



## **Group 1 - Finter**

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- Muhamad Ilman Nafian
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- Wahyu Ananda Duli Tokan

## Features

- Access Point
- Sensors
- LED Indicators
- Auto Fish Feeder
- Touch TFT LCD
- Auto Light Switch
- Water Pump Switch

#### Access Point

- Wi-Fi Router
- DHCP Server

#### Sensors

- Ambient Temperature
- Water Temperature
- Light Levels

#### **LED Indicators**

- Temperature Warning
- Feeding Status
- Light and Pump Status
- AP Status
- Power

#### Auto Fish Feeder

Feed on Interval

#### **Touch TFT LCD**

- Current Date and Time
- Time Until Next Feed and Controls
- Water Temperature
- Ambient Temperature
- Lights and Pump Status and Controls
- AP Status

#### Auto Light Switch

- Auto Ambient Switching
- Manual GUI Switching

### Water Pump Switch

• Manual GUI Switching

## Development Plan



## Week 1

### November 4

- Part Collection
- Environment Setup
- LCD Setup
- Development Planning



## Week 3

## November 18

- Kernel Optimization
- Fitting into Aquarium
- Sensor Integration
- LCD GUI



## Week 5

#### December 2

- Testing
- Final Touches
- Compose Report

### November 11

- Self-Compiled Kernel
- Access Point and DHCP
- Initial Assembly
- Initial Application



## November 25

- Kernel Optimization
- Final Assembly
- LCD Controls

Week 4

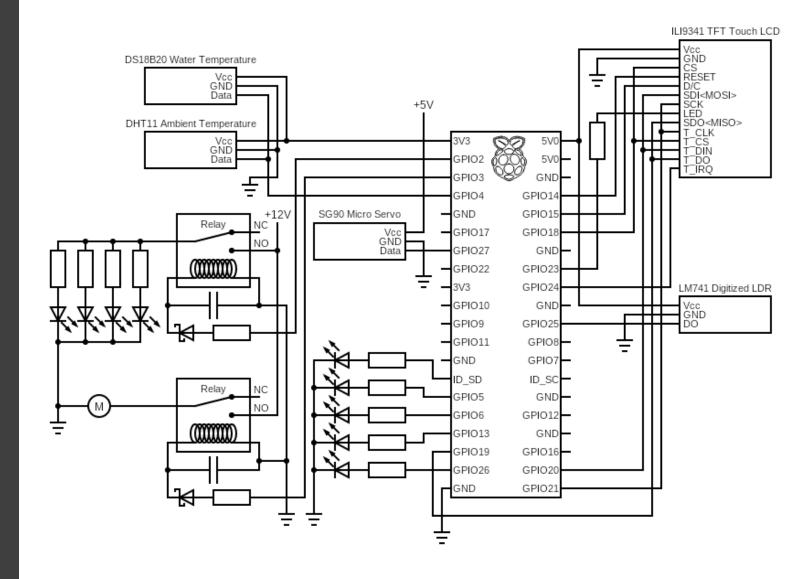
### December 9

- Compose Report
- Create Documentation
- Final Touches

Week 6

## **GPIO**

- Raspberry Pi 3 B+
- ILI9341 TFT Touch LCD
- SG90 Micro Servo
- DS18B20 Water Therm.
- DHT11 Ambient Therm.
- LM741 Digitized LDR
- 2 Relay Modules
- 5 Status LEDs



# Week 1 Task Assignment

## Danny

- Compile Kernel
- Assemble Build

## Ilman

- Setup LCD
- Assemble Build

## Naufal

- Setup Access Point and DHCP Server
- Gather Parts

## Wahyu

- LED Circuit Assembly
- Gather Parts

# Thank You