



# thinkingbricks limited

home cinema • multi-room audio & video • lighting control • networking & system integration



## Self Built and Future Ready!

**Summary:** Multi-room audio / video / data distribution  
**Location:** Market Rasen, Lincolnshire  
**Budget:** £10,000

Mr. H. contacted thinkingbricks to discuss a self-build home project. He wanted to understand more about how he could achieve audio and video in a number of rooms, as well as integrating broadband internet access, telephone and lighting design into a centrally controlled system.

thinkingbricks visited the site and met with both Mr. and Mrs. H to discuss the project and take a full brief / design from the site.

From the brief, we prepared a fee proposal / installation schedule which was agreed, and we moved onto the design of the installation.

Using Microsoft Visio™, we prepared a system design for each room, alongside an overall design for the infrastructure. We revisited the site to discuss this with the client, and ensure they understood how the system would come together, as well as checking against the brief that the design would fulfil their needs. The fee proposal was agreed at this stage.

The final design agreed with the client consisted of a 2 zone single source multi room audio system, managed by an Onkyo 2 zone amplifier. One zone would deliver 5.1 cinema surround sound to the main living room, and the other zone offered 2 channel stereo to all the other rooms in the house via an audio hub. The TV distribution system was agreed, as was the telephone and broadband distribution.

### First Fix:

thinkingbricks began working alongside the site electricians to install the cabling as per the design. We printed and supplied all the necessary cabling labels for the site.

After discussions around speaker location for the 5.1 speaker system, and talking through the pros and cons of each, Mr. and Mrs. H expressed the desire to place them in the ceiling. We marked out the exact locations in relation to the proposed location of the sofa and ran 2 core speaker cable to each speaker point.

The security gates were being constructed, so we placed runs of CAT5 to the entrance along with a run of CT100 digital coax for the entry system and CCTV camera considered at the time. We also ran CAT5 cable from the gate to the front door of the property, and back from the front door to the hub room so that a telephone system could be used to open the gates and door.



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We placed CAT5 cables for local IR receivers (ceiling mounted), in each room. These were wired back to the hub room. This allows the client to use their own remote controls in each IR ready room, to control equipment in the hub room.

## **Second Fix:**

A few months later, thinkingbricks began the installation of the CAT5 patch panels, audio bus, TV distribution amplifier and termination of the CAT5 into wall sockets in each room commenced.

Installation of the volume controllers, and the in-ceiling speakers through the main body of the house was the next step.

The installation of the CRIS enclosure included the installation of the broadband router and Ethernet switches, ready for BT connection. All the terminated data sockets were verified as fully operational on first test. The CRIS infrastructure was viewed on site by the distributor, Jason Aldous and passed (*with distinction!*) in accordance with his installation standards.

A small hi-fi unit was used to test the speaker system, from the faceplate in the living room. All speakers were correctly phased and the volume controllers operational.

The home cinema room was the final stage. The living room speakers were agreed as a higher specification for the proposed home cinema. These were installed in the agreed positions into custom made enclosures. We installed a subwoofer for the bass frequencies, and ensured cabling was in place for a plasma screen, which was next on the wish list!

## **Progress since final sign off:**

The client has asked to return to look at providing him with an option to distribute and control music from a PC across the existing audio system.

We have agreed the best method of doing this would be to use a networked music streaming device with a wireless handheld controller. A SONOS digital music system was subsequently been fitted, with great results.

Mr and Mrs H asked for advice on selecting a plasma screen for the lounge and have subsequently purchased a Sony screen which matched their needs and budget perfectly.

thinkingbricks has installed a gate entry system, with rechargeable mobile handset, which can open the gate from anywhere in the house or garden.

## **Final cost of installation:**

**£9,500 including labour and installation**



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First fix cabling, making sure to label everything!



The result of second fix in the hub room – neat, flush mounted with everything behind closed doors!



Volume controls in matching finish, speakers in the ceiling and entry phone in the hallway