ASSIGNMENT

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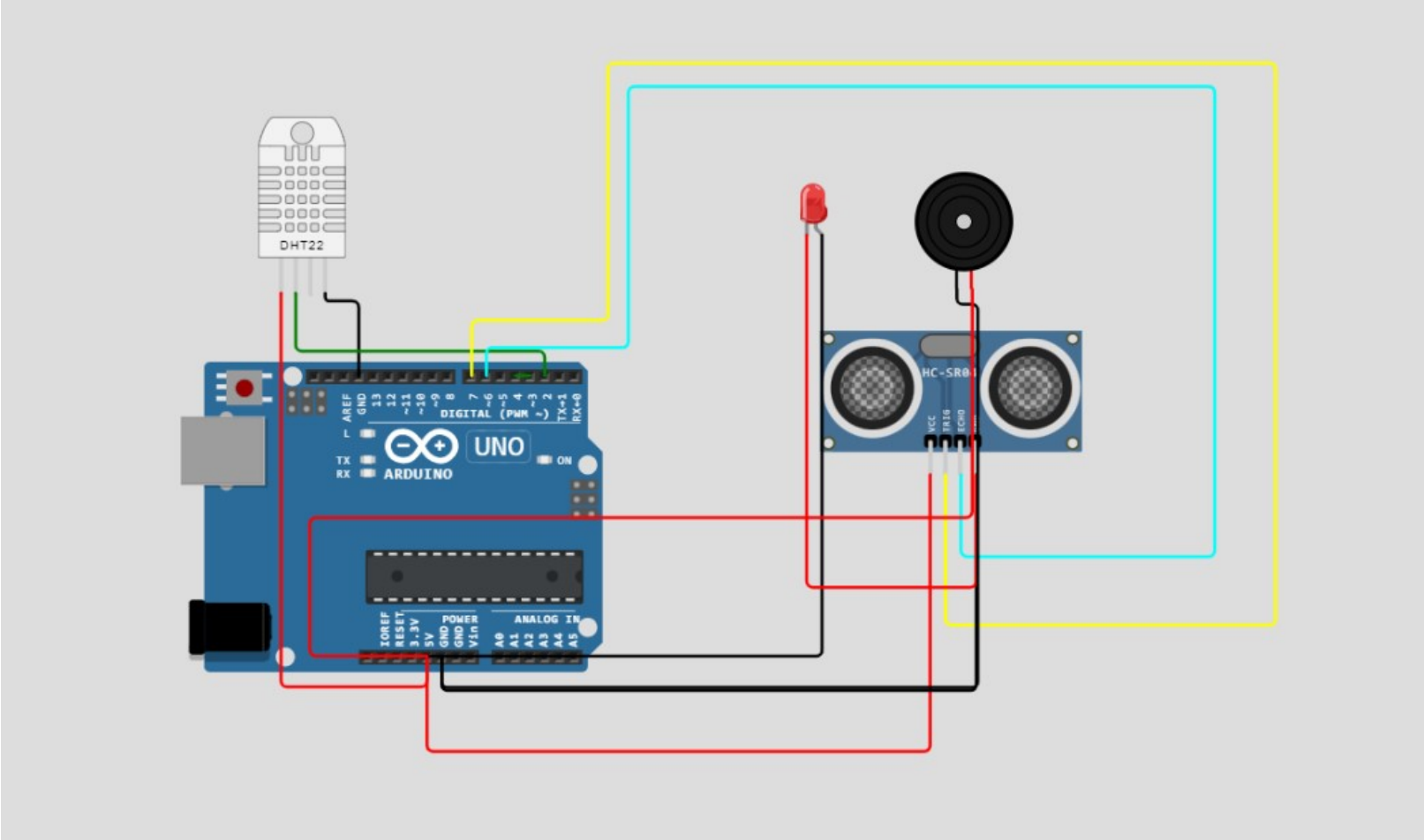
REGISTER:E2214038

Circuit diaram



coding

```
#include "DHT.h"

#define DHTPIN 2
#define DHTTYPE DHT22   // DHT 22  (AM2302), AM2321

DHT dht(DHTPIN, DHTTYPE);
#define PIN_TRIG 7
#define PIN_ECHO 6

void setup() {
{
  Serial.begin(115200);
  Serial.println(F("DHT22 example!"));

  dht.begin();
}

  Serial.begin(115200);
  pinMode(PIN_TRIG, OUTPUT);
  pinMode(PIN_ECHO, INPUT);
}

void loop() {{
  float temperature = dht.readTemperature();
  float humidity = dht.readHumidity();

  // Check if any reads failed and exit early (to try again).
  if (isnan(temperature) || isnan(humidity)) {
    Serial.println(F("Failed to read from DHT sensor!"));
    return;
  }

  Serial.print(F("Humidity: "));
  Serial.print(humidity);
  Serial.print(F("%  Temperature: "));
```

```
35      Serial.print(F("%  Temperature: "));
36      Serial.print(temperature);
37      Serial.println(F("°C "));
38
39      // Wait a few seconds between measurements.
40      delay(2000);
41    }
42
43      // Start a new measurement:
44      digitalWrite(PIN_TRIG, HIGH);
45      delayMicroseconds(10);
46      digitalWrite(PIN_TRIG, LOW);
47
48      // Read the result:
49      int duration = pulseIn(PIN_ECHO, HIGH);
50      Serial.print("Distance in CM: ");
51      Serial.println(duration / 58);
52      Serial.print("Distance in inches: ");
53      Serial.println(duration / 148);
54
55      delay(1000);
56    }
```

Out put and result

```
Humidity: 40.00%  Temperature: 24.00°C
Distance in CM: 403
Distance in inches: 158
Humidity: 40.00%  Temperature: 24.00°C
Distance in CM: 403
Distance in inches: 158
Humidity: 40.00%  Temperature: 24.00°C
```