

Using a Cell Phone Camera as an Infrared Detector



1. Turn on your cell phone camera so that you can see the field of view (like you are ready to take a picture).
2. Have your partner point a television remote control at your camera and push and hold any button on the remote control.
3. You should be able to see a red flashing light on your cell phone camera screen, even though you will not be able to see the same light with your eyes. This demonstrates that your cell phone can detect and make visible this invisible infrared light signal.
4. If your partner has a different cell phone, compare your observations. Do all cell phone cameras have the same infrared sensitivity?

If time permits, try converting the infrared remote control signal into sound.

1. Turn on the speaker at your station. Aim the remote control at the solar panel connected to the speaker.
2. Observe what you hear when you press and hold any button on the remote. Is your observation the same when different buttons are tested?
3. Shield the solar panel with your hand. Is your observation the same?
4. Shield the solar panel with other materials at your station. Compare your observations.