

# Talk-to-Home

## IoT Project : Smart Home Automation

### Introduction

Home Automation Technologies are one of the big gamers in the tech markets these days. With advent of efficient Artificial Intelligence, Machine Learning coupled with Internet-of-Things, it has made some big tech giants to invest hefty amounts in this field.

While with our project we do not use any AI/ML techniques [ but quite easily adaptable to it ], for the sake of brevity, we have projected the IoT side of such technologies.

*Talk-to-Home* provides an interface to the smart devices (end-points) in the home. It is a lightweight, user-friendly and super-responsive way to talk to your home, bringing it to life. After all, what is better than a home who knows you the best?

### Design and Concept

#### Frontend

The webpage provides the Smart Home interface as a web service. It currently involves a **Dashboard**, gauges, surveillance feed. But it is quite easily updatable to customized interfaced, handling the interface for different home devices, interfaces, areas, etc. Hence **Account** feature is added to the dashboard.

**Single-Face-All-In-Place** allows the user to access all the smart devices without navigating a lot. Such a hassle-free interface enables seamless human-to-machine communication. Simple technologies like HTML, CSS, JavaScript and jQuery are used.

#### Backend

All the dynamic features are basically handled by JavaScript and jQuery, but the real power comes from the sensor service APIs. Each sensor service is hosted on a separate server, whose links are being provided to fetch the data after every 4 seconds dynamically. jQuery is used to fire such queries to the server and changed the specific *tag* contents in on webpage.

### Usage

This document is present as a readme file and the source code for the latest version v1.0.9 are available on GitHub <https://github.com/aashishksingh/Talk-to-Home>.

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