

# Hydro-Mini

Efarm KJSCE

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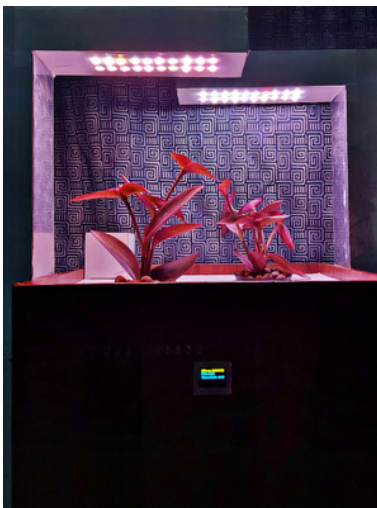
## What Color Light is Best for Plant Growth?

- Violet-blue light in the 400 – 520 nanometer range encourages chlorophyll absorption, photosynthesis, and growth.
- Red light in the 610 – 720 spectrum range promotes flowering and budding.



## Small-scale Hydroponics?

Hydroponic gardening is space-efficient and takes less water than gardening in soil. Growing in water also means no weeds. With artificial lighting, you can grow hydroponically all year long, even in Minnesota.



## Hydromini

Hydromini is a clever solution that encapsulates the hydroponic system along with many added benefits. The design of Hydromini has a motor to pump air into the water and it has an OLED display to display all the various values which we have got from the sensors.

Various factors such as the pH, water level, and color of the artificial light are tailored to the plant's requirements in this system using sensors.



# THINGS CONSIDERED!



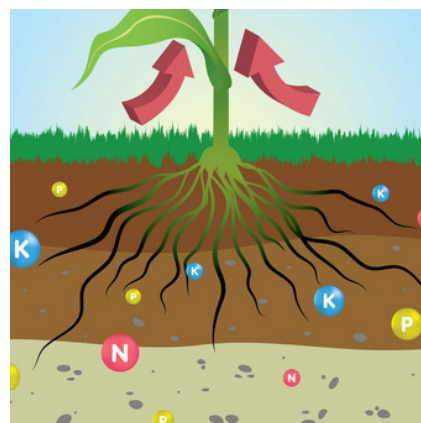
## #1 – Plant selection

Plant selection is key to successful hydroponic gardening. In order to choose a plant that will be successful in your system, consider how much light and heat you will have access to.



## #2 – Oxygen bubbles in water

You need to check if any store provides a complete range of items and supplies. Can you easily get anything you need for hydroponics gardening just in one place? No wonder, people mostly prefer one-stop shopping for hydroponics.



## #3 – Nutrients through water

The simplest solution to making sure you have the correct balance of nutrients for your specific crop is to purchase a hydroponic fertilizer solution tailored to your crop. For example, you can purchase fertilizer specifically designed for hydroponic lettuce.

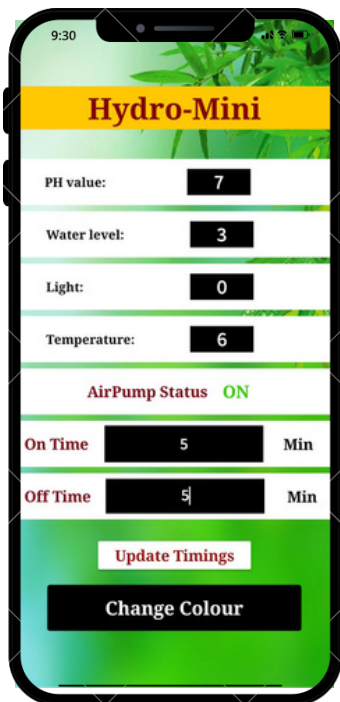


# E-FARM

MIT APP INVENTORY BASED MOBILE APPLICATION



The Firebase Realtime Database is a cloud-hosted NoSQL database that lets you store and sync data between your users in realtime.



## AIR PUMP

### ON/OFF STATUS

Monitor air pump status by th app



## COLOUR PALETTE

### SELECT COLOUR

Select desire colour for your Hydromini through the app



Designed by Efarm KJSCE