

Project Name  
Installation Date

### WiFi and Network

<input type="checkbox"/>	<p><b>Which Internet Service Provider (ISP) will you use?</b> <i>The service provider should be contacted to make sure they can supply the speed and service required, and to agree the location of the modem/router.</i></p>	Budget £
<input type="checkbox"/>	<p><b>Where will the ISP modem/router be located in the home?</b> <i>Most smart equipment connects to the modem/router, therefore this dictates where other equipment is housed. If this is the only device providing WiFi, a central location is preferable.</i></p>	Budget £
<input type="checkbox"/>	<p><b>How many Wireless Access Points (WAPs) will you need?</b> <i>Most homes will require WAPs / WiFi extenders. Divide the total area of the home in square metres by 80 to get the approximate number of WAPs required. If you need to extend the WiFi to outdoor areas, weatherproof WAPs will be required.</i></p>	Budget £
<input type="checkbox"/>	<p><b>How many devices connect to the network?</b> <i>As the number of items connecting to the network increases, the main router will need more processing power. You may need a network switch to increase the number of ports (sockets) available to plug products into.</i></p>	Budget £
<input type="checkbox"/>	<p><b>Do you require Power Over Ethernet (PoE)?</b> <i>PoE is a convenient way to power WAPs, touchscreens, door entry and CCTV. A PoE switch is used to power these devices.</i></p>	Budget £
<input type="checkbox"/>	<p><b>Which rooms will be hardwired to the network?</b> <i>Most rooms should be hardwired back to the main router. Hardwired devices get faster data and are more reliable. Hardwiring products increases the average WiFi speed for wireless only devices.</i></p>	Budget £

A robust network, with good data speeds and WiFi coverage, are the foundations on which a successful smart home system is built. A poor network leads to audio and video dropouts, WiFi not covering the complete home and frequent software crashes. When a network is well designed and installed, it will work anonymously in the background, allowing all the smart home products to work at their full capacity

## Video and Audio

<input type="checkbox"/>	<p><b>Which rooms have televisions or screens?</b>  <i>Which rooms require televisions or projector screens? What size should the televisions be? Do they go on wall mounts, cabinets, floor stands or require concealment?</i></p>	<p>Budget £</p>
<input type="checkbox"/>	<p><b>Which video sources will be used? Should they be distributed?</b>  <i>What sources are required on each screen? For example SKY/Virgin Media/BT Vision/Freeview/Freesat/Apple TV/Netflix/Amazon Prime Video/Blu-Ray. Should the set-top boxes be near to the screen or distributed from a central location?</i></p>	<p>Budget £</p>
<input type="checkbox"/>	<p><b>Do you need a control system or touchscreens?</b>  <i>If you have several set-top boxes, or they are distributed from a central location, a control system allows a single remote control or touchscreen to operated several devices.</i></p>	<p>Budget £</p>
<input type="checkbox"/>	<p><b>How many rooms require speakers? What type of speakers?</b>  <i>The mains speaker types are in-ceiling, in-wall and free standing. Some speakers have specific uses, such as for a surround sound system. Some have use specific features, such as being waterproof, portable or concealed.</i></p>	<p>Budget £</p>
<input type="checkbox"/>	<p><b>What music sources are required? What should be distributed?</b>  <i>There are physical sources such as CDs, records and music stored on a local laptop or computer. Streaming sources, such as Spotify or Tidal require network connections. Should the music sources be single-room or multi-room?</i></p>	<p>Budget £</p>
<input type="checkbox"/>	<p><b>Is there a cinema or media room?</b>  <i>Speakers in a cinema or media room might be configured for surround sound rather than music, but can often incorporate both.</i></p>	<p>Budget £</p>
<input type="checkbox"/>	<p><b>Are outdoor or portable speakers required?</b>  <i>Outdoor speakers need to be weatherproof and are more robust than regular speakers. Portable speaker can be used outdoors, but you may need to extend your WiFi network to the outdoor area.</i></p>	<p>Budget £</p>

The first stage of planning your video and audio is deciding what media should be seen and heard where. If there are rooms where you potentially wants speakers or televisions in the future, then run cables for these products. The cost of running cables during the building stage is lower, and the cables can be neatly stored in wall boxes or ceiling voids ready for future use if required.

## Smart Home

<input type="checkbox"/>	<p><b>Is a smart lighting system required?</b>  <i>Smart lighting allows a single button press to set a lighting scene rather than control a single lamp or circuit. You can also introduce automation, so lights come on a certain times of the day or when another device activates. Remote access to lighting helps with security.</i></p>	<p>Budget £</p>
<input type="checkbox"/>	<p><b>Is smart heating required?</b>  <i>Smarting heating can have several benefits such as: controlling individual areas in the house; remotely turning heating and hot water on and off; linking heating to other actions such as changes in the weather.</i></p>	<p>Budget £</p>
<input type="checkbox"/>	<p><b>Are door entry systems, CCTV and intruder alarms required?</b>  <i>CCTV and alarms can be integrated in to the smart home system, allowing cameras to be viewed remotely and doors to be locked or unlocked. Smart alarm systems allow the user to monitor the system remotely, or from any room in the home.</i></p>	<p>Budget £</p>
<input type="checkbox"/>	<p><b>Is automation and motorisation required?</b>  <i>Many devices can link to a control system to simplify their use, such as motorised gates and garage doors. In the home, motorisation can be used to conceal televisions in cabinets, or projectors and screens into ceiling voids.</i></p>	<p>Budget £</p>
<input type="checkbox"/>	<p><b>Is an equipment rack required?</b>  <i>An equipment rack stores AV and smart home equipment in a centralised location. This allows easy access to the devices for service and maintenance, and keeps them out of sight for day to day operation.</i></p>	<p>Budget £</p>
<input type="checkbox"/>	<p><b>Is a control system required?</b>  <i>A control system joins several different smart home products into a single system. This avoids the need to use several remote controls, or smart phone apps, to operate your products. It allows products to integrate, to that a single click will operate several devices.</i></p>	<p>Budget £</p>
<input type="checkbox"/>	<p><b>Should the project to be managed by an Echo14 smart home pro?</b>  <i>Our experts at Control4 can help you plan a system that suits your needs, and manage the installation and commissioning of the products. Contact us at <a href="mailto:info@echo14.com">info@echo14.com</a> to find out more.</i></p>	<p>Budget £</p>

Whether adding a single room through to a whole home renovation, early planning of your smart home products will allow the project to flow more simply. Our experts at Echo14 can help you understand what products are available, and how to integrate them into your home.

## Tips for a successful project

- **Choose your products before construction starts**

*This allows cables to be run to the correct locations*

- **Try to minimise changes during the construction phase**

*Every revision adds cost to the project*

- **Run cables for future use**

*It is easy to run additional cables at the construction phase, allowing for future additions to the system*

- **Plan your WiFi and network**

*A single ISP provided router usually does not have the capacity to successfully run a medium to large home*

- **Decide who is running the cables**

*Normally electricians will run the cables in the first fit, but they will charge additionally for this*

- **Know who is managing the project**

*Usually the AV professional will manage the project, and make incremental visits to check the progress of the work. It is important to know who is responsible for checking the build phase of the project*

- **If you are not sure, ask**

*There are many technical terms used in AV and smart home projects, if you are unsure about parts of the project, ask your AV professional to explain.*