

TECH SCAN

HOME AUTOMATION



Home automation refers to the use of technology and devices to automate and control various aspects of a home, including:

Lighting: Smart lights can be controlled remotely and adjusted to ambient light levels.

Climate control: Smart temperature-sensing thermostats adjust the temperature based on your preferences and automatically save energy and money.

Entertainment Systems: Voice-controlled smart TVs and speakers to create a seamless entertainment experience.

Appliances: Smart appliances can be started and stopped remotely, monitored for energy use, and even pre-heat or cook food while you're away.

Security: Smart locks, cameras, and alarms can deter intruders, monitor activity, and send alerts to the user.

The benefits of home automation include:

Convenience: control your home from anywhere with your smartphone or voice commands.

Energy Efficiency: smart devices save energy by automatically adjusting lighting, climate control, and appliance usage.

Security: secure homes via smart locks, cameras, and alarms.

Peace of mind: for better home monitoring.

Compatibility: ensuring devices are compatible with each other and with your existing home infrastructure.



INNOVATION TIMELINE



PATENTABLE COMPONENTS

Voice Controlled Home Automation

01

02 Secured Data Transmission

Gesture Based Home Automation

03

04 Facial Expressions Based

Intelligent Home Automation

05

06 Home Automation
Based Multifunctional Sensor

Enhanced Security for Connected
Homes

07

08 Connected House Technology

Connected Cars Technology

09

10 User Friendly Interface

Biometric Based Automation

11

12 Self-Powered Sensors and Devices

Blockchain Based Secured Homes

13

14 Automatic Adjusting Lighting,
Temperature and Music

PATENT STATISTICS

YEAR WISE PATENT FILING TREND



PATENT LANDSCAPE



Database: Questel, Orbit
Date Range: 01/01/2019-27/08/2024

TOP APPLICANTS

HAIER SMART HOME

3775

3432

TENCENT
TECHNOLOGY SHENZHEN

3268

HUAWEI

SAMSUNG ELECTRONICS

3157

2072

GREE ELECTRIC APPLIANCES

QINGDAO HAIER TECHNOLOGY

1625

LEAYUN TECHNOLOGY

1093

BEIJING XIAOMI MOBILE SOFTWARE

930

GUANGDONG OPPO
MOBILE TELECOMMUNICATIONS

873

HAIER YOUJIA INTELLIGENT TECHNOLOGY

843

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TECHNOLOGY DOMAIN

19372

COMPUTER TECHNOLOGY

DIGITAL COMMUNICATION

15949

15586

TELECOMMUNICATIONS

CONTROL

12011

6725

FURNITURE, GAMES

ELECTRICAL MACHINERY, APPARATUS, ENERGY

6171

4127

IT METHODS FOR MANAGEMENT

AUDIO-VISUAL TECHNOLOGY

4046

3969

MEASUREMENT

THERMAL PROCESSES AND APPARATUS

3622

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NOTABLE INNOVATIONS

Patent Application	Priority Date	Title	Assignee
US11936492	Sep 11, 2019	Redundant Control for Wireless Devices in a Home Automation System	Savant Systems Inc
US11907033	Dec 6, 2019	Adaptive Power-On-Reset Generator Systems and Methods for Programmable Logic Devices	Lattice Semiconductor Corp
US11860596	Oct 28, 2020	Photovoltaic Smart Window	Ubiquitous Energy Inc
US11855991	Dec 2, 2020	Management of a Smart Home Automation Community	Vivint Inc
EP4112859	Jun 30, 2021	Motorised Drive Device for a Home Automation Installation	Somfy Activites Sa
US11954988	Sep 3, 2021	Image Processing System for Wildlife Detection and Method Thereof	Bharati Vivek Satya
US20240029433	Jul 20, 2022	Automatic Determination of Indoor or Outdoor State of a Device Based on 3d Geoposition and Volumetric Structural Data	Hewlett Packard Enterprise Development
EP4366101	Nov 2, 2022	Housing Kit for Home Automation Devices and Integrated Home Automation Device	Microdevice S R L
US11974012	Nov 3, 2023	Modifying Audio and Video Content Based on User Input	Avtech Select LLC
CN117527464	Dec 1, 2023	Method and System for Judging Position of User Based on Smart Home	Guangzhou HDL Tech Co Ltd



WHITESPACE

Automated Pet Care and
Monitoring Solutions

Smart Kitchen Applications

Advanced Security Systems with Predictive
Response and Intruder Identification

Mental Health and Well-Being Support
Features (Mood Lighting, Relaxation
Soundscapes)

Voice Control
Alternatives for Visually Impaired Users

Tactile Interfaces and Braille Compatibility
for Non-Sighted Users

Robust Data Encryption
and Privacy Protection Protocols

Seamless Interoperability B/W
Different Brand Devices & Ecosystems

Contextual Awareness to
Understand User Needs and Preferences

Predictive Maintenance
Routines to Prevent Device Failures

Advanced Automation Capabilities
Beyond Simple Schedules and Triggers

Biometric and Health Monitoring Tools for
Proactive Healthcare and Wellness Management

Adaptive Lighting and Sound Systems
for Improved Sleep Quality and Focus

Integration of Artificial Intelligence
for Personalized User Experiences
and Proactive Assistance

User Specific Personalized
Entertainment and Leisure Recommendations

Sustainable Living Practices with AI-Powered
Energy Optimization and Resource Management

Personalized Climate Control

Community Features Enabling Communication,
Collaboration, and Social Interaction
Within Smart Homes and Neighbourhoods

Solar Based Automation

If you would like to learn more about any of these areas or have specific questions, we're here to provide further information and insights. Our team is dedicated to driving progress and staying at the forefront of Home Automation.

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