# SDR in ORBIT: Spectrum Sensing

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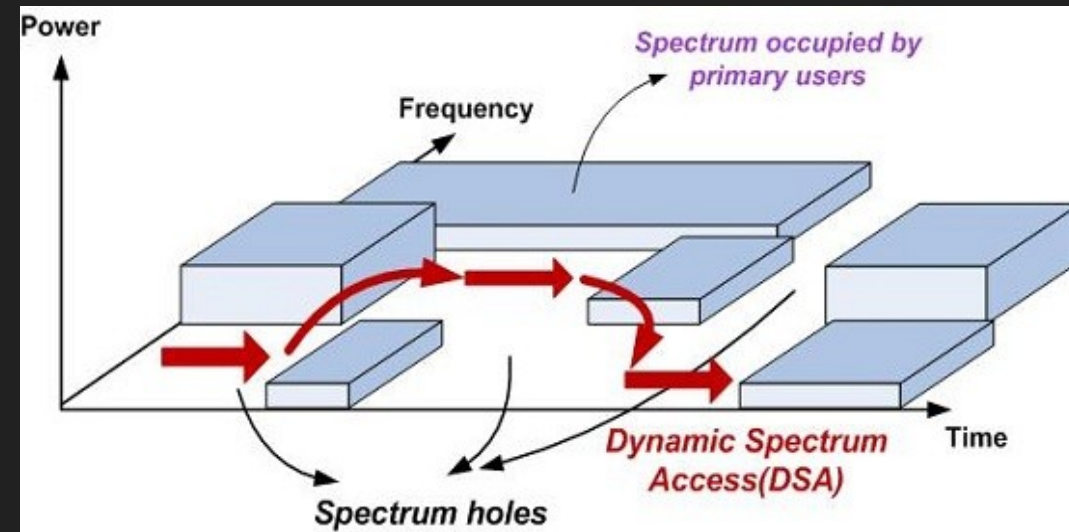
# SDR in ORBIT

○ **SDR (software-defined radio)** – radio communication system in which components that would usually be implemented using hardware are instead implemented using software



Photo: http://news.rutgers.edu/sites/medrel/files/plone-img/hires_image/national-science-fou-20100827--DSC_8890_300x200.jpg

# Spectrum Sensing Game

- Detecting a randomly generated signal from an unknown source
- "Whack-a-Mole"
- The goal: To scan the spectrum of available radio frequencies for bands that are currently in use, so that other applications can use open frequency bands and minimize interference

# Next Week

- Signal processing (DSP Tutorial)
- GNU Radio (perform signal processing)
- MATLAB (functions such as fft, "Finite Fourier Transform")