



Smart Aquarium System

Group 6

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- 
- **Main Components**
 - **Main Features**
 - **Operating Details**
 - **Markets**
 - **Estimated Cost**
 - **Upgrades**

Main Components

Sensors

- Capacitive Sensor
- Temperature Sensor
- Photoresistor

Actuators

- Water Heater
- Water Pump
- Servomotors
- Power Switch
- Temperature Dial

Main Features

Water Level

- **Monitors and Sets Desired Water Level**
- **Maintains Desired Water Level**

Water Temperature

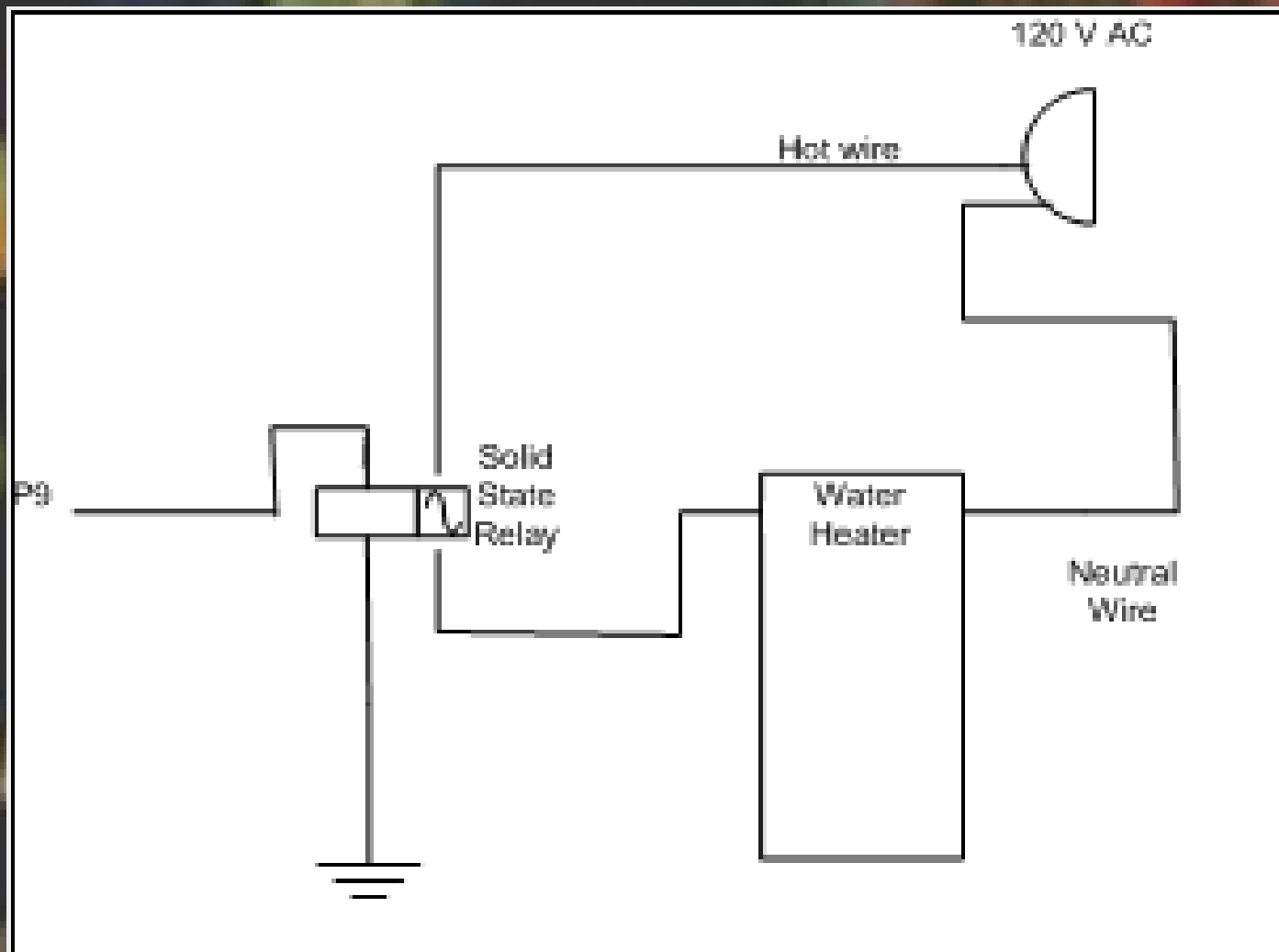
- **Controls Water Temperature**
- **Maintains Desired Water Temperature**

Automated Food Dispenser

- **Regulates Food Quantity Dispensed and Scheduling**

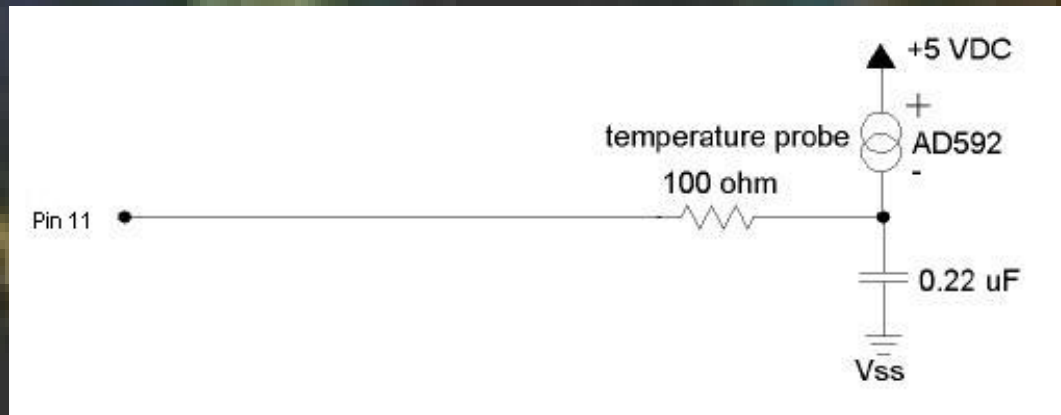
Operating Detail

Water Heater

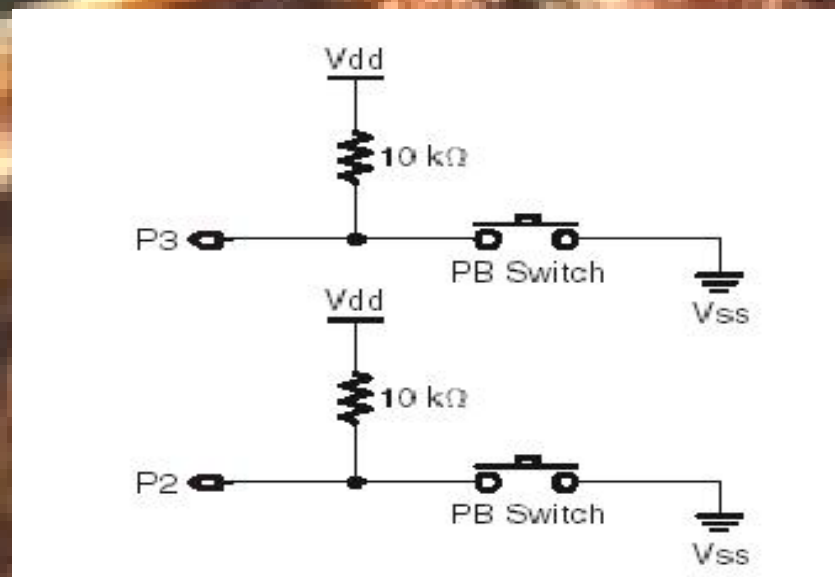


Operating Detail

Temperature Probe

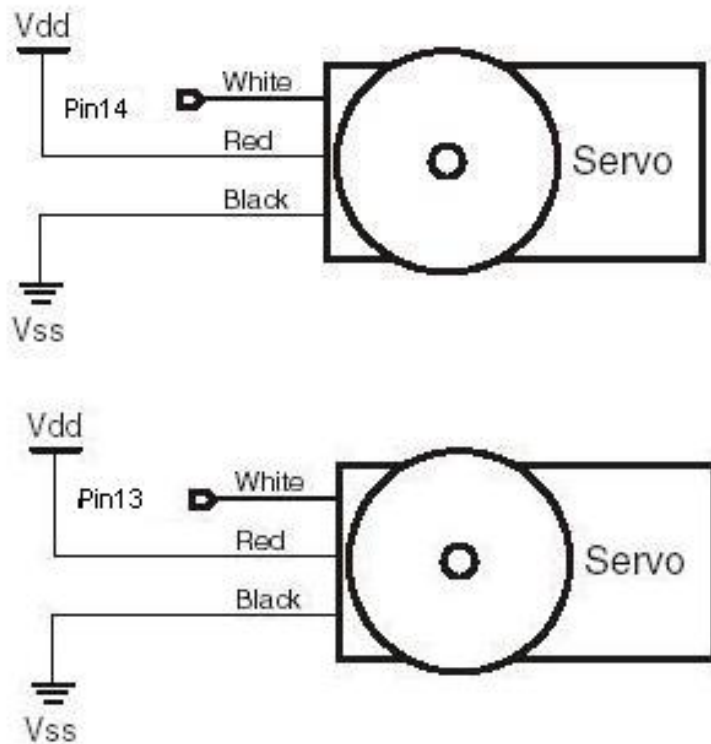


Push Button



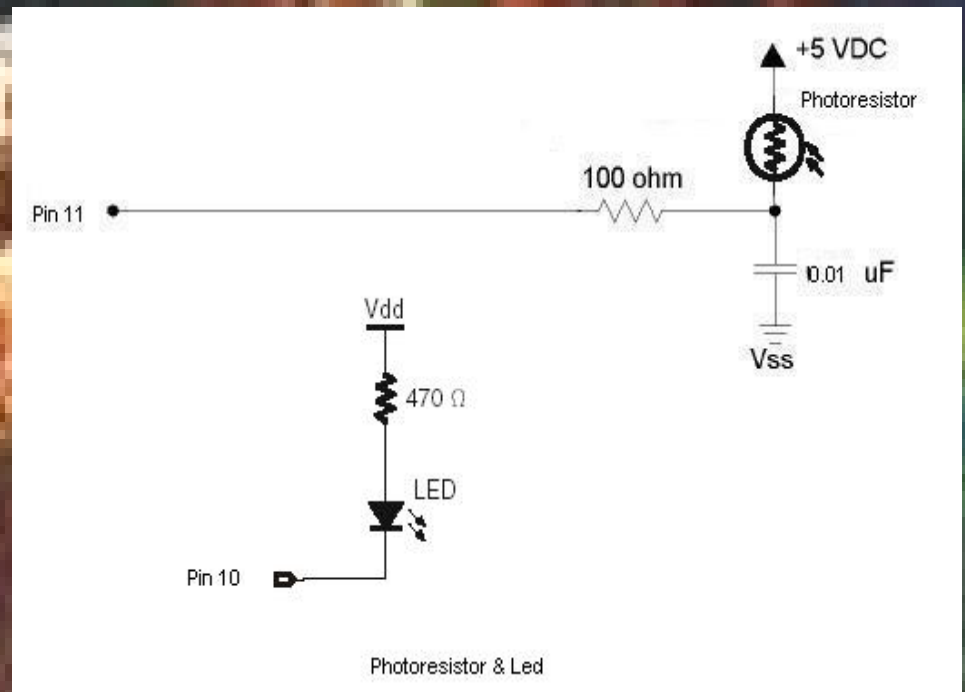
Operating Detail

Servomotors



Servomotors

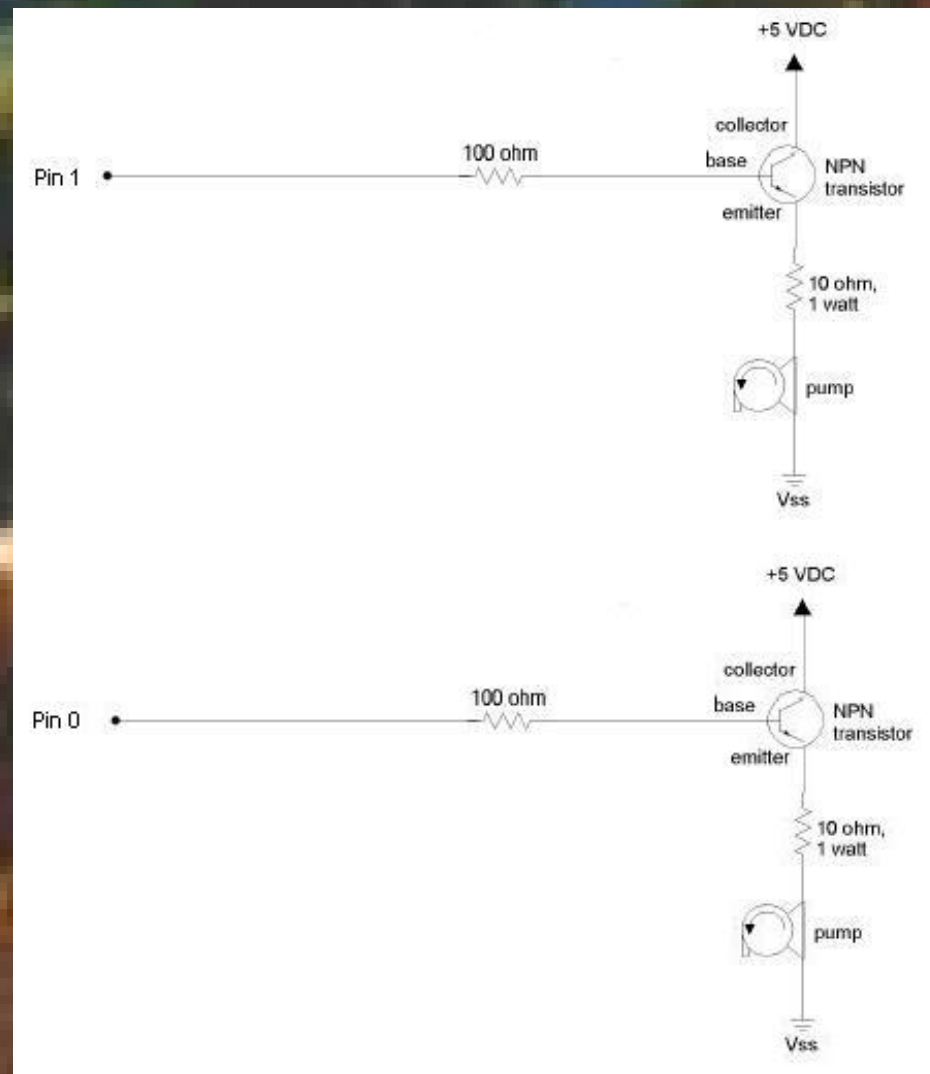
Photoresistor



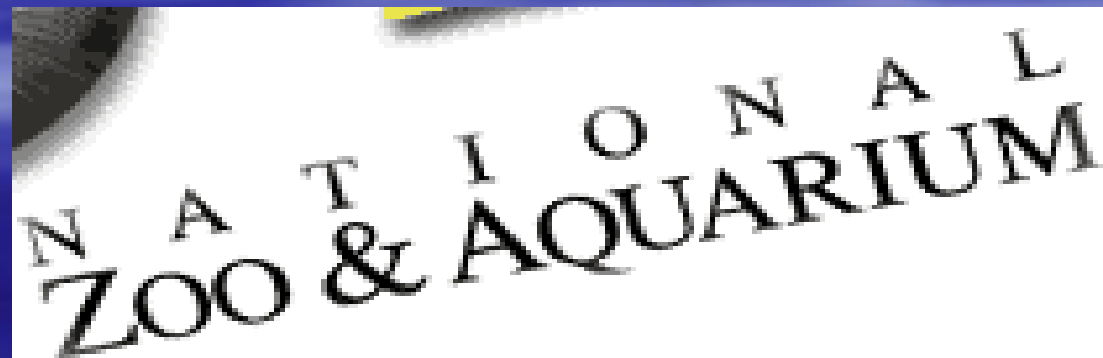
Photoresistor & Led

Operating Detail

Water Pump



Markets



Estimated Cost

■ Board of education & Basic Stamp 2	\$100
■ Water Heater	\$20
■ Food Dispenser	\$40
■ Water Tank	\$10
■ Water Tank Cover	\$5
■ Solid State Relay	\$15
Total Expenses	\$200

Upgrades

- **Higher Consistency Capacitive Sensor**
- **Higher Temperature Accuracy - Math processor**
- **Error-Checking Food Dispenser – Weight Detection**
- **Easier User Input - Digital Dials (LCD)**
- **Customized/Multiple Water sensors**