



EXPERIMENTS

Work with a friend to do a distance test. Can you make it to 30, 40 or 50 metres apart whilst still hearing a signal?

Set up a series of mirrors, and see if you can bounce the infrared beam to the receiver.

The sun produces a huge amount of infrared light, which interferes with the INFRA PHONE's transmission. Try using the INFRA PHONE at night.

Look for other household devices that use IR. Point one at the receiver and see if you can hear it.



Use an IR camera filter to look at the transmitting device. Try this in hazy conditions - fog or a smoke machine may make the infrared beam more visible.

INFRA PHONE

An experimental communication project developed by Hannah Kemp-Welch during a residency at Wave Farm, September 2026.

ABOUT

The INFRA PHONE is a telephone that communicates using a beam of invisible light. Short range but immune to hacking, these DIY devices invite play and cooperation.

As the radio spectrum is increasingly shaped by commercial interests, this project asks - what can we learn from radio's neighbour?

A film accompanies INFRA PHONE, shot on 16mm infrared stock. The film attempts to make communication visible and, in so doing, investigates the infra of everyday media - the beyond and below.

HOW TO USE

INFRA PHONE is split across two cans. The larger is the receiver, the smaller, the transmitter.

The transmitter contains a small lens on one side and a microphone on the other.

The receiver houses a speaker on one side and a large lens on the other.

Both have USB cables - to turn on the devices, simply plug them into a powerbank. **Take the powerbank out when not in use** so the devices do not overheat - there is no other on/off switch.

QUESTIONS

What does an infrared transmission pass through, and what does it carry? What lurks below or beyond the devices I communicate with?

How attentive is my listening, when communication is global and instant?

Can this device help me to listen otherwise?

Could DIY making connect me to the media infrastructures I use daily - am I any the wiser now?

Point the large lens of the receiver directly at the small lens of the transmitter. Speak through the transmitter microphone and hear it coming out of the receiver's speaker.

Alignment is key! Infra red light travels from point to point in a straight line. It cannot turn corners or pass through objects. It is hyperlocal - and in optimum conditions may carry sound 50 metres or more - if you can catch the beam! **Warning:** avoid staring at the transmitting beam for a long time. Although this is a low power device, it's likely not too good for eyes.

