Project Goals: Throughout our Bed Sensor Alarm project we had a couple goals. One of them being that the sensors would be able to share the weight information with the central alarm and be able to sense when more than 50 lb of weight has been removed from the bed. Second being the system would have 3 identifiable stats. Regular standby mode which is the normal clock operation, alarm mode, and timer mode for when the snooze button has been pressed and the timer starts. And then the last one being: after the snooze button has been pressed, the system will return to alarm mode if the 50 lb of weight has been added back onto the bed before the timer goes off. These goals all almost met, so far we implemented the 3 identifiable states and the sensors sharing the weight information with the central alarm. The only thing we have to do is set the buttons, so that the users can set the alarm using the buttons and then use the snooze button being able to return the system back to alarm mode.

Expectations: We created many expectations for our group. One being commitment and participation. Our members were able to commit to the project's success and take responsibility for their assigned task and deadlines. We also engaged in discussions involving the projects for brainstorming ideas and decision making. In terms of timely communication, members within our group were able to respond promptly to emails, messages, and requests for inputs. Throughout the semester our team members were able to provide feedback on work, proposals, and ideas with criticism as well while emphasizing the importance of improvement. Moreover, we also addressed conflicts with projects or schedules and worked together to find a solution, like each dividing up the work to finish it and then holding zoom meetings to discuss at different times, if a certain time doesn't work out. This leads to our last two expectations of task ownership and respect. The members are able to take ownership of their tasks and that we each respect each other's perspectives and contributions with the goal of a successful project. Overall all the ground rules our team set out at the start of the semester were followed through for the whole project.

Roles: The team overall performed better when everyone worked together. We set times to meet. It could be more than once a week, depending on our schedules. If one person can't make it, the other two members can choose to work together if available. When this happened, Syed and Ebaad worked with

designing and building, while programming was contributed by Colby. Syed was team leader as he kept everyone in check. Otherwise we would find another time. This project involves design and putting together the bed sensor alarm, while using programming to help the central alarm command the device. The bulk of this project required EE majors with both design and testing skills, which we all excelled at. We spread tasks among individuals but we mostly worked together weekly to ensure a functioning project and to avoid having issues to fix. It's better to have three sets of eyes than one.

Agenda: Agenda was set together as a team. We will work around each other's schedules to deliver a successful project. In order to ensure that the team stays on track during the semester we hold meetings to discuss progress, challenges and next steps. These meetings would have a fixed schedule and agenda. We usually created a detailed project timeline with specific milestones and deadlines. When a decision needs to be made, it will be a consensus. We would make sure everyone is on board with a certain idea or concept involving the project. Colby King will be keeping the records. Our goals were set on a schedule that we made. When there was a time where we couldn't get everything done for that certain week we would move it to the next week, with the next week's work being heavier. When an issue came up we scheduled a call to research a way to fix it, or have an alternative way to do it as backup. For example, in case our PCB design didn't work as we expected it to, but it did.

Team Issues: Throughout the project we faced countless issues with programming such as the weight sensors not sending the data to the alarm at all, otherwise an LED would be blinking to indicate that to us. We also had issues where we had the chip on backwards which flipped around the functionality. Clearing that issue took a while, as two of us had to meet up to fix it. We also had PCB design deadline issues, mostly because of the lack of communication and effort. Syed had to emphasize to the person in charge of the design to increase their pace as this design is crucial for our project to work. The team worked with the member for the design to submit it before Tuesday midnight. Overall, the process set out in the team contract was followed by the team members. Things we could have done differently was maybe working more on the design earlier, so that in case the design doesn't work out we could submit another design for the next round, but it turns out we made it work once everything was soldered.