

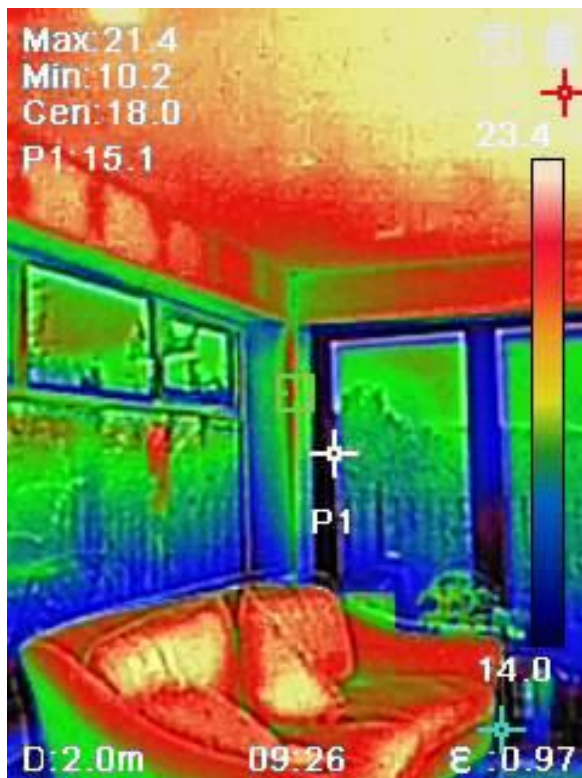
## Adventures with our Thermal Camera. January 2024

In this cold weather, we've been seeing what our Thermal Camera can tell us about where the heat is escaping from local homes. This helps inform discussion of what the options are to reduce heating and energy bills. People we've visited have found the images intriguing – sometimes they confirm the expected, sometimes there's a surprise.

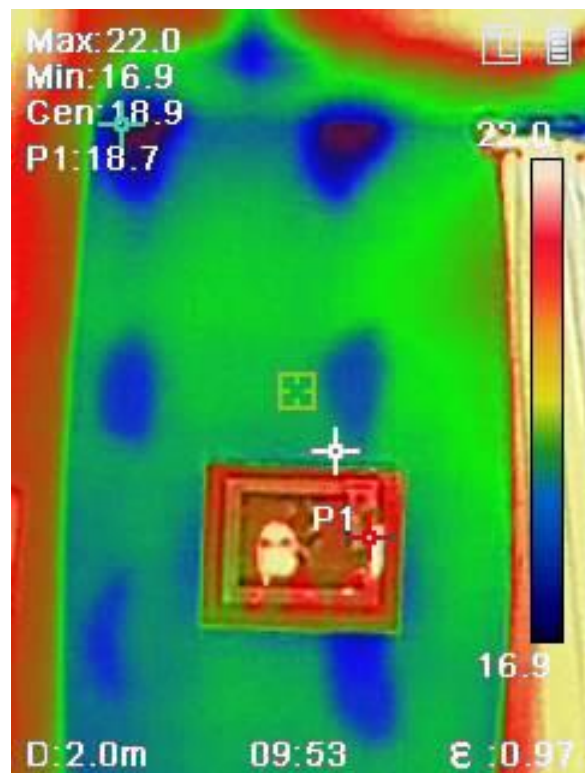
The camera certainly shows up how cold the edges of doors and windows can be – especially along the base. And especially along opening edges, where it's so hard to get a perfect seal.

*In the photos, black is coldest, blue is cold, and red is warm.*

*Note that the colour scale (see bar at right side) adapts to what is in the frame.*



*Cold edges to patio doors*

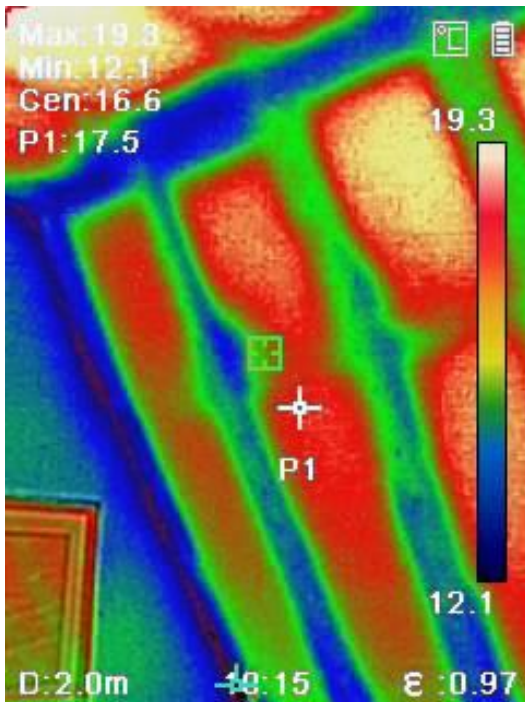


*Cement dabs used to fix plasterboard show up as colder than the rest of the wall*

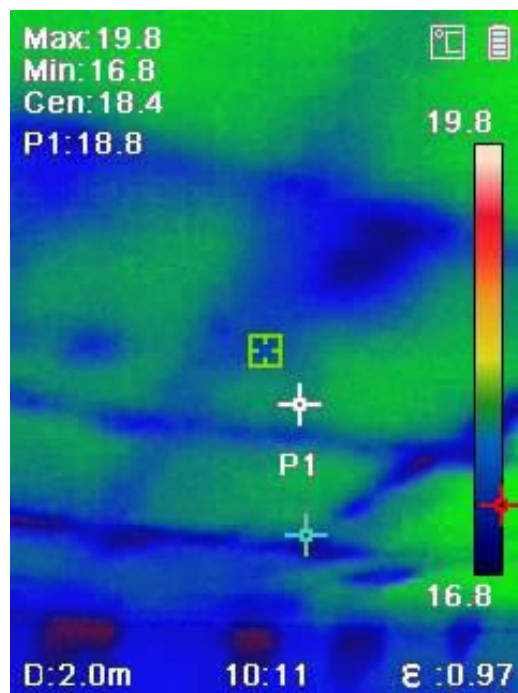
We've spotted a few signs of uneven insulation – squirrels in the loft can play havoc with the rockwool, and if there have been workmen in the loft, it's worth checking the insulation has been put back fully.

Loft insulation is one of the most cost-effective measures to take. Most people by now have a few inches between the rafters. What the camera has shown up is that there's a good

reason for the current recommendation, to add another layer above the rafters. The rafters let heat escape more than the rockwool, which creates cooler strips.



*Attic room: slope under the eaves showing rafters creating cold lines, with insulation between*



*Rafter pattern and cold spots show in thin roof insulation, and at top of wall*

The camera can help to spot whether insulation for different sections of wall and roof meet up properly. Cold spots often show up along wall corners, and outside top edges. These are the spots to watch for damp and condensation. (above, right)



*From the outside: Left half is solid brick – losing heat fastest; right side is insulated cavity wall.*

Checking the house from the outside can highlight differences due to construction. The left side wall (above) is warmer than the right, because it's solid brick, and leaking more heat. Ornamental timber cladding in some homes had no bricks and little insulation behind it, creating a serious heat escape route.

All in all, we've found the camera is both informative and interesting to residents. We plan to continue using it throughout the winter months.