin and instructor can add different types of questions, including asking what section of the screen the foul occurs in, text input, multiple choice
- FR29: A student can answer all types of questions, and should be able to answer an eye tracking question, without a camera on.



Instructor Can Create a Class

FR22: An instructor should be able to create a class with students in it and students should be assigned to that instructor.

Create Class

See Created class with number of students instructor added

[Explore](#)[The Team](#)[Contact Us](#)[Instructor Page](#)[Logout](#)

Classroom Creation

Class Name:

Select Student to Add to Class

jeremiah
abcd
inst
adminman
g
brad123
student5
janeumann
john
s
BillyBoi
billybob
bobo
q
z

Selected Students

inst
BillyBoi
janeumann

Create Class

[Explore](#)[The Team](#)[Contact Us](#)[Instructor Page](#)[Logout](#)

Update Your Classes

Your Classes:

Intro to Basketball

3 Students

0 Video Lessons

Add/Remove
Students

Add/Remove
Lessons

Instructor Can Add Videos And Students to Class

FR31: An instructor can add/remove lessons and students to and from each of their classes.

Add/Remove Videos

Update Lessons your Students Can Take

What videos do you want to add/remove?

Remove Videos: [Basketball Video 2](#) [Basketball Video 3](#)

Available Videos to Add: [Basketball Video 1](#)

Exit

Add/Remove Students

Add/Remove Students From this Class

Click the student to either add or remove the student

Remove Student From Class: [Username: inst
Student id: 6391e5aaeeb206bbbec93e50](#) [Username: BillyBoi
Student id: 63d95b88bd5d51bcde03e8a7](#) [Username: janeumann
Student id: 63d01f4312cd869a3b439053](#)

Add Student to Class:

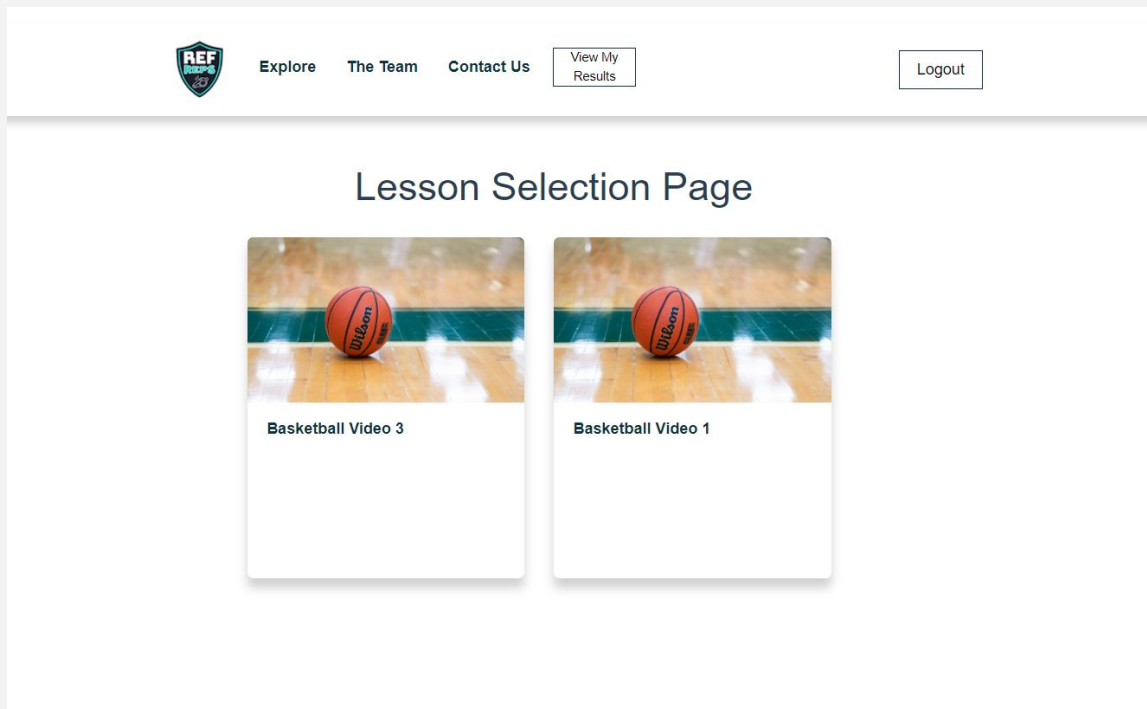
Username: jeremiah Student id: 638e5da50717e5d038cd28f6	Username: abcd Student id: 6391403ee6992768ea184c7e	Username: adminman Student id: 63938ce6da3c0fe6720de533	Username: g Student id: 63c84af14d7a8e4cb1add1bc
Username: brad123 Student id: 63c97e5539bcd85e20cd641a	Username: student5 Student id: 63d0032d256a22c0abbae4b5	Username: john Student id: 63d6cf5a0fd8ab50d26cbfb9	Username: s Student id: 63d87c1316e9c33dd4cc5592
Username: billybob Student id: 63df08e1e02b61b35bf2ff28	Username: bobq Student id: 63df2198e02b61b35bf2ff33	Username: q Student id: 63dfa61d2e3284f2aa40d683	Username: z Student id: 63dfa6342e3284f2aa40d688
Username: newnew Student id: 63e14e96d3c637fddb3e54b8			

Exit

Student Can See Lessons Assigned

- FR25: A student should see any lessons that they have been assigned.

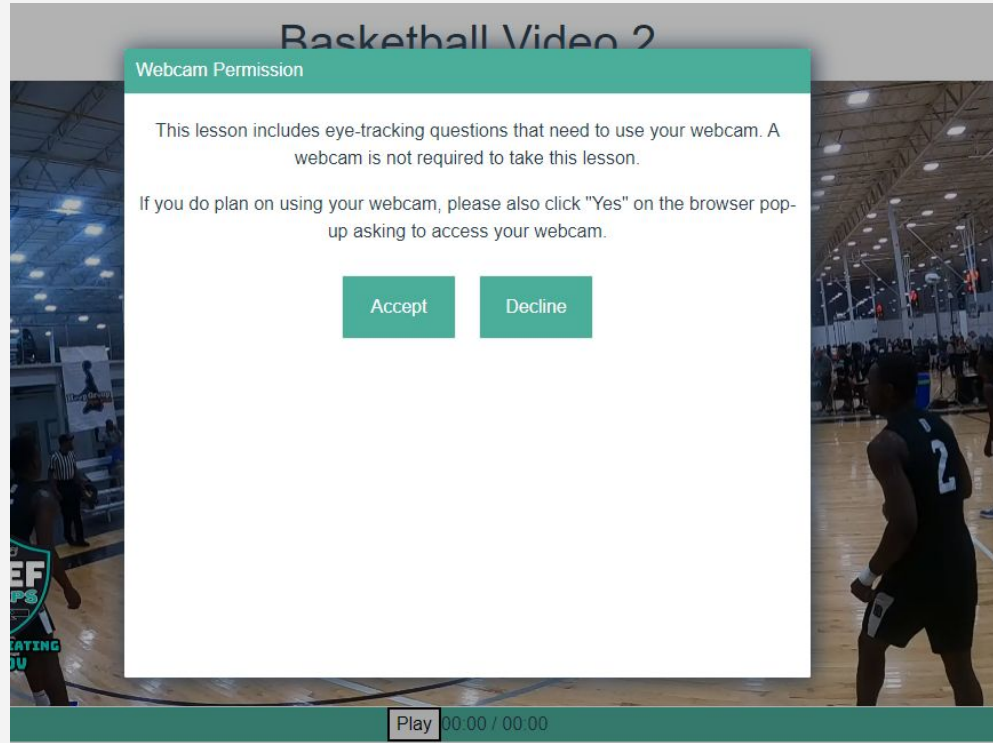
This student has only been assigned two lessons.



Student Can Enable Eye Tracking

FR26: A student can have the option to either use or don't use eye-tracking, and a dot will follow where they are looking on the screen.

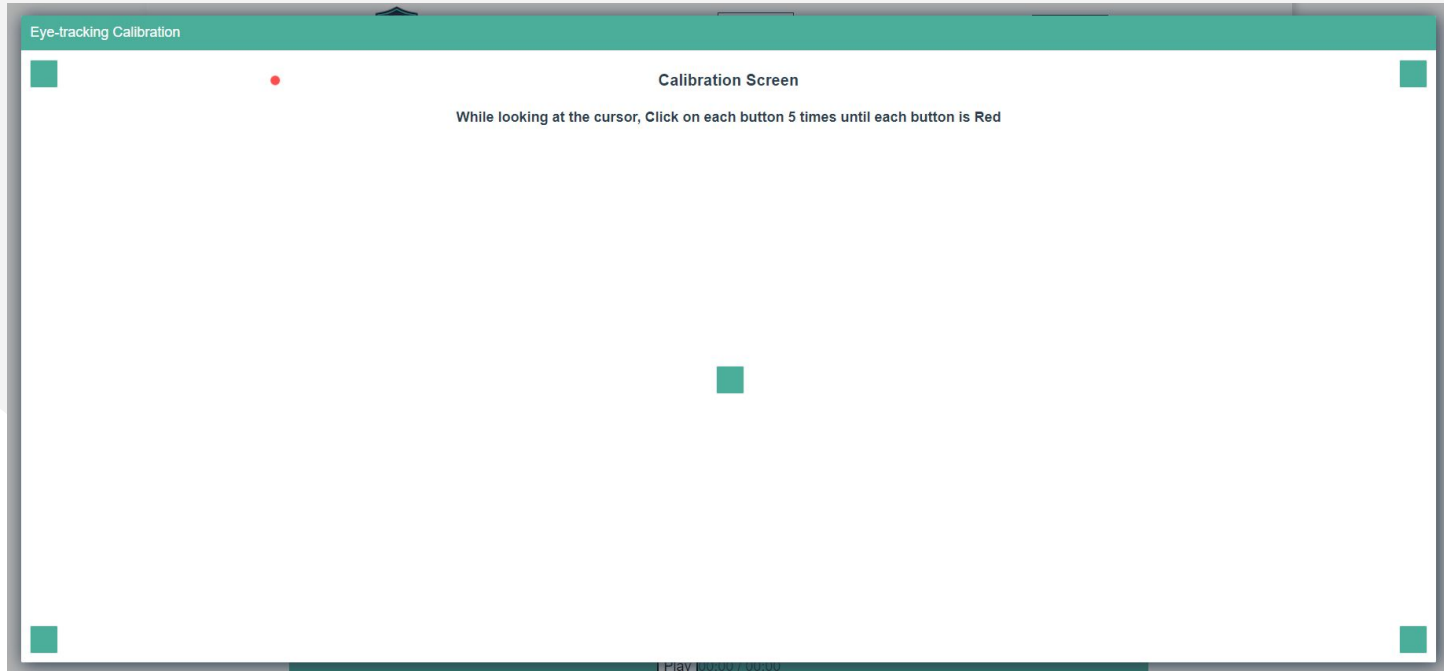
FR5: The user should use their webcam during the lesson for eye-tracking actions



The Students Webcam is on and can Calibrate the eye-tracking

FR28: The user should be able to calibrate the eye tracker to increase accuracy

FR5: The user should use their webcam during the lesson for eye-tracking actions



New Question Types

FR27: The admin and instructor can add different types of questions, including asking what section of the screen the foul occurs in, text input, multiple choice

Short Answer

The screenshot shows a dialog box titled "Assign New Activity". It contains two text input fields. The first is labeled "Question Text:" and contains the text "What is the call?". The second is labeled "Answer:" and contains the text "Traveling". At the bottom of the dialog, there are two green buttons: "Save" and "Close".

Eye Tracking

The screenshot shows a dialog box titled "Assign New Activity". It contains a text input field labeled "Question Text:" with the text "Where is the basketball". Below this is a dropdown menu labeled "Quadrant 2" with a downward arrow. To the right of the dropdown is a 2x2 grid of squares. The top-right square is highlighted in green. At the bottom of the dialog, there are two green buttons: "Save" and "Close".

Updated Multiple Choice

The screenshot shows a dialog box titled "Assign New Activity". It contains a text input field labeled "Question Text:" with the text "What is the call?". Below this are two text input fields for answers. The first is labeled "Answer 1:" and contains the text "Shooting Foul". The second is labeled "Answer 2:" and contains the text "No Call". Below these are two green buttons: "+ Add New Answer". At the bottom, there is a "Correct Answer:" label followed by a dropdown menu showing "Shooting Foul". At the very bottom of the dialog are two green buttons: "Save" and "Close".

Answering New Question Types

FR29: A student can answer all types of questions, and should be able to answer an eye tracking question, without a camera on.

Question 1

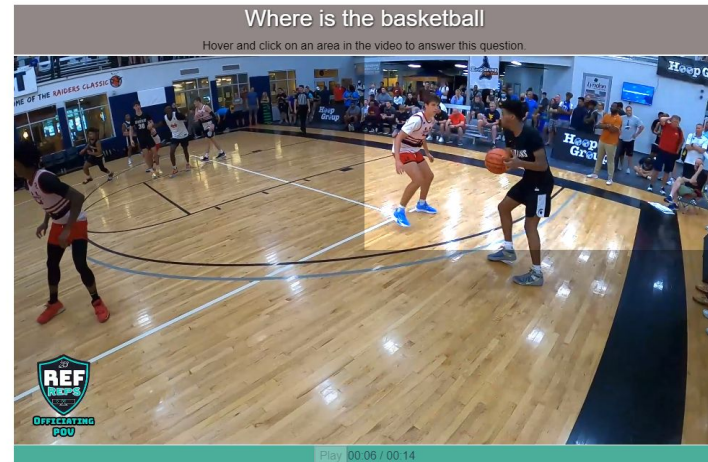
Basketball Video 1

What is the call?

Travel Double Dribble Personal Foul Shooting Foul

- Multiple-choice

- Eye Tracking
(No Webcam)



Question 2

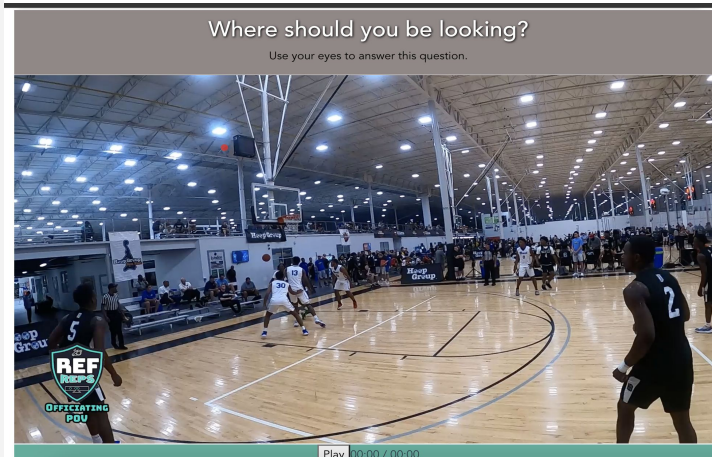
Basketball Video 1

What is the call?

Double Dribble Submit

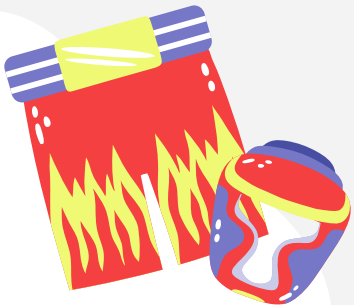
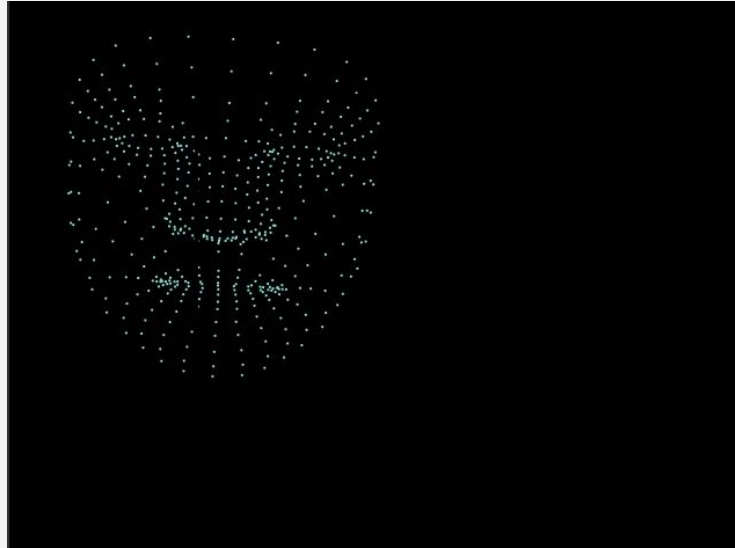
-Eye Tracking
(Webcam)

- Short Answer



The Man Inside Luke's Laptop

Luke closed his computer, while WebGazer was running, and when he opened it, Matrix Man appeared



Link to Documentation

<https://github.com/UVCity/Right-Call/tree/master/Documentation>



02

Feedback

From client and mentor



Mentor Feedback

- “Yall are blowing away expectations”
- Push ourselves to keep producing great work
- Eye tracking is coming along a lot quicker than expected
- Duncan liked our creative implementations of eye tracking questions



Client Feedback



- Thought the website looked good and ran well
- Was very happy with all of the progress towards eye tracking made this iteration
- Really liked how the quadrants were highlighted on no-webcam eye tracking questions
- The eye tracking we implemented was not exactly what he envisioned, but he still liked how we had implemented it. It opened a discussion on other ways we can implement eye tracking activities in the future iterations.



Planned Features for 4th Iteration

- FR21: An Admin can create a full lesson with many video clips and questions and publish it when ready.
- FR9: A instructor should be able make their own version of a lesson and save it in the database.
- FR30: A student should see their instructors name on each quiz
- FR10: User shall receive immediate feedback based on the result of each timestamp action
- FR32: An instructor or admin will be able to create a Drag-n-drop question, where the question will give a word bank and the image of the timestamp, and the student will move the words to the right location on screen.
- FR23: An instructor should be able to assign their custom lesson to a class.
- FR33: A student should see increased accuracy and calibration in the eye tracking.
- FR24: An instructor should be able to see the results of each of their students.
- FR34: The students time it takes to answer for each question is stored and checked for a different type of feedback.

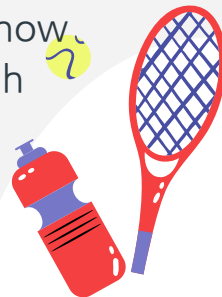


The project's overall benefit to the client

- Our project expands RefReps ability to evaluate students comprehension of rules in a multi step activity. We also test the students point of focus, which is essential for accurate refereeing

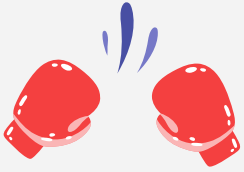
How was their process before your project and how it will be after your project right at this iteration if you release the software?

- Before our project, their process was just quizzes with only one question at the end of each video. They had no way of checking if the user is just guessing or if they are actually looking at the right spot of the video.
- So, if we were to release the software at this iteration, their process would now include the ability to ask the user multiple questions during a video, and would now be able to check that the users are learning how to referee the right way through eye-tracking at certain spots in the video.





MANY THANKS!



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