

# Keep the Heat Information and Training 2025-26



[www.sustainablesuffolk.org.uk](http://www.sustainablesuffolk.org.uk)



# Today

- What is thermal imaging
- Taking part
- How to use the cameras
- Promoting your surveys
- How to help residents with follow up advice
- Any questions



# What is thermal imaging?



Thermal cameras detect and measure infrared radiation (the amount of heat coming from an object)



The camera shows you where heat is escaping



Reds, whites, and warmer colours = heat leaking out

A thermal imaging survey could:

- ✓ identify places which might have draughts
- ✓ detect whether cavity wall insulation is patchy or missing
- ✓ detect areas with less loft insulation

You can help people improve their home's energy efficiency for:

- ✓ Reduced fuel bills
- ✓ Warmer home
- ✓ Better health and well being
- ✓ Reduced carbon emissions

Thermal imaging is all about the colours.

Allows you to see the heat leaking out of a building.

Pointing a thermal imaging camera at the wall of a house will show you differences in colour between different areas, like the windows and the walls.

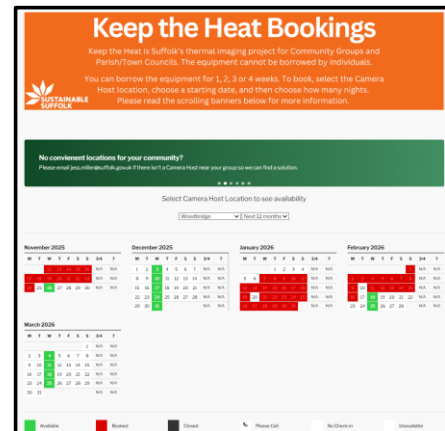
They can't look through the house.

You don't want to see any reds, whites and warmer colours which would mean the heat is leaking out.

## Taking part

1. Book equipment
2. Advertise
3. Contact Camera Host
4. Collect equipment
5. Do the surveys
6. Resident next steps
7. 3 Month Survey

- Woodbridge
- East Bergholt area
- Ixworth
- Halesworth
- Liston (near Sudbury)



[www.keeptheheatbookings.innstyle.co.uk](http://www.keeptheheatbookings.innstyle.co.uk)



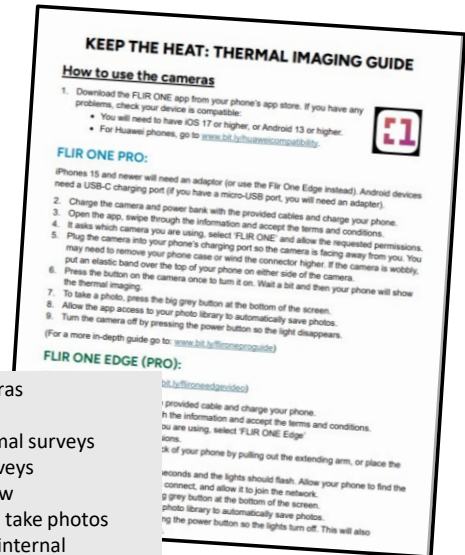
- Thermal imaging cameras are stored with Camera Hosts around the county. You can book the equipment that is most convenient for you.
- Link to booking website
- 5 different locations to choose from. Can book for 1, 2, 3, 4 weeks and could book one slot in December and one in February. All the bookings start on a Wednesday and finish on a Tuesday ready for the next group
- Locations are based off where the groups who completed the expression of interest form to take part are located. If there isn't a Camera Host near you let me know.
- Once you have your booking the next step is to advertise the project in your community. It's important that you do this before you get the equipment! You want to tell people in advance about this opportunity to have a free thermal imaging survey coming to them, and book some people in.
- Then nearer the time of your booking, email camera host to arrange a collection time on your start date.

# The Equipment

## What you'll find in this box:

- 1x Flir One Pro
- 1x Flir One Edge Pro
- 2x camera charging cables
- 1x power bank
- 1x power bank charging cable
- 4x hi-vis vests
- 1x thermal imaging guide

- How to use the cameras
- Camera top tips
- When to do the thermal surveys
- How to plan your surveys
- What the colours show
- Examples of where to take photos
- Links to external and internal interpretation guides



When you pick up the equipment box from your camera host here's what will be in the box.

There will be 2 cameras and a power bank for the older camera as it has a shorter battery, 4 hi vis vests and the thermal imaging guide.

The guide explains everything you need to know

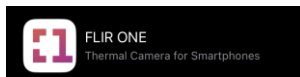
# Using the cameras



Flir One Edge Pro

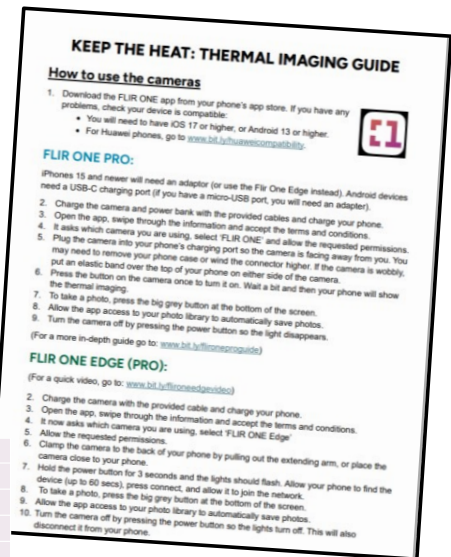


Flir One Pro



iOS 17 or Android 13

| Camera Host   | Flir One Pro |
|---------------|--------------|
| Ixworth       | Android      |
| Halesworth    | iPhone       |
| Liston        | Android      |
| East Bergholt | iPhone       |
| Woodbridge    | Android      |



- This is what the cameras look like.
- The cameras work through a smartphone or tablet. You will have the guide to explain how to connect your phone or tablet to the camera and how to use it.
- Someone in your group will need to have the FLIR ONE app downloaded. This works on most phones but needs operating system of ios17 or higher for iPhones, or Android 13 or higher.
- Best if two people have it so that then you can use both cameras at once and survey more homes with 2 teams.
- The power bank is for the older camera as the charge doesn't last very long. The other one should last at least 2 hours but can always use another power bank.
- Flir One Edge Pro - connects to your phone through Bluetooth so works with either an android or iPhone. Can either have it near phone or extend it out to clamp to back of phone.

- Flir One Pro – plugs into bottom of phone. There's one that works with android phones and one that works with iPhones. But not iPhones 15 and higher – need adaptor.
- Which Camera Host you book depends on which type you get. But every box will have one of these cameras that works with both types of phone.
- Practise on your own homes first so you feel confident

## When to do the thermal surveys



10°C temperature difference



Heating on for 2 hours before



At least 1.5 hours after sunset.



Avoid surveying after rain



Early morning or evening

Ideally, there needs to be a signature difference between the inside and outside temperatures – around 10 degrees

The central heating needs to have been on high for a couple of hours beforehand.

If it has been sunny all day, you need to make sure it's been at least 1.5 hours since sunset due to solar gain on the house

Avoid surveying after rain as it will distort the images.

Survey in the early morning or in the evening.

Top tip = have some back up evenings

## Planning your surveys



20-30 minutes per house



Advertise before loan



Survey the homes with the residents



Could target homes with a low EPC rating



Have a few back up evenings



Practise on own homes first

[www.gov.uk/find-energy-certificate](https://www.gov.uk/find-energy-certificate)

Allow around 20-30 minutes per house.

Advertise the surveys in advance resources to help

Make sure you survey the homes with the residents. Their knowledge of their house will inform the survey, and they can learn what they need to improve.

You can also survey the back of their home and inside too if they want.

You could target homes with a low EPC rating (Energy Performance Certificate).

You can use [www.gov.uk/find-energy-certificate](https://www.gov.uk/find-energy-certificate) to find homes in your area.

Have a few back up evenings as you may have to reschedule due to poor conditions.

Practise on own homes first

## Promoting your project

- Find out how to have a
  - ✓ Warmer home
  - ✓ Cheaper energy bills
  - ✓ Reduced carbon emissions

Energy efficiency measures have saved the average British household about £1,000 a year in energy bills



Key message = they can find out where their home is losing heat and how they can remedy it! And it's free

Want to advertise before you get the equipment

Local groups e.g. church or other religious groups, men's sheds etc.

Have a stand at events e.g. Christmas Fair

Previous groups have been successful when talking at repair cafes and food banks

The main thing to say is saving money and warmer homes.

# Promoting your project

The screenshot shows the Sustainable Suffolk website with a navigation bar including 'WHAT WE DO', 'HOW TO TAKE ACTION', 'EVENTS', and 'COMMUNITY NETWORK'. A 'disable animations' button is in the top right. The main content area is titled 'Advertise for households to sign up for a thermal imaging survey:' and contains four resource cards:

- Sign up for a thermal survey flyer**: Includes an image of a flyer and an 'EDIT AND DOWNLOAD' button.
- Editable social media graphic**: Includes an image of a graphic and an 'EDIT AND DOWNLOAD' button.
- Non-editable social media graphic**: Includes an image of a graphic and a 'DOWNLOAD' button.
- Parish magazine article template**: Includes an image of a template and a 'DOWNLOAD AND EDIT' button.

This collage features several promotional items for the thermal imaging survey:

- A flyer titled 'Receive a FREE thermal survey of your home' with a 'To book, email us with your preferred dates' instruction and an 'INSERT GROUP EMAIL' placeholder.
- A 'Community Thermal Imaging Project' flyer with a house image and a 'Receive a free thermal survey of your home' headline.
- A small graphic titled 'Imaging survey of your home' showing a house with heat loss indicators.
- A small graphic titled 'Energy camera installation' showing a camera being used on a house.

[www.bit.ly/thermalresources](http://www.bit.ly/thermalresources)



Lots of resources on the website to help promote

## Other resources

Guide to thermal imaging

DOWNLOAD

Risk assessment template

DOWNLOAD

Data collection sheet

DOWNLOAD

Equipment box list

DOWNLOAD

Booking agreement

DOWNLOAD

Next Steps

OPEN LINK

Advertise for volunteers:



Volunteers needed leaflet

EDIT AND DOWNLOAD



Volunteers needed social media graphic

DOWNLOAD



Parish magazine article template

DOWNLOAD AND EDIT



[www.bit.ly/thermalresources](http://www.bit.ly/thermalresources)

**PLEASE ADAPT THE ENCLOSURES TO BEST SUIT YOUR LOCALITY FOR POLICY OR GUIDANCE**

Enclosure for:  Enclosure date:  Enclosure name:

**Group Thermal Imaging Data Sheet**

Please use this sheet to tally your group's survey data. Then, when you return the equipment, please use the form which you will be sent to submit the data. This means we can see how useful the equipment is to report back to our funders.

| All of the survey |                                               |
|-------------------|-----------------------------------------------|
| Surveyed          | Type of home                                  |
| Surveyed          | Type of building                              |
| Surveyed          | Age of Properties                             |
| Surveyed          | Household suggested to...                     |
| Surveyed          | Household taking action to improve their home |

Also on that website page are more resources to help you

Data Collection Sheet – tally as you do the surveys.  
Then upload into feedback form afterwards which you will be sent at the end of your loan

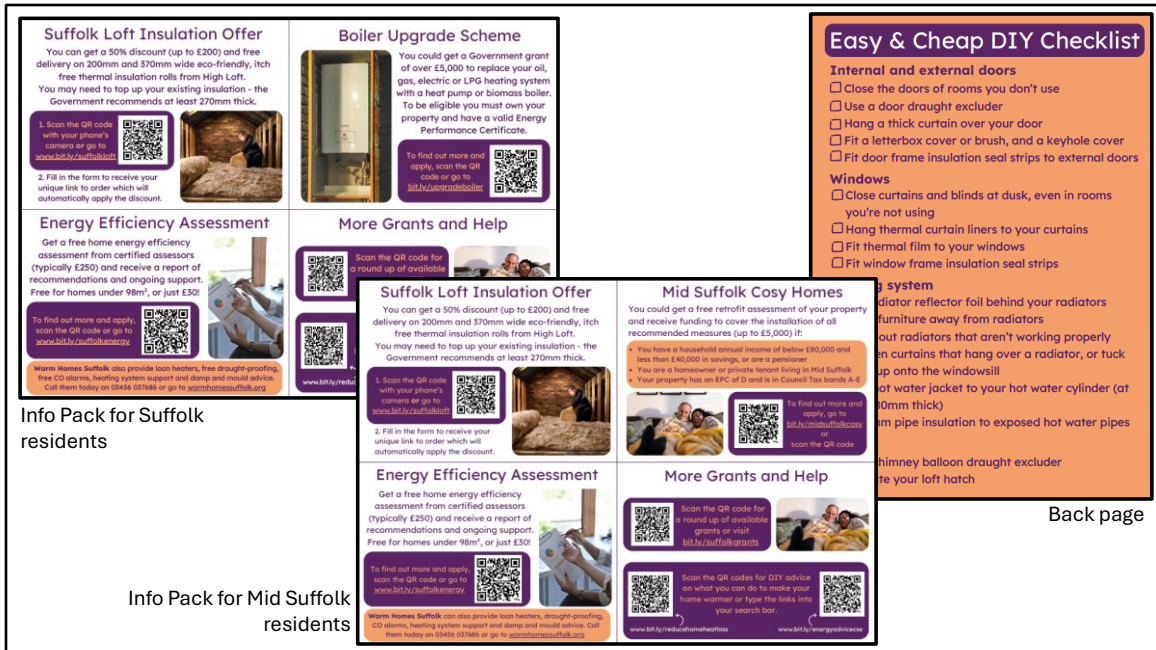
## Next steps for residents

What now?

- Funding
- DIY advice
- Info Packs
- Next steps webpage



A key question on the residents' mind is what to do now.  
Info packs – DIY advice and available funding



You don't need to memorise everything as have the memory aid of the info pack  
Will be able to collect as many copies as you need from your Camera Host  
A5 Booklets  
Mid Suffolk Cosy Homes only available for people in Mid Suffolk so there's a separate Info Pack for them

# Draughtproofing

Stop cold air coming in and prevent warm air from escaping



Draught proofing is one of the cheapest and easiest ways to cut energy costs in the home. The aim is to stop cold air coming in and prevent warm air from escaping. Can see 10-20% energy savings

You might see in a thermal image that heat is being lost through the windows and doors

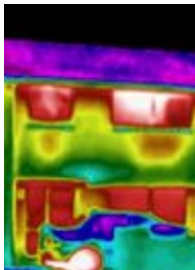
Here are some examples of those DIY things that residents can do to make their homes warmer and their energy bills cheaper that are talked about in the Info Pack

- Exterior doors – door insulation strips and letterbox brushes and keyhole coverings
- Windows - **Fit window frame insulation seal strips and thermal insulation film**
- Interior doors - Cut draughts with 'snake' draught excluders, brushes or similar strips of material. These can be easily handmade or bought.
- Unused chimneys - Fit a chimney draught excluder
- Loft hatches - Use strips of draught excluding material fitted around the

edges of the frame, and insulate the hatch itself

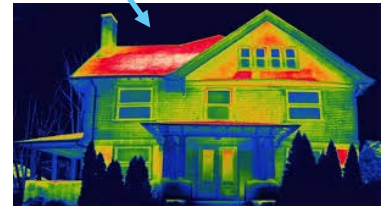
# Insulation

- Typically, 30-35% of heat will be lost through uninsulated walls and 25% through an uninsulated roof.
- Insulation helps keep heat in during the colder months and out in the summer

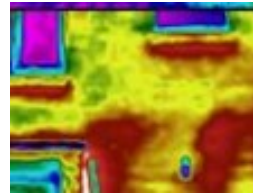


~£10

Reduce heat loss →  
reduce bills



Recommended 270mm depth



- You might see the heat escaping from a radiator on the thermal images
- Could suggest fitting radiator reflective panels for the resident. They reflect heat back into the room, instead of letting it escape through an external wall.

The photo is an extreme example but you might see poor loft insulation in the thermal image. Some people may have some but not enough: recommended government thickness in 1980s was 25mm-50mm. Could mention the loft insulation offer on the info pack

You might also patch wall insulation like in this image. There are 3 main types of wall insulation: cavity wall, internal and external insulation – depending on which type of wall a home has

# Wall Insulation

Internal wall insulation



Cavity wall insulation



External wall insulation



There are 3 main types of wall insulation: cavity wall, internal and external insulation – depending on which type of wall a home has

- Internal insulation involves fitting rigid insulation boards to the wall, or by building a stud wall filled in with insulation material. It is generally cheaper than external solid wall insulation but it will make rooms smaller and is more disruptive
- External solid wall insulation involves adding a layer of insulating material to the outside walls of a building. It avoids losing any inside space
- A cavity wall is made up of two walls with a gap in between, known as the cavity. This cavity can be packed with insulation to help retain the heat within a home.

# Interpretation guide

## Detailed interpretation guide

**Radiators** – Look out for hot spots where radiator are leaking heat through the wall from poor insulation behind them (*under the windows in image*).



**Bay windows** – Double bays are often uninsulated below the windows and there is seldom any insulation in the roof of single bays.



**Uninsulated walls** – Cavity walls may not be insulated. Solid walls are often uninsulated (*image shows house with cavity wall insulation on right compared to neighbours on left*).



**Sheltering effect** – patches under the eaves, window ledges, sheltered corners and under porches (*as in image*) will appear slightly warmer than the rest of the wall as the air isn't circulating so much.



**Thermal bridges** – there may be hotter areas due to thermal bridges crossing the cavity wall made by structures such as lintels over windows (*shown red in image*), or at the intersection between upstairs and downstairs. Corners are a particular type of thermal bridge. They will be warmer than the main wall when seen from outside. These are structural issues which cannot be easily addressed.



**Extensions** – modern extensions may appear colder (*as in image*) than the main house as cavity wall insulation better than it used to be. Extensions over 20 years old may be made of uninsulated solid wall and so will appear warmer.



**Poor insulation** – inconsistencies in the temperature of walls may be due to patchy cavity wall insulation or places around structural features like windows where it might not have reached.



[www.bit.ly/thermalinterpretation](http://www.bit.ly/thermalinterpretation)



On the resources webpage we have a detailed interpretation guide

# Next Steps webpage



[www.bit.ly/thermalnextsteps](http://www.bit.ly/thermalnextsteps)

## Advice and Information to Share with Householders:

- The Energy Saving Trust is an independent organisation with lots of useful information so is a great resource to recommend to householders:
  - [How to reduce home heat loss](#)
  - [Buying energy efficient products](#)
  - [Heating your home](#)
- The Centre for Sustainable Energy is a charity fighting to end the suffering caused by cold homes and have lots of [energy advice](#) which is also all on downloadable [fact sheets](#).
- [EcoFrenzy](#) has lots of energy saving solutions, and also includes the carbon saving from each solution.
- If anyone needs energy support, [Citizens Advice](#) are there to help.
- [National Energy Action](#) also have lots of resources and advice to help.
- [Information on heat pumps](#), find local [open heat pump homes](#) and the up-to-date [Which guide](#)
- Find a building's [solar potential](#)
- Sustainable Suffolk's digital [Energy Advice Tool](#) recommends home specific energy improvements and creates carbon reduction plans
- [Historic England](#) and [The Society for the Protection of Ancient Buildings](#) have lots of advice for energy efficiency and retrofit in older homes

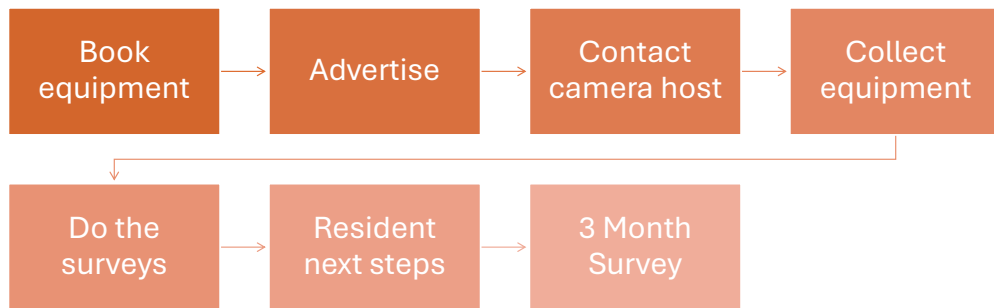
If householders would like a further survey, West Suffolk Council offer a free energy advice survey to help homeowners, private renters and landlords in West Suffolk assess their energy usage and identify ways to reduce costs. If anyone is interested, they can contact the Healthy Homes

Advisor: [environment@westsuffolk.gov.uk](mailto:environment@westsuffolk.gov.uk) or 01284 757 400.

Or, if households are not in West Suffolk, they can book a [free home energy assessment](#) phone call from B&Q who will create a personalised action plan.

Signpost residents to different advice websites

## Taking part



Taking part steps from beginning

## Keep the Heat since 2022

63% of residents whose homes were surveyed and identified as needing energy efficiency improvements, made at least one upgrade.

2024/25:

- Stanton Parish Council surveyed 30 homes in their 2 week slot
- Natural Boxford and Hadleigh HEAT teamed up for 4 weeks and surveyed 53 homes



153 groups have taken part  
(some took part in multiple  
years)



1818 homes have  
been surveyed



The thermal camera  
equipment was booked out  
for a total of 512 weeks

Project successes so far

## What next

[jess.miller@suffolk.gov.uk](mailto:jess.miller@suffolk.gov.uk)

- Book your thermal equipment loan
- Access the website resources to advertise
- Download the FLIR ONE app



[www.keeptheheatbookings.innstyle.co.uk](http://www.keeptheheatbookings.innstyle.co.uk)



[www.bit.ly/thermalresources](http://www.bit.ly/thermalresources)

**Any questions?**