Internet of Many Things

Major Oil Company

Major Pipeline Company

John Jenkinson

First programming job 1962

DoE and DoD defense contractor

US Army

Degrees Physics, Mathematics, Computer Science

Individual Contributor Semiconductor manufacturer 1974-1983   Worked on PhD solid state physics

SOHIO, BP, Alyeska Pipeline Service Company

Mostek   first Ethernet adapter PDP Unibus
Mostek   better supervisory system than Intel   Bigger network than Digital Equipment Corp.

BP Sohio very large VAX clusters
BP Large multinational company   first connection to the Internet

Prudhoe Bay and Alaska North Slope oil & gas field instrumentation and control   SCADA
Trans Alaska Pipeline
Hostile environment
Pump Station and North Slope field billeting   Health stations
Internet on a stick
Microwave fibre   FDDI   AppleTalk DECnet Wireless

VoIP
Video Conferencing   ISDN dry pair

Firewalls facing wrong way
Rogue IP devices
Treadmills
Vending machines
Printers and FAX
Conference Room Calendars

European Gas Pumps
European e-mail
Trading room security

Earthquake Monitoring system

PLC firewalls
SCADA Unidirectional firewall

Forensic Assessment Computer Equipment and Test FACET
Supply Chain

Instrumentation of Network
User Surprise

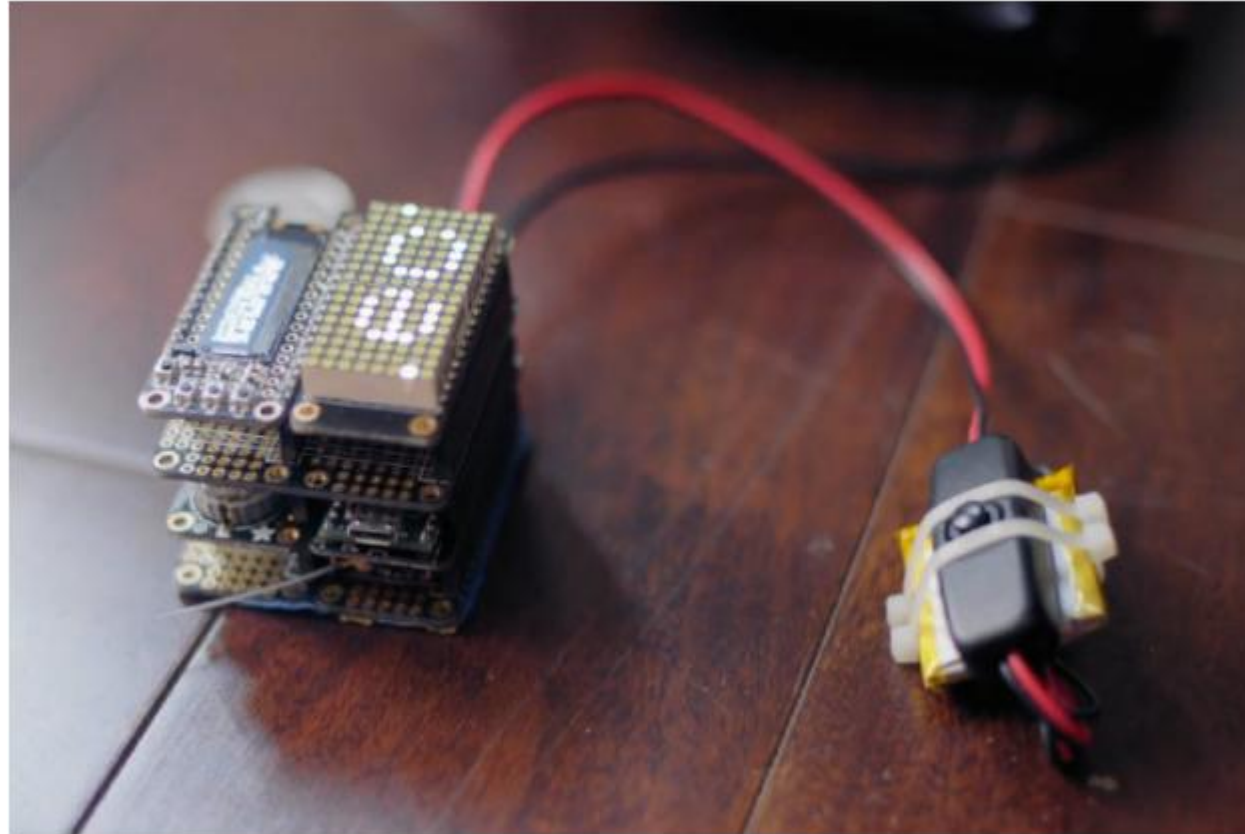Instrumentation of the pipe and field
Diesel fuel   smart vehicles
Spill
Field teardown
Wildlife
Right of way drones

NO NEED TO SHOOT DOWN DRONES! MANY OF THEM CAN NOW BE HIJACKED

A researcher devised an attack against a popular wireless control protocol called DSMx

The Icarus device can hijack drones that use the DSMx radio control protocol. Credit: Jonathan Andersson/Trend Micro

Researchers hack Philips Hue smart bulbs from the sky

Send in the drones.