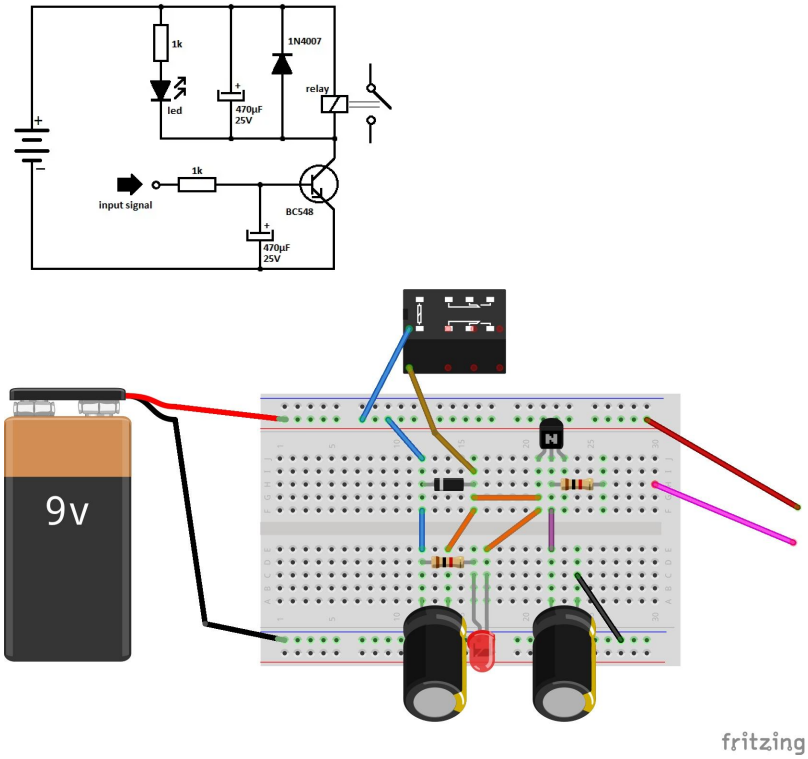
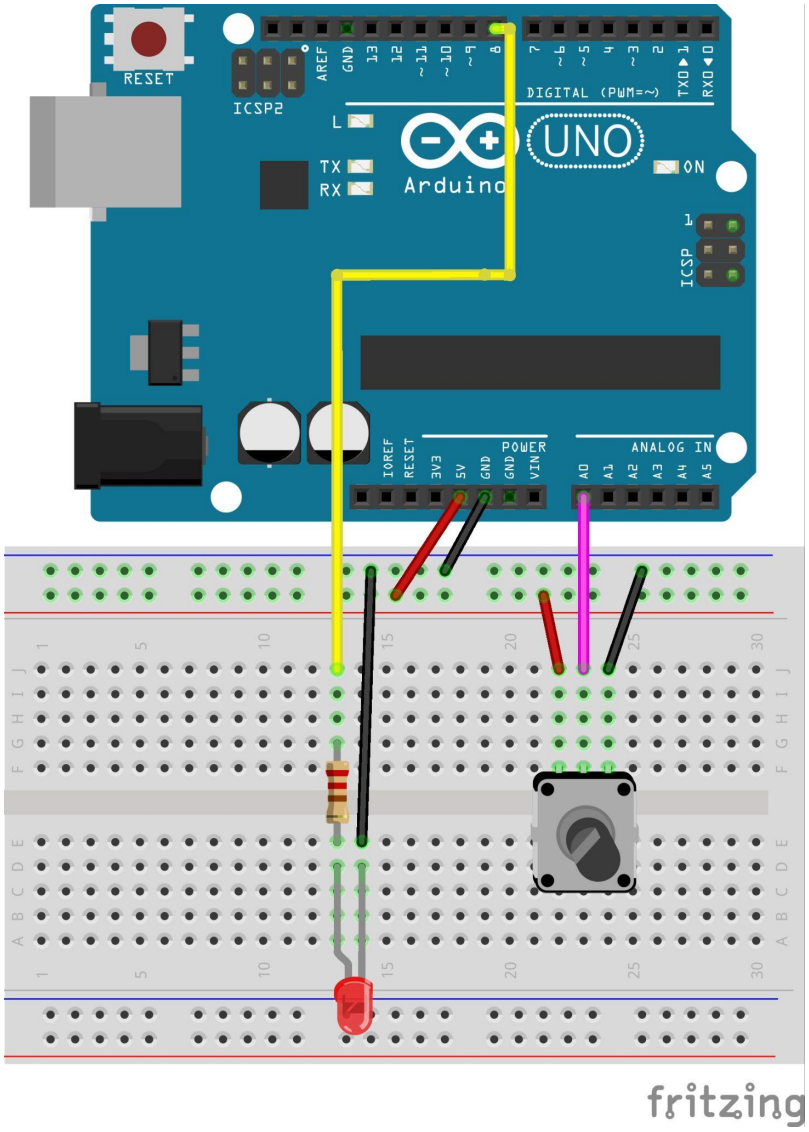
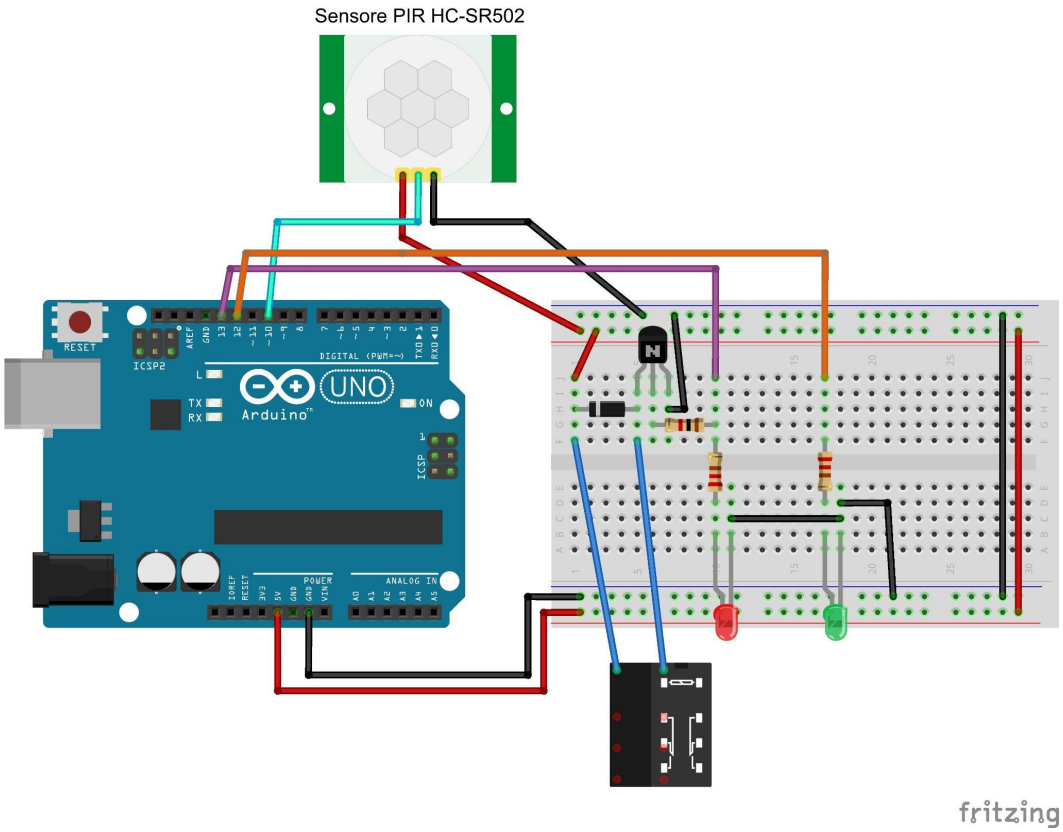
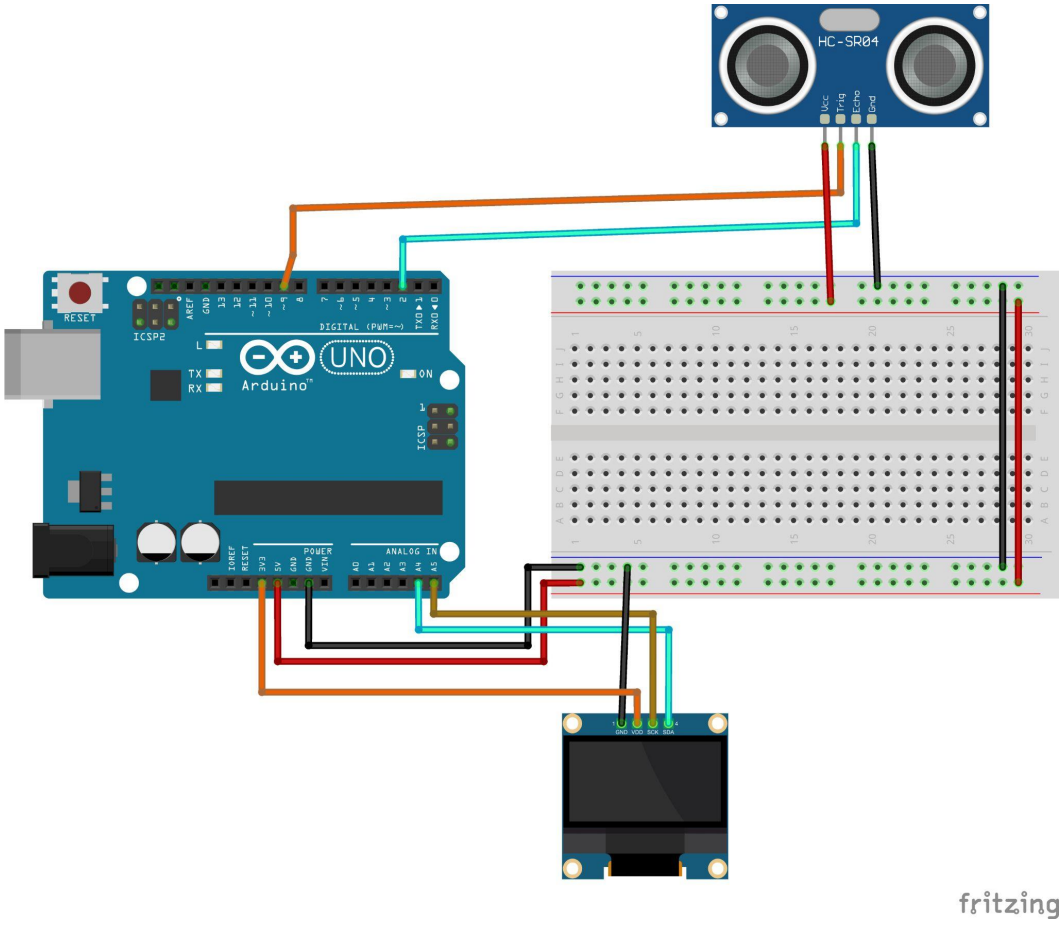
fritzing electronics made easy	**For Ages 11 to 17:**	
	**Day 1: Dive into Components**	- **Activities:** A deeper look into LEDs, resistors, capacitors, diodes, transistors, and relays. - **Mini Project:** "LED Color Mixer" - Use different colored LEDs and transistors to create color mix effects. - **Goal:** Understand multiple components and their interactions.

	**Day 2: Arduino Mastery Begins**	- **Activities:** Advanced capabilities of Arduino. - **Mini Project:** "Interactive Light Dimmer" - A potentiometer-controlled light dimmer using Arduino. - **Goal:** Use Arduino for a real-world application. Note: DO: 8 (PWM) AI: 0 (Analog Input)

	**Day 3: Sensing & Responding**	- **Activities:** Diving into IR motion detector. - **Mini Project:** “Intruder Alert” - An IR-based system that lights up an LED when someone passes by. - **Goal:** Create an interactive system using sensors. Note: DI: 10 DO: 12,13



Day 4: See What You Sense

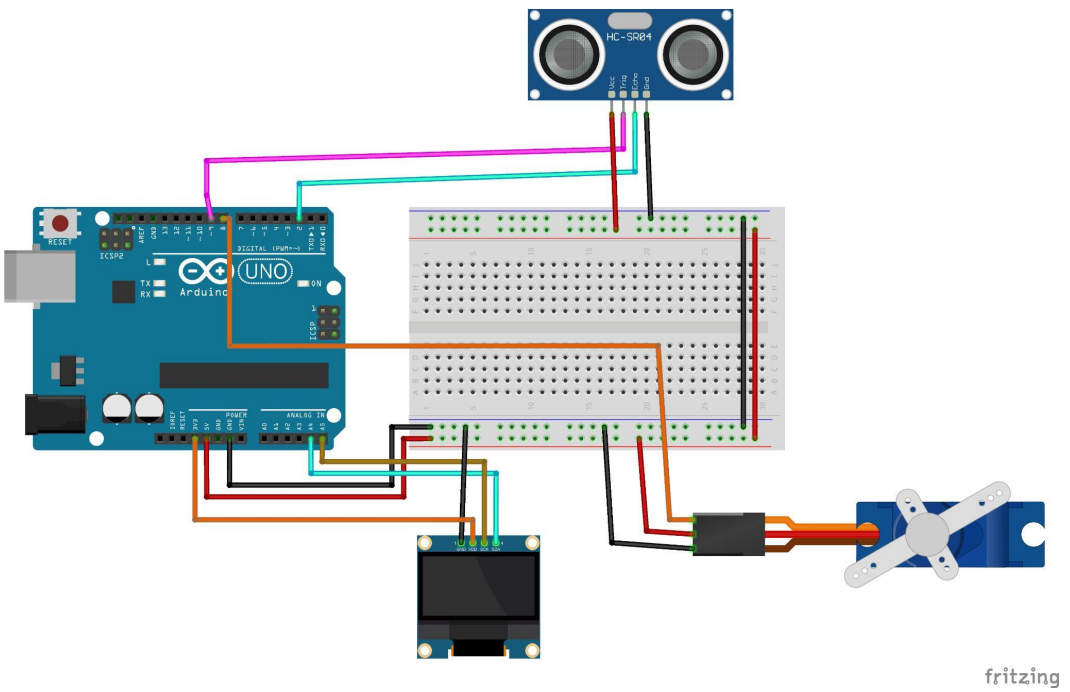
- **Activities:** Learning the LCD's workings.
- **Mini Project:** "Distance Alert Display" - Use the sonar sensor to display distance from an object on the LCD.
- **Goal:** Integrate sensing and display.

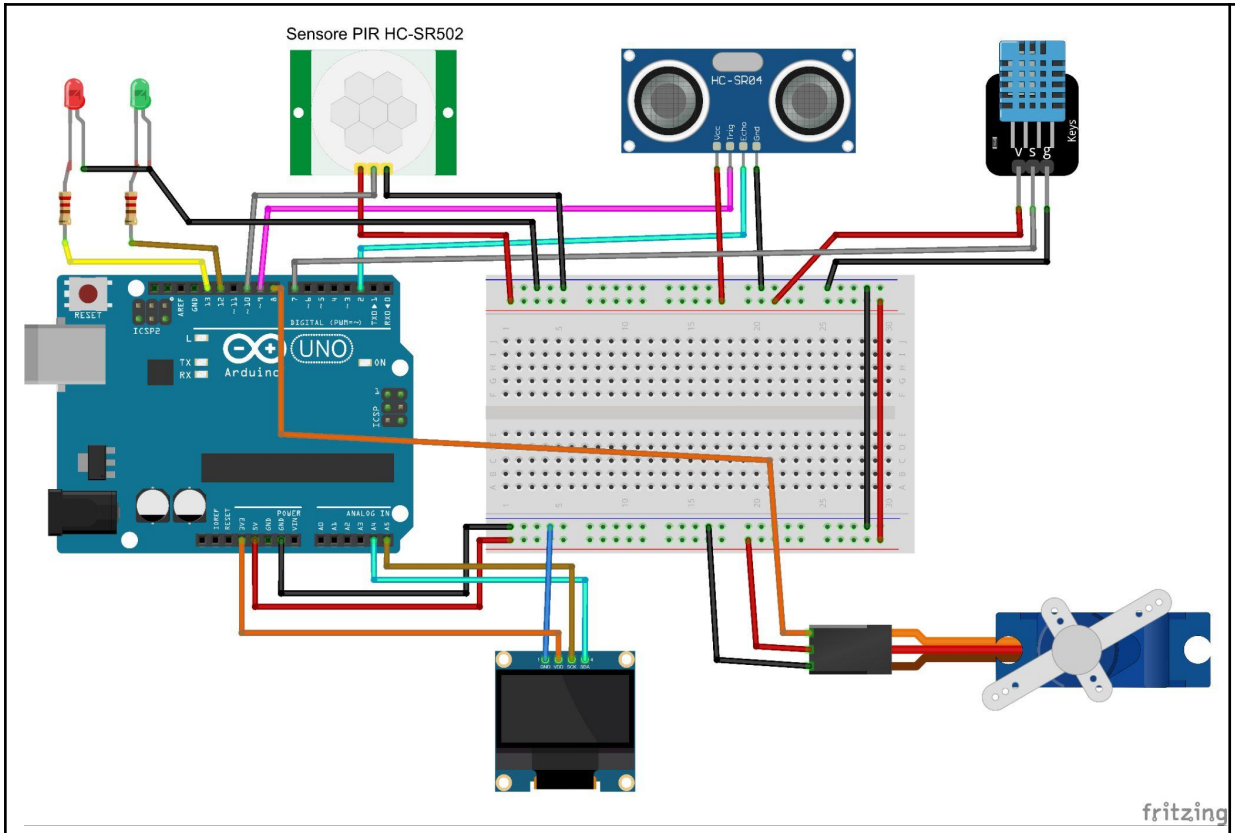
Note:

DI: 9 (Interrupt)

DO: 2

I2C: `A4(SDA), A5(SCL)`

	**Day 5: The Art of Motion**	- **Activities:** Diving deeper into servo mechanisms. - **Mini Project:** “Echo Location Head” - Attach sonar to servo, making it turn towards the closest object detected. - **Goal:** Achieve advanced interactivity with motion and sensing. Note: DI: 9 (Interrupt) DO: 2, 8 (PWM) I2C: `A4(SDA), A5(SCL)`

	**Day 6: Building Towards the Interactive Plant Buddy**	- **Activities:** Start integrating learned components. - **Mini Project:** "Plant's Health Monitor" - Combining DHT11, LCD, and servo to create a system that shows plant's environment status and waves a flag if conditions aren't ideal. - **Goal:** Lay the groundwork for the final project. Note: DI: 7,9 (Interrupt), 10 DO: 2, 8 (PWM), 12,13 I2C: `A4(SDA), A5(SCL)`