Prototyping Functions

– Step-by-step Functionality (Demos)
  • GP Output (GPIO – General Purpose I/O)->Square Wave->Clock

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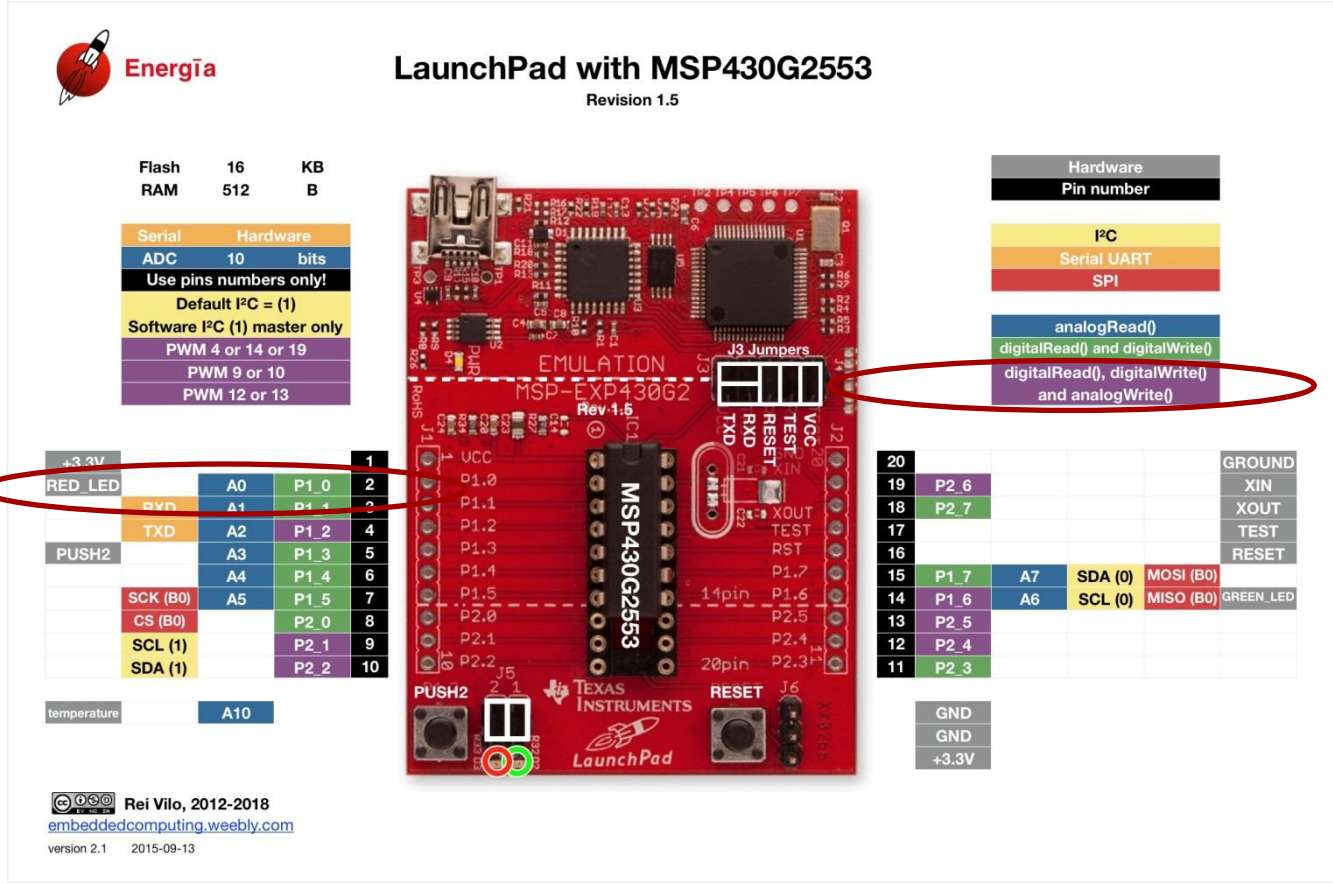
Prototyping Functions

- Step-by-step Functionality (Demos)
  - GP Output (GPIO – General Purpose I/O)->Square Wave->Clock
  - Read A/D
  - I2C/SMBus (Wire)
- Optional WiFi
  - STA (station)
  - AP (access point)
- Optional Energia
- UI
  - Button (GP Input - GPIO, add debounce)
  - LCD Display (“Hello”)
  - Music
- UI - Serial Interface (i.e. Putty for echo “Hello World”)

Example Pin Map – Digital I/O

- How can you not love an MCU in a DIP package for rapid prototyping?

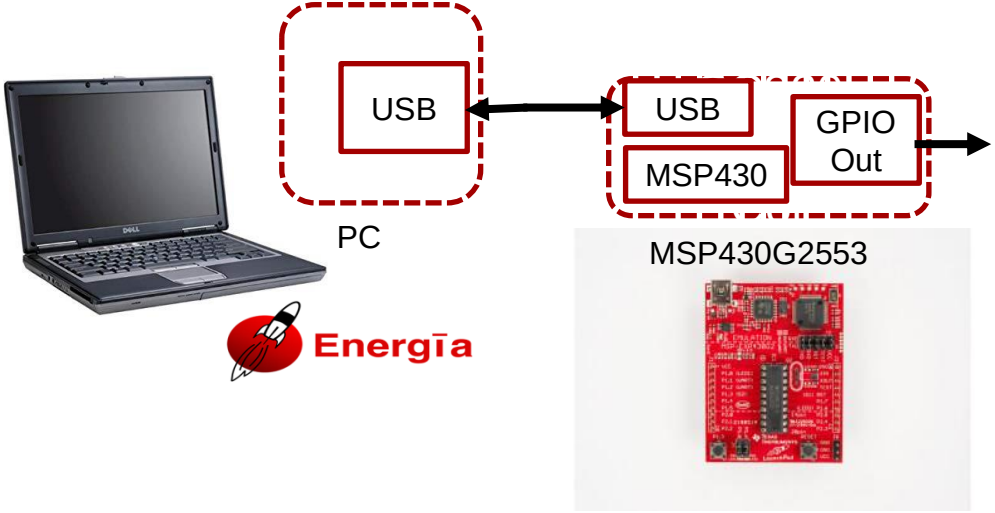


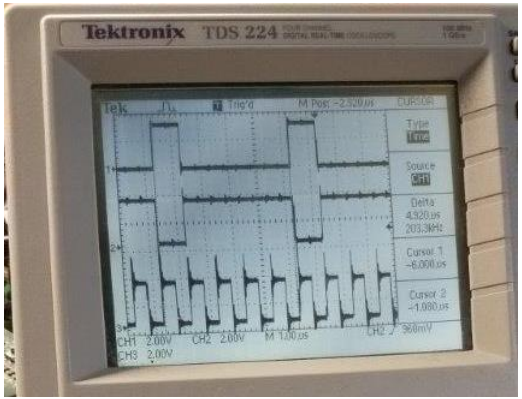
- http://www.energia.nu/pinmaps/msp-exp430g2/

Demo - GPIO

– Step-by-step Functionality (Demo) - PFC (Power Factor Correction) Controller

- GP Output (“Blinky” is just General Purpose Input) – Energia Blink (square wave)
  - P1.0 ->RED_LED
    - »static const uint8_t P1_0 = 2;
    - »static const uint8_t RED_LED = 2;
  - const int ledPin = RED_LED; // the number of the LED pin





Square Waves with Reference Clock