

Executive Project Summary

At the beginning of the project, the design problem is a top-level block diagram. The group solved this in week 2. Each group member is in charge of 2 individual blocks. They discuss all technical issues by posting them on slack. The design basically follows the original top-level block diagram, except the team canceled the signal amplifier circuit. The group tried to integrate the amplifier speaker into the system. Although the amplified function works well, it still generates some noise. The audio quality is worth considerable and improvable for this project. Mechanical and enclosure part is a challenge because the team lacks tools and mechanical knowledge. In the last week, the group uses wood as an enclosure to cover all parts of this project. The benefit of wood is that it is tough enough to afford 30lbs force when the door is locked. The friction is another reason that the group needs to consider due to it has a huge effect on the sliding up and down of the electric door.

The development of this project is stable and continuous. Each week, the team had progressed on the project. They use 2 weeks for completing each block and making sure their individual blocks work by peer review. Once they found an issue from their block, they fixed that quickly. Because of this, the final integration is smooth and successful. The team used 3 days to cover each block into the enclosure.

By working as a team, all team members learned group work, time management, and communication skills. It is hard for an individual to finish a high-quality project, the group requires members diverse in skills to cooperate. All of those techniques learn in this project are significant for professional development.

Project timeline:

WEEK	11	12	14	17	19	20
DESIGN	Engineering Requirement					
		Block diagram submission				
		Project Timeline Due				
		Weekly Progress Report				
		First Block Check-off				
		Weekly Progress Report				
BUILD/TEST						
				Second Block Check-off		
				Teamwork Reflection		
				Weekly Progress Report		
PRESENT						
				Project Showcase Presentation		
				Project Showcase Technical/Developer Guide		
				System Verification		
				Design Project Meme		
					End of Project Cycle Self Assessment	