Design documents

1.1 Requirements & Constraints

List all requirements for your project. Separate your requirements by type, which may include functional requirements (specification), resource requirements, physical requirements, aesthetic requirements, user experiential requirements, economic/market requirements, environmental requirements, UI requirements, and any others relevant to your project. When a requirement is also a quantitative constraint, either separate it into a list of constraints, or annotate at the end of the requirement as **"(constraint)**." Ensure your requirements are realistic, specific, reflective or in support of user needs, and comprehensive.

Types of constraints:

Physical:

- We were given a size constraint of a 2ft by 2ft by 2ft area
- Able to be portable and light enough to be carried

User:

- The user should be able to control audio volume
- control scheme for the games
- have responsive controls (10ms input delay)

Software:

- Clean UI
- Able to run ROMs / .exe files
- Lag free gameplay
- Able to read inputs from a controller

Material:

- All devices contained must stay below 85 Celsius
- Monitor should be behind glass/acrylic pane
- Cabinet made out of a hardwood

1.2 Engineering Standards

What Engineering standards are likely to apply to your project? Some standards might be built into your requirements (Use 802.11 ac wifi standard) and many others might fall out of design. For each standard listed, also provide a brief justification.

For wire routing and standard powers, we will mimic the JAMMA standard:

- This is a set of basic standards for easy repairs for arcade cabinets. This allowed for old arcade cabinets to be repaired and reused by using standard parts and standard voltages for components

OSHA standards:
- Safety and preventive planning

ASAP (https://appliance-standards.org/national)
- While we cant meet all needs, we will try and match the power saving aspects (while not in use, save power)