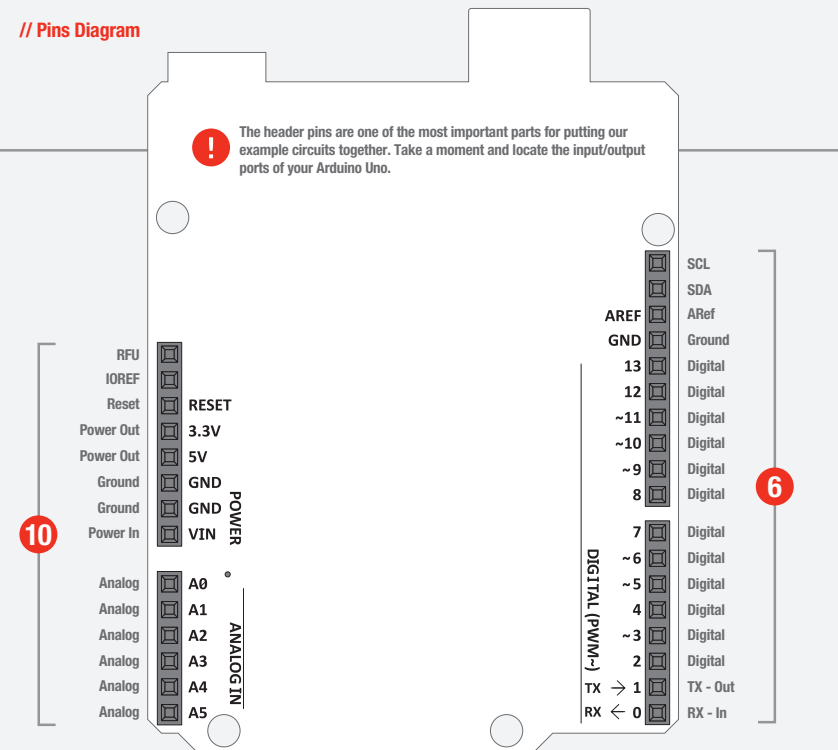# Arduino Uno

1 **Power In** (Barrel Jack) - Can be used with either a 9V or 12V wall-wart or battery.

2 **Power In** (USB Port) - Provides power and communicates with your board when plugged into your computer via USB.

3 **LED** (RX: Receiving) - This shows when the Arduino is receiving data (such as when being programmed).

4 **LED** (TX: Transmitting) - This shows when your Arduino is transmitting data (such as when running a program).

5 **LED** (Pin 13: Troubleshooting) - This LED is incorporated into your sketch to show if your program is running properly.

6 **Pins** (ARef, Ground, Digital, Rx, Tx) - These various pins can be used for inputs, outputs, power, and ground. // See Diagram Below

7 **LED** (Indicates Arduino is ON) - This is a simple power indicator LED.

8 **Reset Button** - This is a way to manually reset your Arduino, which makes your code restart.

9 **ICSP Pins** (Uploading Code without Bootloader) - This is for "In-Circuit Serial Programming," used if you want to bypass the boot loader.

10 **Pins** (Analog In, Power In, Ground, Power Out, Reset) - These various pins can be used for inputs, outputs, power, and ground. // See Diagram Below

// Pins Diagram

! The header pins are one of the most important parts for putting our example circuits together. Take a moment and locate the input/output ports of your Arduino Uno.

~ = PWM/Analog out compatible (i.e. ~ **3**)