

Softball Team 2



EE/CprE/SE 491 Status Report 5.5

Apr 4, 2025 12:00 AM-Apr 10, 2025

Group number: 49

Project title: Slowpitch softball device

Client/Advisor: Nicholas Fila

Team Members/Role:

Cael Schreier: Bookkeeper and Code Review

Andrew Kinneer: Lead System Designer

Kyle Nachiengane: Lead Testing Engineer

Sam Skaar: Coordination and Documentation Lead

Kolby Moorman: Lead Frontend Developer

- **Weekly Summary**

- **Past week's accomplishments**

- Andrew Kinneer: Added advanced color calibration mode, which allows the user to edit what color values are being looked for to define the softball. It will be very helpful for debugging quickly in the future. Also found a bug in my pitch detection code that was causing softball tracking to fail, so now softball detection is on par with what we had in Python by the end of last semester. Started refining pitch detection, which is still in progress
- Kyle Nachiengane: Added a quick menu in tracking activity that stores the min and max height, pitch direction, and recalibration. Also looked into pitch detection to find issues.
- Cael Schreier: I added many features to our calibration that we discussed in our previous meeting, including streamlining the “one person” mode, adding more recalibrate options, improving our height input method, calibrating what side of the field you are on, testing interactions between components, and fixing many code bugs.
- Kolby Moorman: This week I really tried to become comfortable with the code that Drew has written already for softball detection and pitch detection. I’ve started to do some research on pitch detection techniques that will not slow the program down. Also looked into converting the stuff over to objective c for a short amount of time to get an idea of what that would look like now that the application is near the testing stage and I think the opencv part would be relatively straightforward however all of the android specific implementations would have to be reworked using different ios methods which I think could take a lot of time.
- Sam Skaar: This week I worked on getting data back from the android activity to the flutter frontend. I failed. Will take any advice. I also talked with the other team to get an idea of where they’re at. I like how they implemented the instructions, but I still think we are ahead.

- **Pending issues**

- Universal ball tracking algorithm
- Height tracking improvements for edge cases
- OpenCV full mobile implementation
- Sending game data from Android to Flutter

- **Individual contributions**

<u>NAME</u>	<u>Individual Contributions</u>	<u>Hours this week</u>	<u>HOURS cumulative</u>
Andrew Kinneer	- Advanced color calibration mode - Fixed softball tracking bug - Started refining pitch detection	10	122
Kyle Nachiengane	Added a quick menu in tracking activity and looked into pitch detection to find issues.	5	106
Cael Schreier	Calibration improvements for recalibration, height input, left vs right pitch calibration, code fixes and testing	8	114
Kolby Moorman	Experimenting with pitch detection	5	108
Sam Skaar	Data gathering from android	8	110

○ **Plans for the upcoming week**

- Andrew Kinneer: Sole focus on improving pitch detection logic
- Kyle Nachiengane: Work on the color calibration method.
- Cael Schreier: Help the team with full application testing, help improve pitch detection logic if still needed, and improve our feedback when detecting illegal pitches to show where the illegal pitch was detected.
- Kolby Moorman: Need to meet with Drew to figure out exactly what he needs my help with and what his experiments are going to look like so that we don't do the same ones and can knock out two things at once.
- Sam Skaar: Get data back to the frontend.

○ **Summary of weekly advisor meeting**