



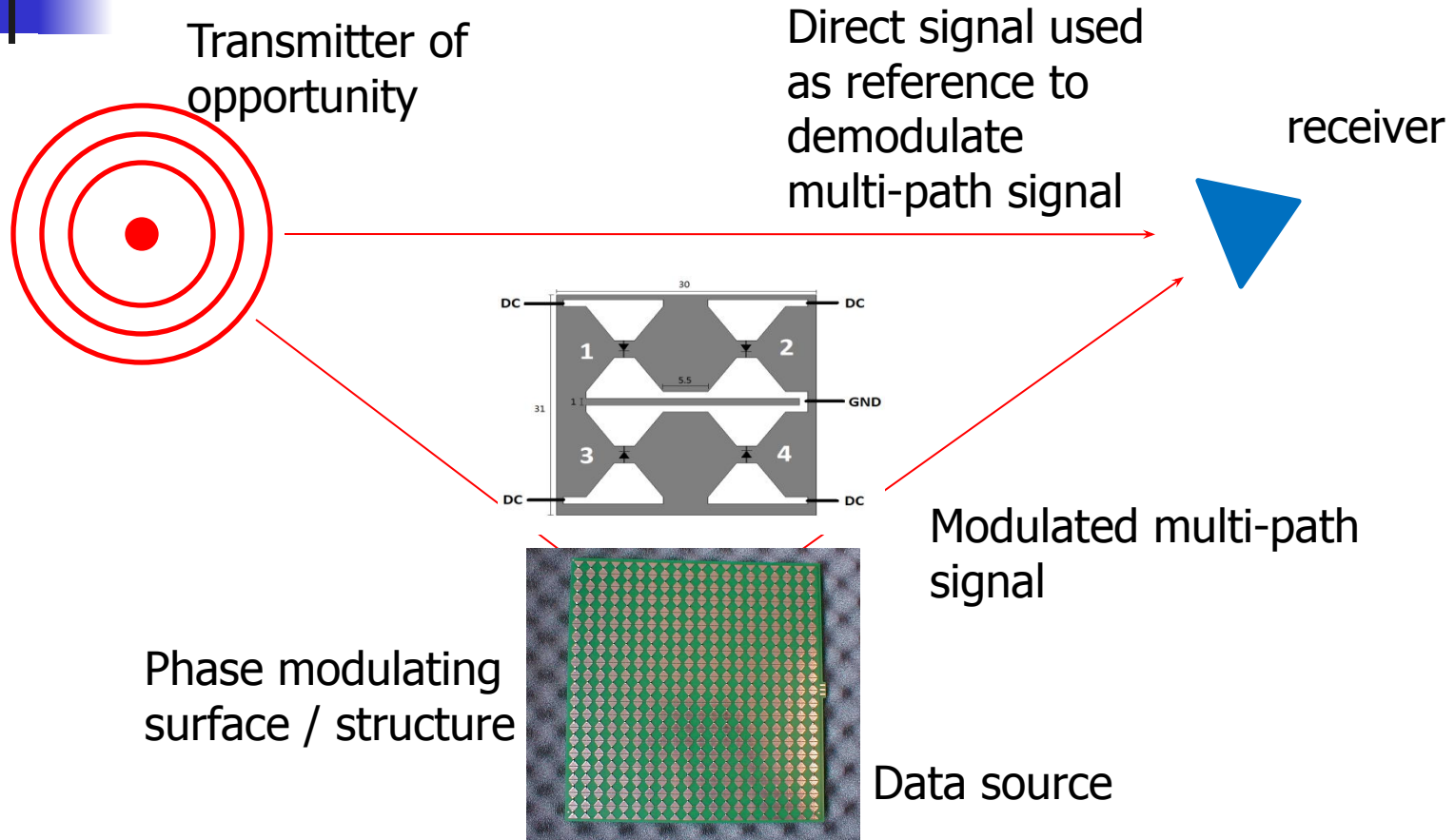
# Alan Tennant

## Department of Electronic and Electrical Engineering

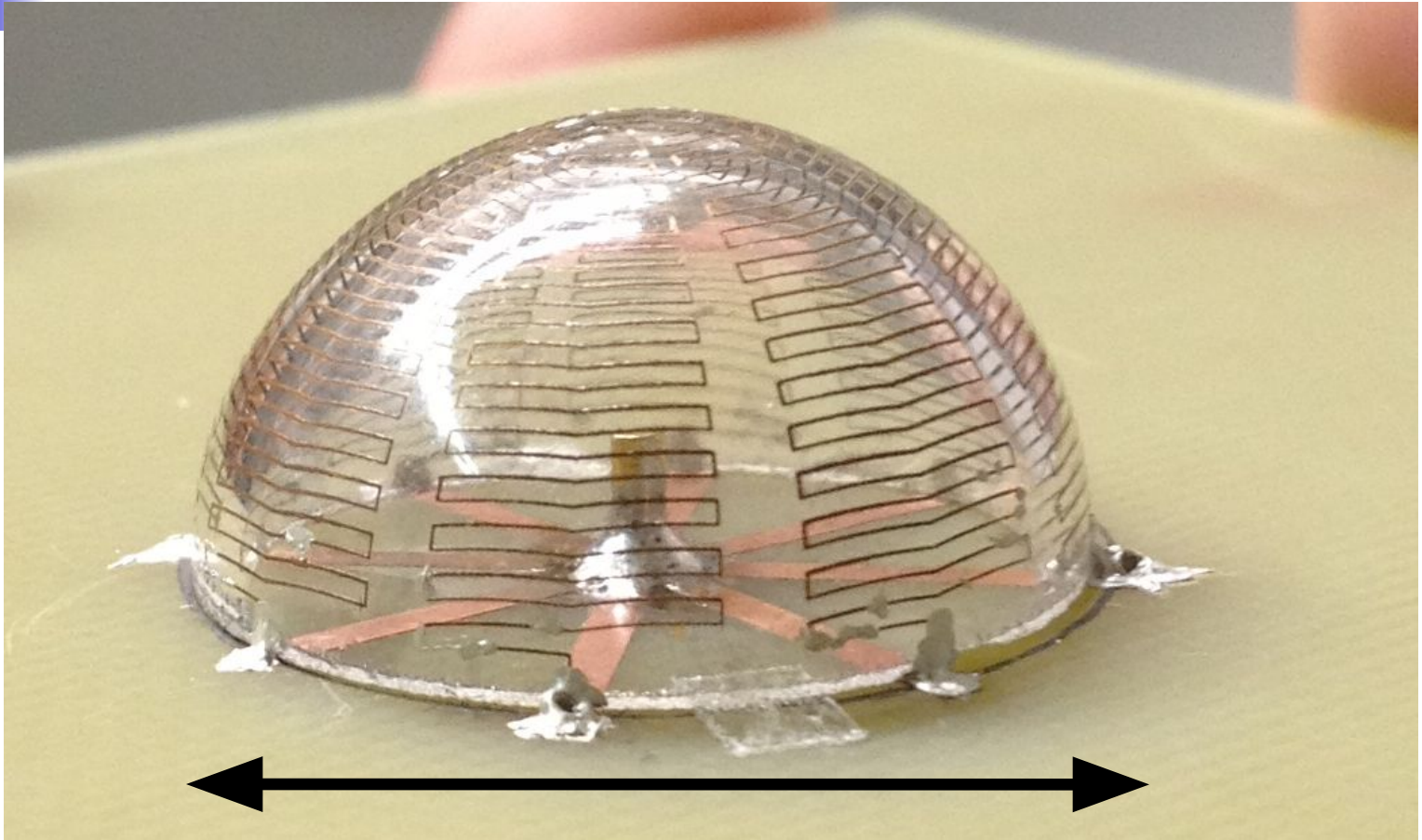
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- Radar signature management – passive and active stealth materials
- Time modulated and phased array antennas
- Modulated scatterers for covert communications including RFID tags
- 3-D electromagnetic structures
- Textile based systems
- Acoustic array systems

# Phase modulating structures for secure communications



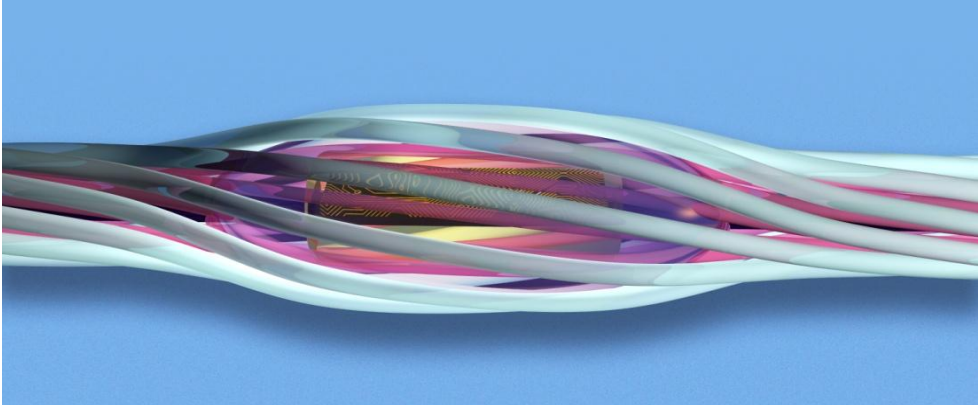
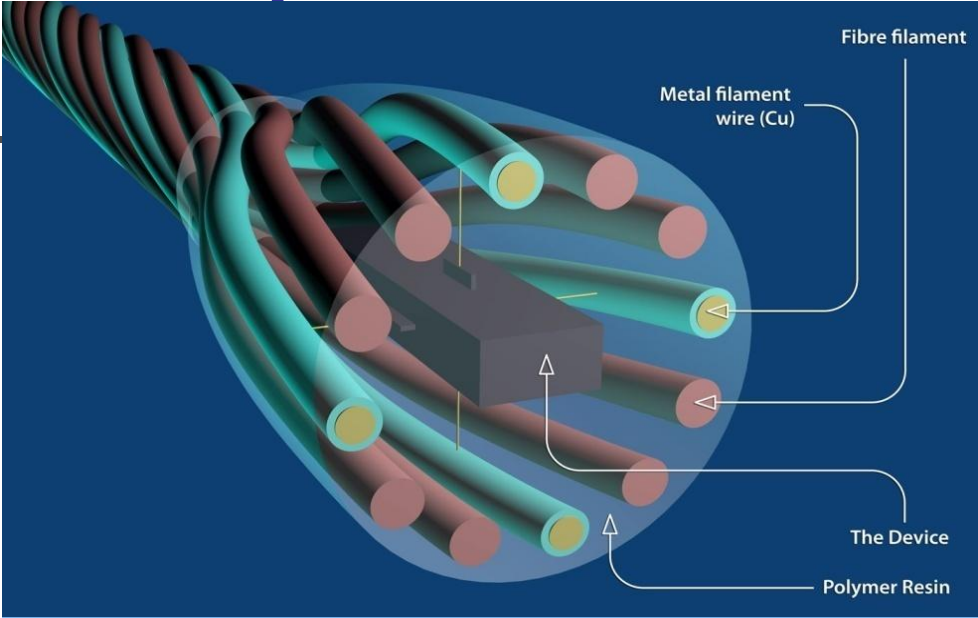
# 3-D Antennas



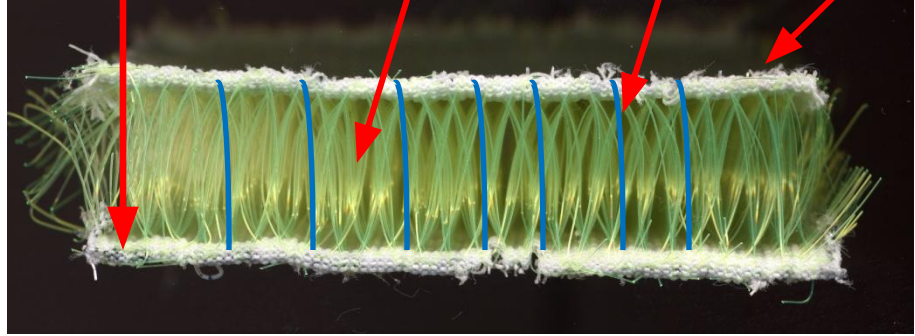
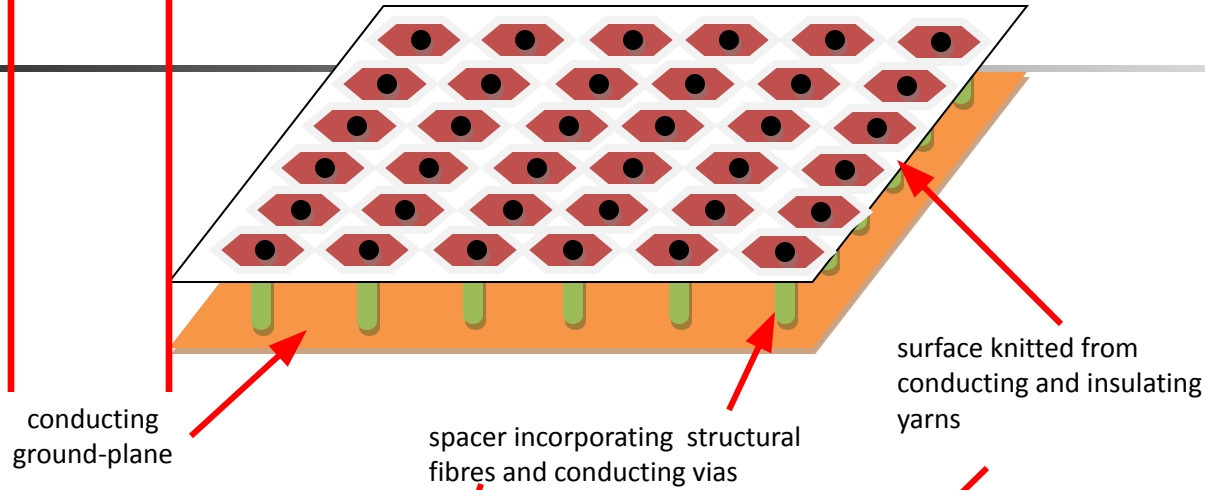
15mm

# Conducting textiles

## Embedding a semiconductor device into a multi-filament yarn



# Conducting textiles structural textiles



# Conducting textiles

## **structural textiles**

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