Classes

```
class RPS40ST:
    # class for the pressure sensor

    def __init__ (self, pin)

    def raw_input(self)
        # outputs raw analog data from pressure sensor

    def force_input(self)
        # outputs force (N) on the pressure sensor

class ILI9341
    # class for display & touch sensor
    def __init__ (self, bus, address, default brightness)

    def _setup(self)
        # setup display

    def. print( self, message, alignment)
        # displays the message on the touchscreen.

    def println(self, message, alignment)
        # moves to next line and prints message
    def. clear(self)
        # clears everything displayed

    def show_dot ( self, x, y, size)
        # shows a circle at the x, y location

    def touch_loc(self)
        # gets location that the touch screen is tapped

    def wait_for_touch(self):
        # waits for touch and returns touch location
```

class buzzer

```
def __init__(self, pin, default volume)

def buzz_once(self, volume=default volume)
    #buzzes for 0.2s
def buzz_time(self, time, volume=default volume)
    # buzz for specified time
```

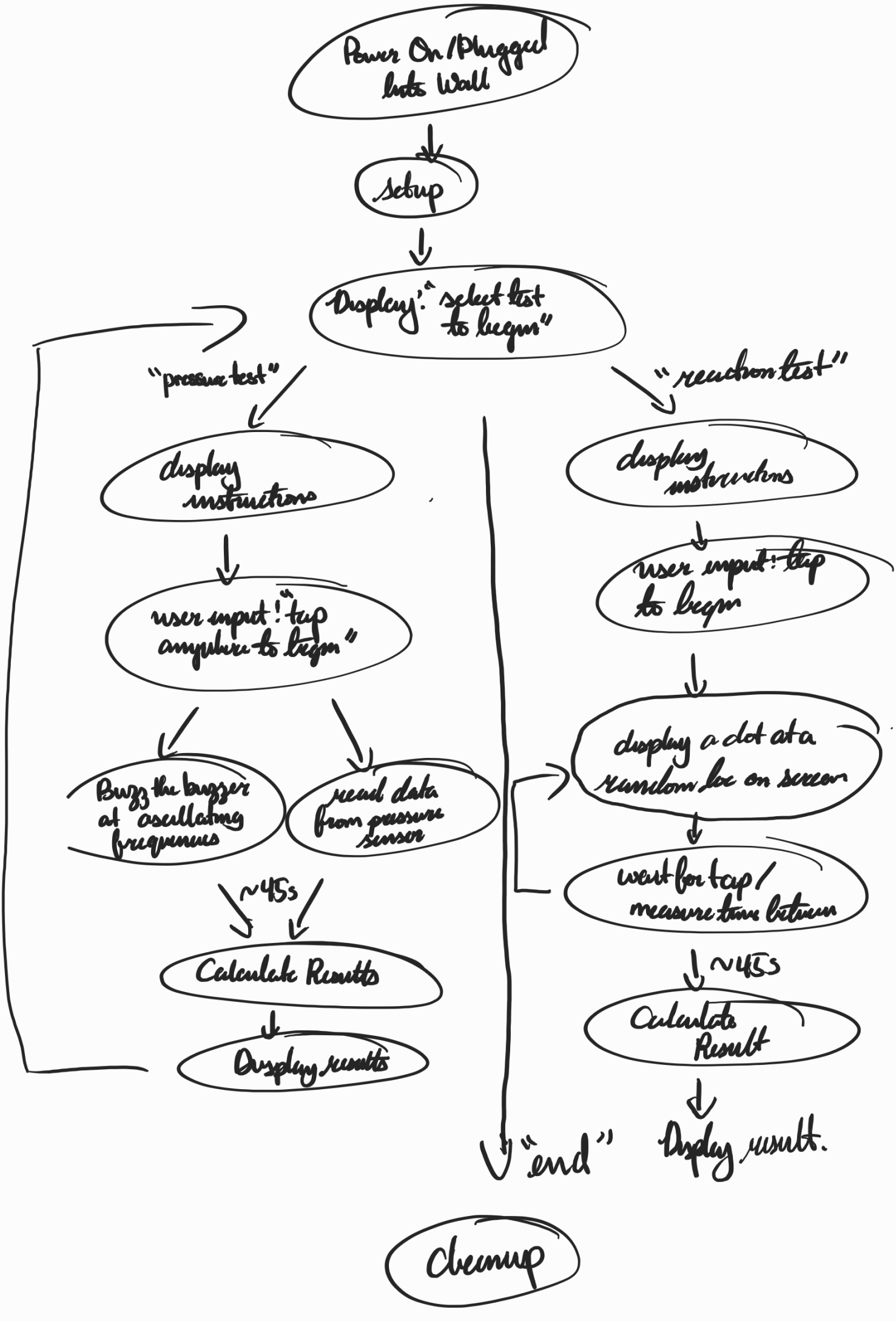
2 Tests

Pressure Test

① Buzzer beats at oscillating frequency
② User instructed to tap whenever it beats and w/ constant pressure
③ Timing and pressure recorded.

Reaction Test.

① a dot is displayed on touch screen
② time until dot pressed recorded
③ dot moves to different location


Power On/Plugged Into Wall
Setup
Display: "select test to begin"
"pressure test"
"reaction test"
display instructions
user input: "tap anywhere to begin"
Buzz the buzzer at oscillating frequencies
read data from pressure sensor
~45s
Calculate Results
Display results
display instructions
user input: tap to begin
display a dot at a random loc on screen
wait for tap / measure time between
~45s
Calculate Result
Display result.
"end"
Cleanup