

IPL

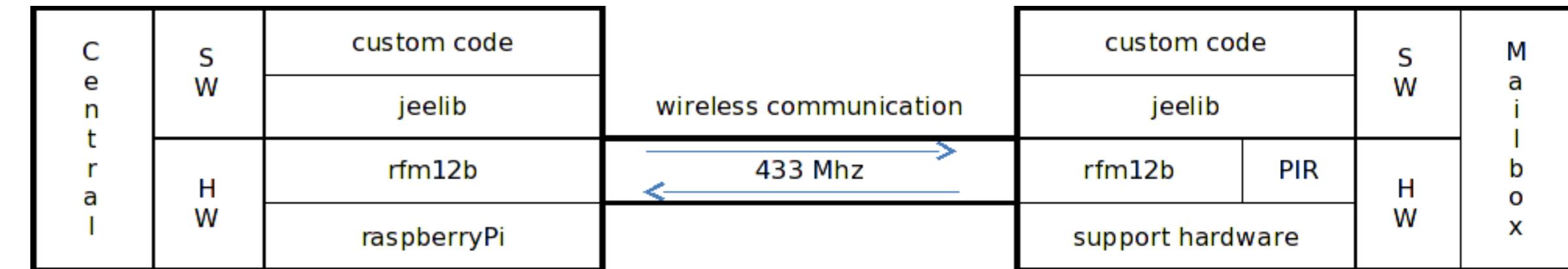
escola superior de tecnologia e gestão
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Smart Mail Box

Objectivos

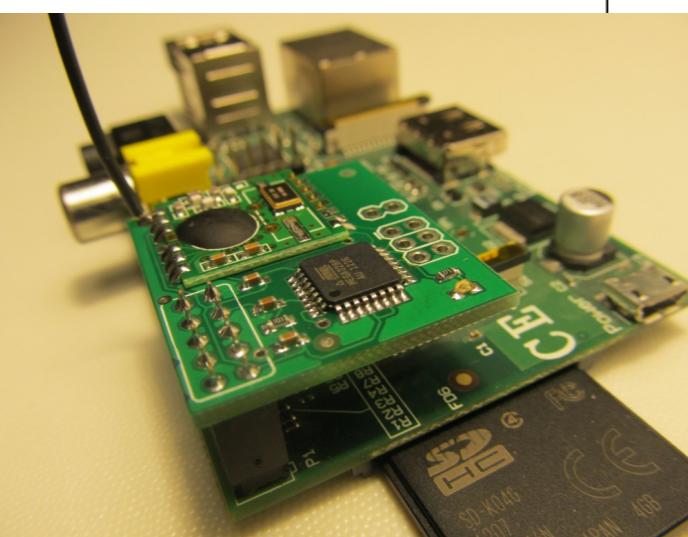
- Desenvolvimento de uma *smart mail box*
- Detecção da inserção de correspondência no objeto
- Transmissão das alterações de estado através de uma comunicação sem fios

Arquitetura da solução



Hardware

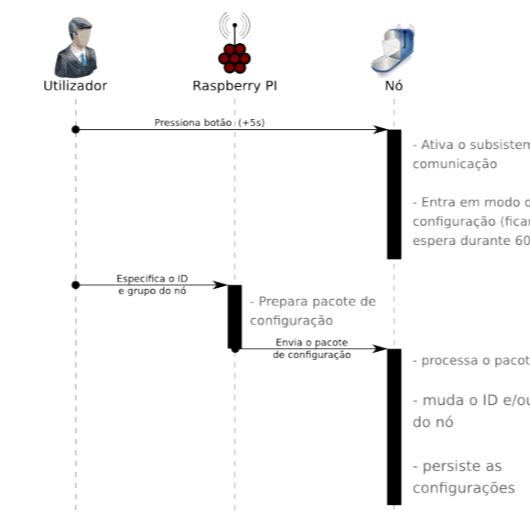
Caixa de correio	Central
<ul style="list-style-type: none"> • 1x HAHnode PCB • 1x AVR microcontroller • 1x AVR socket • 1x RFM12B (433/868 Mhz) • 1x resonator • 2x resistor • 1x voltage regulator • 1x electrolytic capacitor • 4x ceramic capacitors • 1x 1/4 wave antenna wire • 1x LDR • 1x white rubber grommet • 1x 2way JST PCB connector + matching cable • 2x 3way JST PCB connector + matching cable • 1x length of clear heatshrink • 1x Pir Sensor 	<ul style="list-style-type: none"> • 1x ATmega328 (running OpiBoot serial bootloader) • 2x 100nF • 1x 5mm LED • 2x 10K (brown, black, orange, gold) • 1x 100R (brown, black, brown, gold) • 1x RFM12B (433/868 Mhz) • 1x GPIO 6x2 pin header female socket • 1x ISP 3x2 pin header • 1x Rpi



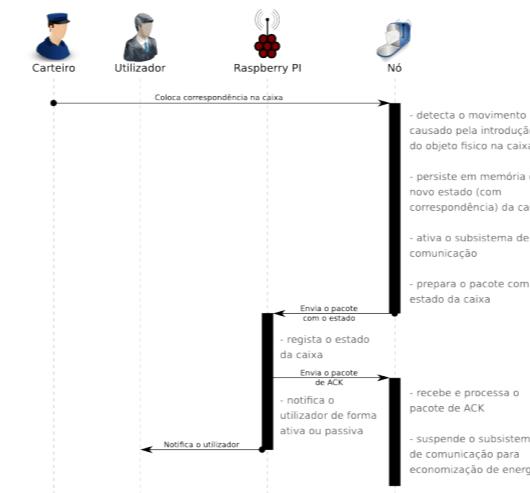
Docente: Nuno Costa

Algoritmos

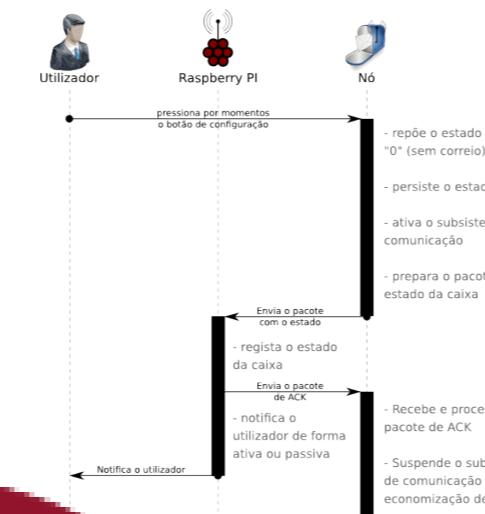
Configuração



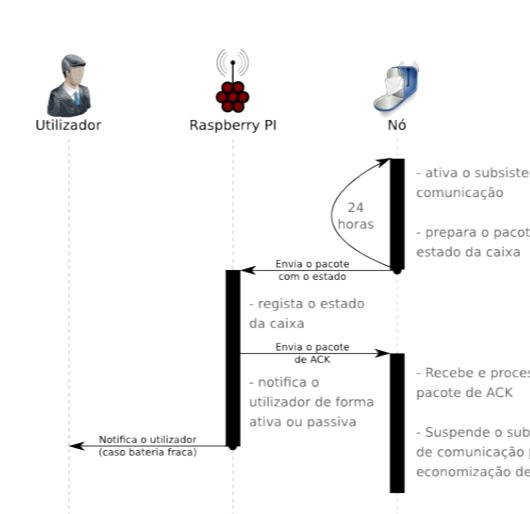
Notificação correio



Reposição de estado



Notificação periódica



Protótipo

