# Smart Socket

*"If you think that the internet has changed your life, think again. The IoT is about to change it all over again!"*
*— Brendan O'Brien, Chief Architect & Co-Founder, Aria Systems*

# What is IoT ?

"The Internet of Things (IoT) is a system of interrelated computing devices, mechanical and digital machines, objects, animals or people that are provided with unique identifiers and the ability to transfer data over a network without requiring human-to-human or human-to-computer interaction."

But briefly;

*IoT means taking all the things in the world and connecting them to the internet.*
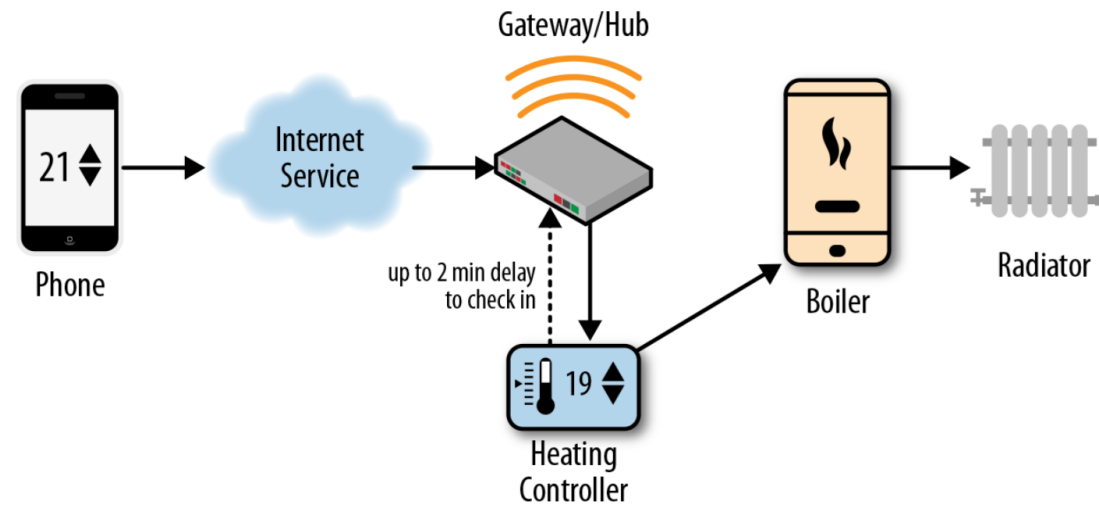
# Why IoT Matters?

➤ When something is connected to the internet, that means that it can send information or receive information, or both. This ability to send and/or receive information makes things smart and manageable.

➤ IoT provides to control, over 95 percent of objects.

# IoT Examples

➢ When you are not at home, you can control the temperature and you can avoid expensive gas bills. By using smart combi boiler device you can save more than 30% of your money.

➢ Who does not worry about forgetting the stove on,or leaving the iron on? With this developing IoT systems, there is no need to worry! All devices can be controlled and turned off, with any device with internet connectivity.

# What is Smart Socket?

Smart socket is a device which can measure the current pass through on it and warns you if the current is more than the stated value.
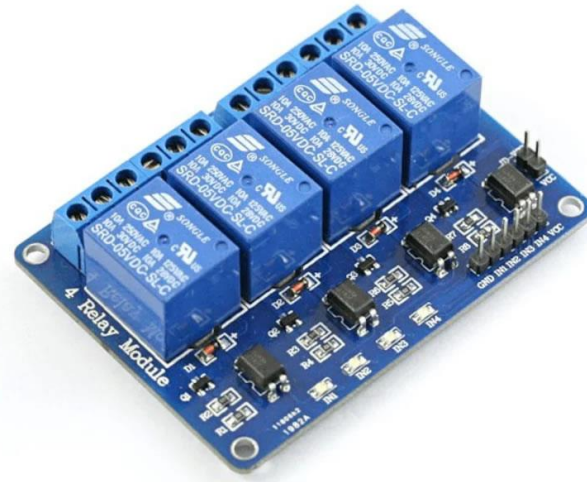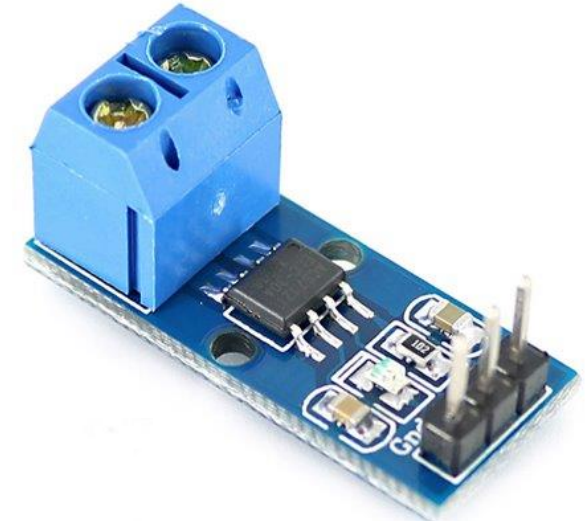
## *Properties:*

▶ Can be switched on or off with the button on it.

▶ Periodically, measures the current pass through.

▶ Calculates the consumed power.

▶ Alerts if the current is more than the stated value.
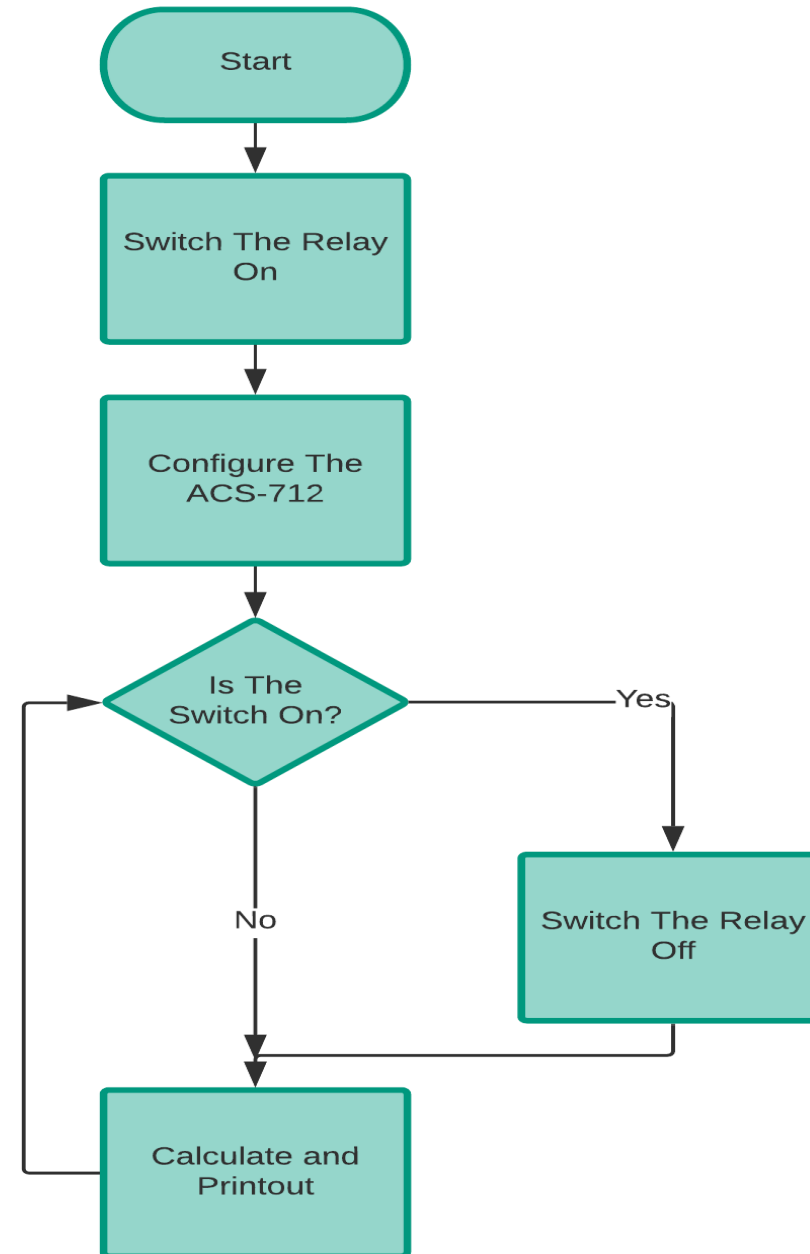
# What are The Components?

- Arduino: Open-source platform used for building electronics projects.

- Switch Button: Can disconnect or connect the conducting path in a circuit.

- Plug and Socket: Connects electrical equipments to the alternating current.

- Relay: An electrically operated switch.

- ACS-712: The sensor that can be used to measure and calculate the amount of current applied to the systems.

- Buzzer: An audio signalling device

**Relay**

**ACS-712**

**Buzzer**

# How It Works?

# Benefits of Smart Socket

► Total concumed power can be calculated and which electrical home appliance consumes how much power can be found.

► Provide security by warning with buzzer if there is a problem with current value.

► After a partial improvement, it can be controlled wireless.

**Before Plug-In**

COM8

```
--------------------------
I = 0.05 Amperes
P = 10.75 Watts
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P = 10.75 Watts
```

☑ Otomatik Kaydırma ☐ Zaman damgasını gö

**After Plug-In**

COM8

```
--------------------------
I = 0.05 Amperes
P = 10.75 Watts
--------------------------
I = 0.26 Amperes
P = 56.90 Watts
--------------------------
I = 0.25 Amperes
P = 54.83 Watts
--------------------------
I = 0.24 Amperes
P = 53.76 Watts
--------------------------
I = 0.25 Amperes
P = 54.83 Watts
--------------------------
```

☐ Otomatik Kaydırma ☐ Zaman damgasını gö

# *Thanks for listening…*