

**Project – Modern house**

**Client – Private home owner**

**Location – Huddersfield**

**Completion Date – January 2010**



### **Project overview**

Contemporary modest new House near Huddersfield, externally the architecture of the house is modern with traditional local Yorkshire stone, the modern styling complete with energy saving features is aimed clearly to set the property apart from the usual "leafy area" developments. The house has been built using cutting edge technology in the form of the building using a lightweight steel structure which is wrapped with insulated concrete formwork to create high insulation and U-values adding flexibility to the design.

### **Technology implemented**

KNX dimmed and switched lighting circuits that can be used to set scenes/moods for each room individually. KNX also allows for total control for the whole house taking care of the under-floor heating, ventilation systems. KnX whole house control with a colour touch panel, lighting scenes, heating control, weather station. One of the clever advancements the home owner has implemented is the blinds that are automated and integrated in to the double glazed windows, the home owner can select to operate the blinds with either remote control, or the KnX system wall controllers, KnX system can elect to open close or tilt the blinds based on time schedule or external light levels, the KnX system can also elect to close the blinds on the odd occasions whereby too much sun light is flooding in to the house and then open the windows to ventilate the house

The home owner has carefully selected a boiler that utilises wood burning pellets from a sustainable and environmental view this will provide energy savings coupled with the water based under-floor heating throughout the entire house with 12 zones some rooms are controlled using room controllers with built-in thermostats removing the need for separate lighting and heating control, with careful control over the heating and ventilation it is possible to provide a sensible and energy efficient control to allow the heating and cooling to seamlessly work together. Incorporating external weather station and temperature sensors, the whole house heating/cooling can respond to weather and temperature fluctuations.



## Energy efficiency profile

The whole KNX system works seamlessly from normal comfort mode, lowering temperatures both when rooms are unoccupied a few degrees lower, and at night when everyone is asleep. Close control of the HVAC systems combined with the lighting control and presence detection. KnX control over the blinds and windows linked to weather conditions. The implementation of the wood pellet boiler adds to the overall energy saving. This represents a big saving in fuel bills.

## About

Discovery systems are one of the leading Electrical engineers and Systems Integrators specialising in open intelligent building control and automation using KNX technology. We offer a wide range of control solutions in all market sectors and have a range of project experience throughout the UK.

## Contact

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