# 📘 Guide: Integrating API into index.html

**🎯 Objective:**The current index.html file includes buttons and sliders that currently only log messages to the console. The goal is to replace this behavior with real API requests to control devices such as lights, temperature, and camera.

## 🛠 Steps to Integrate:

* 🔹 1. Locate the corresponding function

Example from <script> in index.html:

function setLightColor(color) {  
 console.log(`Color set to ${color}`);  
 showModal(`Setting color to ${color}`);  
}

* 🔹 2. Replace console.log(...) with a fetch() request to the API

Assume your light control API endpoint is /api/light/color:

function setLightColor(color) {  
 fetch('/api/light/color', {  
 method: 'POST',  
 headers: {  
 'Content-Type': 'application/json'  
 },  
 body: JSON.stringify({ color: color })  
 })  
 .then(response => {  
 if (!response.ok) throw new Error('API call failed');  
 return response.json();  
 })  
 .then(data => {  
 console.log('Server response:', data);  
 showModal(`Color set: ${color}`);  
 })  
 .catch(error => {  
 console.error(error);  
 showModal('Failed to set color');  
 });  
}

* 🔹 3. Repeat the same pattern for other features

Set brightness:

function setLightBrightness(value) {  
 fetch('/api/light/brightness', {  
 method: 'POST',  
 headers: {  
 'Content-Type': 'application/json'  
 },  
 body: JSON.stringify({ brightness: value })  
 })  
 .then(response => response.json())  
 .then(data => showModal(`Brightness: ${value}%`))  
 .catch(() => showModal('Failed to set brightness'));  
}

Set temperature:

function changeTemperature(value) {  
 fetch('/api/temperature', {  
 method: 'POST',  
 headers: {  
 'Content-Type': 'application/json'  
 },  
 body: JSON.stringify({ temperature: value })  
 })  
 .then(response => response.json())  
 .then(data => showModal(`Temperature: ${value}°C`))  
 .catch(() => showModal('Failed to set temperature'));  
}

Toggle camera:

function toggleCamera() {  
 fetch('/api/camera/toggle', { method: 'POST' })  
 .then(() => showModal('Camera toggled'))  
 .catch(() => showModal('Failed to toggle camera'));  
}

* 🔹 4. Optionally, add Authorization header if needed

headers: {  
 'Content-Type': 'application/json',  
 'Authorization': 'Bearer YOUR\_TOKEN\_HERE'  
}

## 📌 Summary:

- You can write everything directly inside index.html – external JS/CSS files are optional.

- Replace console.log with fetch to communicate with the backend.

- Use DevTools (F12 → Network tab) to monitor your API requests.