Operational Modes:

* Video Mode
  + Cube runs through pre-scripted pattern sequences
* Interactive Mode
  + Cube takes inputs from peripherals to generate patterns
* Debug Mode
  + Allows user to toggle LEDs on and off manually for HW testing

Abstraction Layers:

Highest Level: Applicatation

Mid level: PHY

* Controls the HW stuff
* LED mapping

Lowest Level: CSL

Board config/initialization stuff

Application Layer

* Sequencer Layer slices 3d images into layers and sequences them
  + Layer Layer TLC set, clear, SPI convert, …
    - Chip Support Layer Board config stuff

Main.c:

* menu\_system.c
  + mpr121.c
  + lcd\_20x4\_i2c.c
* animations.c
  + tlc5940.c
  + bool\_mask.c
  + frame.c
  + lyr\_frame.c

Main.c

menu\_system.c

Purpose:

synchronizes capacitive touch mpr121 inputs with the lcd to create a “menu system”

includes:

mpr121.c

lcd20x4\_i2c.c

functions:

Purpose

char Menu\_Read\_Keypad();

char Menu\_Read\_Wheel();

Menu\_TypeDef Menu\_Scroll\_Up(Menu\_TypeDef tempMenu);