

Welcome to the living area of the home



Underfloor heating

£1,850

Cost (will vary by property)

£67

Savings per year

287kg

CO₂ savings

While wall and loft insulation are commonplace insulation techniques, underfloor insulation is considered a difficult procedure and is often disregarded. Thanks to modern technology, however, it's easier than ever before. **Approximately 10%** of heat is lost through suspended timber floors.

While you could replace the floorboards with concrete, you'd lose the warm, welcoming aesthetic and potentially prevent the property from breathing. Underfloor insulation is therefore a preferable alternative and it no longer has to be a difficult process!

What is Q-Bot?

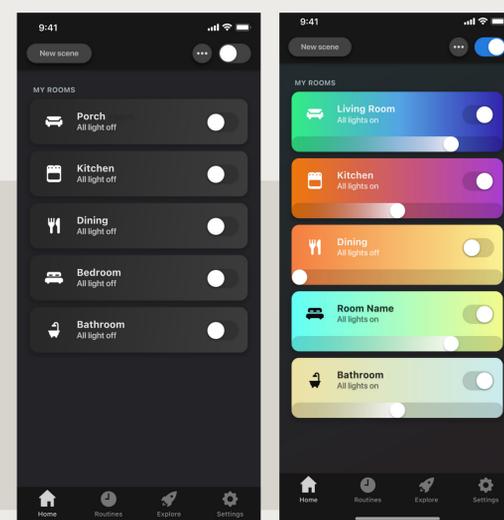
Q-Bot is an innovative robotic device designed to install underfloor insulation materials without disrupting the existing floor structure. It sprays expanding polyurethane foam on the underside of floorboards sealing any gaps and reducing draughts. In fact, Q-Bot can reduce the average home owner's heating bills by **16%**, or **£150 a year**. And while you may assume you'd have to take the whole floor up, only a small section of the flooring is affected. Most of the carpet and furniture can stay in place, which is ideal if a property is occupied.

LED lighting

Energy Saving Trust estimates that the average home could save **£40 per year** by switching to energy-efficient LED lamps. These lamps convert energy to light more efficiently than incandescent or halogen bulbs, with little lost as heat. Plus, they also last a lot longer so they need to be replaced less frequently.

We opted to add a state-of-the-art Philips Hue smart lighting system as part of the retrofit project. Not only does it save energy, but lighting levels and colours can be adjusted from a smartphone or set to a schedule, so they can come on at specific times of day or night. It can even be set to turn on and off depending on whether the residents are home or not – and there is no waiting around for the filament to warm up.

The installation process was simple too. We replaced the existing light bulbs with Philips Hue lights throughout the property. Pendants were installed in the bedrooms, spotlights in the hallway and landing and modern strip lighting was added in the kitchen. We also added external lights at the front and rear of the property for security. A Hue Bridge device, which attaches to the wifi router, was then plugged in so that residents can simply control the entire system through their smart devices.



Robot being controlled to spray insulation foam under suspended floor.

Area being insulated at 47 Greenleaf - 35.4m² ■
Plan of ground floor area that will be insulated.

Some helpful tips you can do at home

Use your heating controls sensibly – the thermostat at home should be set to 21 degrees.

Close curtains at dusk to keep heat in.

During hot days keep curtains shut to keep heat out.

Turn lights off when leaving a room.



Find out more →
walthamforest.gov.uk/ecohome

