Alianna
Panganiban
amp9@njit.edu

Isaiah Rodriguez
ier2@njit.edu

Madeline Miller
mam357@njit.edu

Gaurav
Sindhu
gs426@njit.edu

Group name: Grupo uno
App: Hoops

IS247-003 - 12/17/21

Jayson
Acosta
jja53@njit.edu
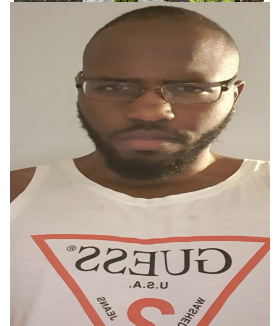
Matthew J Barnes
mjb88@njit.edu

High Level Vision

Hoops will transform the way people play recreational basketball. By collaborating with interested players, they are able to capture their gameplay, share it, and receive critical feedback. In order to get creative with playmaking and advance on skill learning, key moments are highlighted and displayed with suggestions on how to improve

Stakeholders

Stakeholders	Impact
Students who play basketball	Download and use app through personal mobile device
NJIT Students	May be visible in recording of plays
NJIT Staff for facilities	Ask for consent for recording. Have to maintain courts during recreational hour that it is being used.
NJIT Security	Establish safety patrol over other students and faculty at the basketball court.
NJIT Administration	Possible investor. Can provide support. Liable for anything that happens on property.
Spectators	Can offer to record footage for players
Local Sports Store Owners	Want to advertise more basketball products to amateur level players who need equipment.

Initial Target Demographic Breakdown

- NJIT Students who play basketball recreationally
  - Male
  - Female
  - Undergrad
  - Grad
  - Residents
  - Commuters
  - Members of social clubs that have amateur level teams within club

- Age range: 16-18, 18-21, 21-30, 30+

Personas

Lucas Munoz
- Age: 20
- Dedicated Computer Science student
- Very motivated to be the best he can be at anything he tries

Blake Adams
- Age: 21
- A student who is smart and tech savvy
- Has a mind for critical thinking and entrepreneurship
- Is not very confident.
- A part of eboard of student senate

Jennie Kim
- Age: 20
- Dedicated in finishing school and obtaining degree
- Commutes to campus
- Wants to improve skill to participate in 3v3 tournament

Justin Harris
- Age: 19
- Played basketball in high school; still plays recreationally with friends in free time.
- Competitive in nature; enjoys playing several sports and working out.
- Enjoys new challenges both academically and physically.

Emily Wilson
- Age: 20
- Law Student
- Is open minded to trying new things
- Wants to meet new people outside her major
- Competitive in anything she does
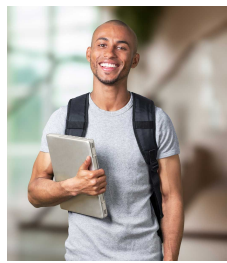
Michael Simmons
- Age: 19
- First experience living on campus however does not have any friends.
- Naturally athletic
- Proficient in programming and computers
- President of student council
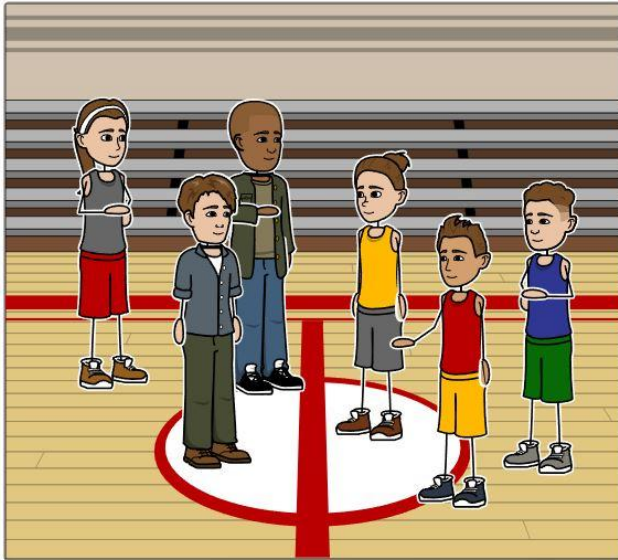
Problem Scenario

Wednesday October 20 5:30pm.

At the NJIT Wellness and Events Center

Wednesday, 5:45pm

3v3 gameplay starts. Blake passes the ball to Justin

Justin is defended by Michael

Problem Scenario

Justin does a crossover that leaves Michael on the floor

Everyone's reaction is crazy as Justin is squared up on the three point line ready for a shot

Justin takes the shot without following through and airballs

Claims Analysis

Problem Scenario: Justin does a crossover that leaves Michael on the floor

| Title: Losing your defender allows for open jump shots or layups |
| --- |
| Description: Justin and Michael are playing 3 on 3 at the WEC when Justin crosses Michael with a side to side dribble move leaving Michael on the floor. |
| Pros:
　● Advantage for offensive team giving open shot selection
　● Visually able to see brief footage of positive feedback of cross over
Cons:
　● Understand basic defensive fundamentals |

Technology Audit

Smartphone

- iPhone and android users can record themselves shooting a basketball without interruptions. With the aid of AI technology, video photoage will be trimmed automatically for the user to view key highlights.
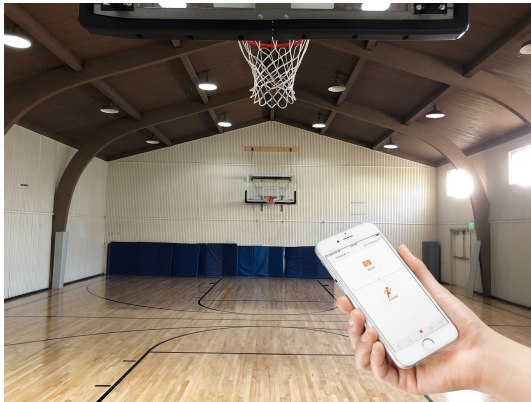
Smart Watch/Apple Watch

- Utilizing the app on a smartwatch sends feedback to the users phone
  - Information regarding the users shot release

Technology Audit

Wearable sensors

- Connects the team members through bluetooth connectivity along with a sensor built in within the basketball itself that is tracked.

Drones

- Eliminates the issue of poor angles
  - Aerial view of user to better capture angles of footwork and shot release

Motivating Problem/Point of Intervention

Jumpshot Form:

Justin performs an exceptional play by breaking Michaels ankles with a crossover allowing him a wide open jump shot. However, Justin misses the mid-range jumper. In this situation, Hoops will analyze the possession flagging the ankle-breaker and the missed jumpshot. Positive feedback will be provided for the ankle breaker however, hoops will flag the missed jump shot for the user to see any corrections needed in form, location of jumpshot, and store the brief video footage in the "shooting" category of the app. In addition, smartwatches, drones and wearable sensors are all pieces of technology that can enhance feedback from Hoops to users. In the case Justin was looking improve his jump shot even further, he is able to connect his Apple Watch through Hoops. This will give additional feedback on follow-through form and height of shot released.

Activity Scenario

5:30pm Wednesday October 20. At the NJIT Wellness and Events Center

Michael decides to record the gameplay through Hoops. To ensure that everyone is detected by the application he is advised to take a visual scan pregame.

Michael props up his phone against the wall allowing the angle to capture the whole court they are playing on. 3v3 gameplay starts.
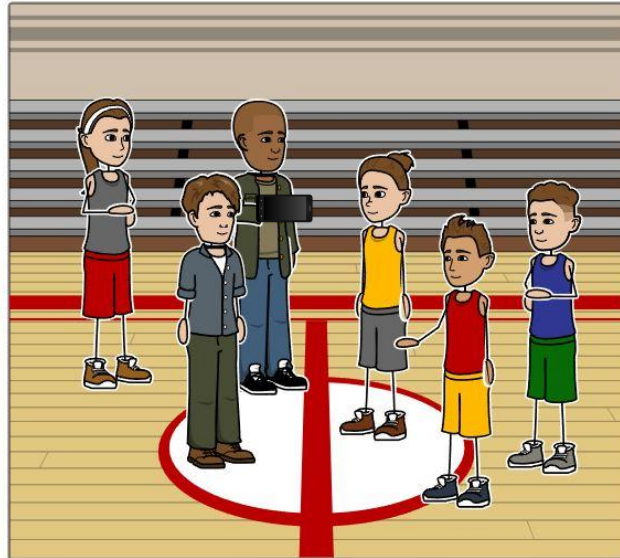
Justin does a crossover that leaves Michael on the floor

Everyone goes crazy and Justin is squared up on the three point line

Justin airballed the three pointer

8:30pm Everyone is gathered outside of the gym as Michael shows Justin the feedback screen on Hoops where it shows their errors
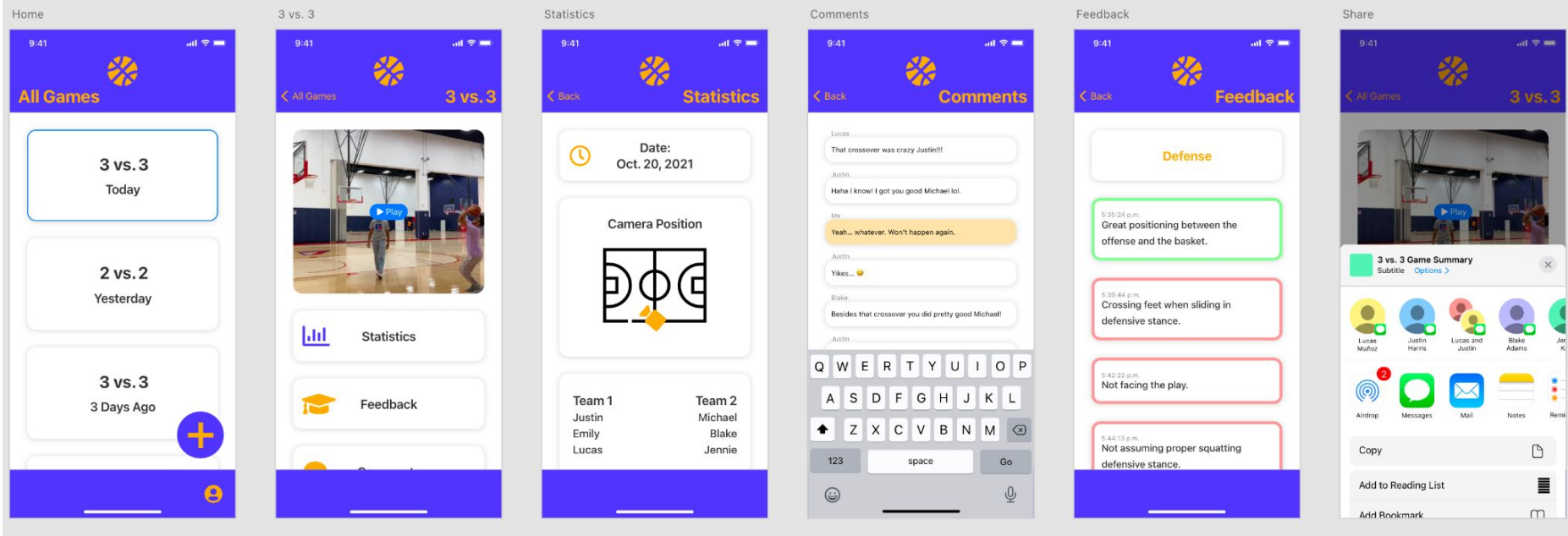
Key Path Scenario

1) Customizable video description (title, time, description, team names)
2) Categorized by date and activity
3) Provided with numbered statistics based on the information collected by Artificial Intelligence and text suggestions
   a) Corrections for shooting form in order to score
   b) Corrections in defending in order to prevent other team from scoring
4) Comments are visible on any videos in the app and can view the comments of others
5) Shareable selected clips with other users and request for their feedback via IOS sharing and actions

Wireframe
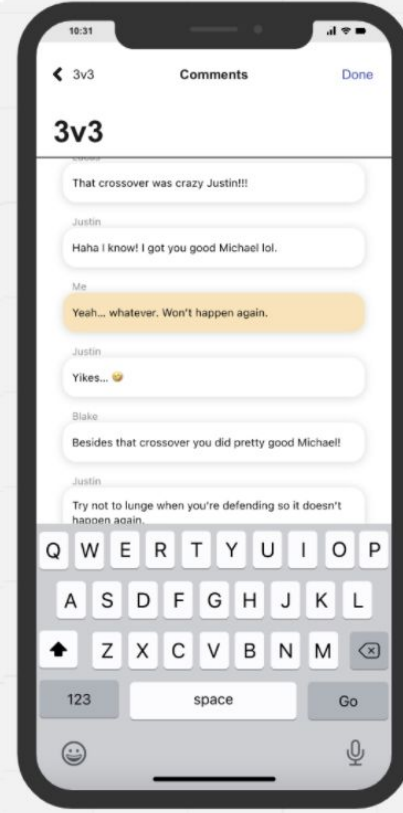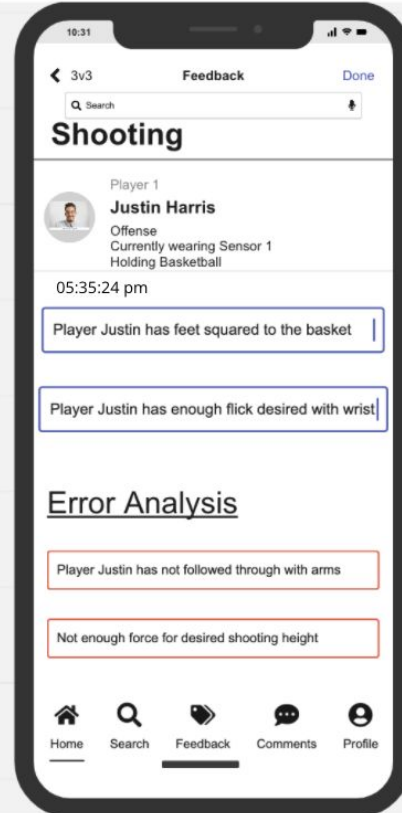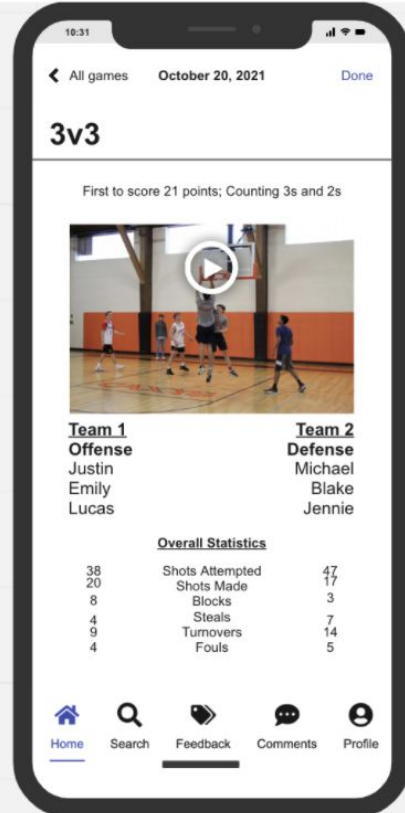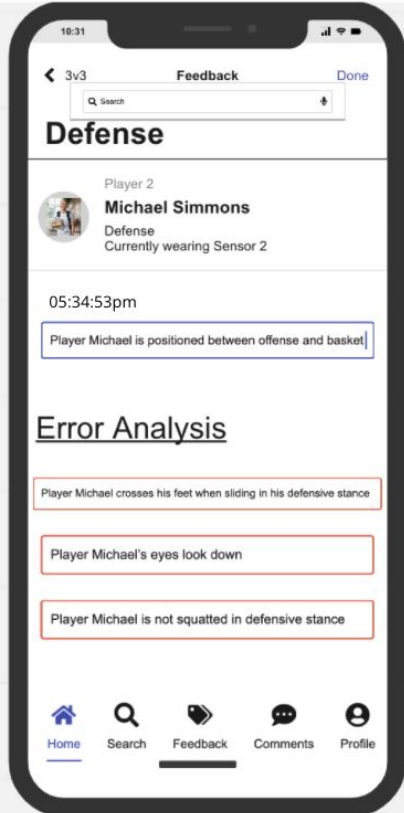
Wireframe

Interactive Prototype Link