EECS 448: Design Paradigm
Team 7
3/28/2021

For Project 3, Team 7 has chosen to utilize the Object-Oriented paradigm as the core of our design paradigm, with the Top-Down Functional and the Component-Level paradigms also being utilized. The reason behind the utilization of the Object-Oriented design paradigm is that this paradigm is what came naturally to the team when early designs were being drawn up for Project 3. When the team began to brainstorm what the nature of Project 3 should be, various ideas were floated and discussed, often with loosely defined scopes. As the team's discussions progressed these broad-natured ideas were whittled down, and eventually it was decided that the nature of Project 3 would be a side-scrolling game of similar style to Super Metroid™ by Nintendo. From there, the game's engine was determined and features were discussed and established. These features are the component objects that are the staple of the Object-Oriented design paradigm. The reason behind the utilization of both the Top-Down Functional and Component-Level paradigms is to give the team's design process a path of logical progression; a path where the team will come up with a broad, overarching idea for the nature of Project 3 and then proceed to narrow the scope of that project and identify what the components of Project 3 will need to be in order to support the now tailored idea for Project 3. The Top-Down Functional and Component-Level design paradigms help facilitate this logical design progression, and help the team define what components will be needed to make the project work.