**Hardware Setup:**

1. Setup the executable code on a raspberry Pi

2. Obtain the drone – body, ESCs, Motors, Propellers, Battery, Flight control board

3. Setup a wireless or wired connection from the raspberry Pi to the flight control board

4. Setup a power source for the raspberry Pi on the drone and dock them together

5. Have a separate PC and establish a wireless connection to the raspberry Pi for live display.

**Software Setup:**

1. Install the python dependencies: opencv, tkinter, imutils, numpy and any drone specific dependencies.

2. Setup the camera video feed and send it or the extracted frames to the running python code.

3. Calculate the focal-length of the camera using the helper python code/function distance-to-camera.py

4. Run the code and set the parameters to calibrate the entire system to adjust to the local environment. These parameters may include

a. Focal-length,

b. HSV colour thresholds,

c. Dilation-erode cycle ratios.

d. Distance threshold to classify close-medium-far distances

5. Setup drone-kit API to perform drone movement. Also use an RC remote to override drone control in case of discrepancies or emergencies.

6. Setup a cutting mechanical mechanism to extract the fruit and place the trigger function within the move\_drone() function.