:Blink Blink:

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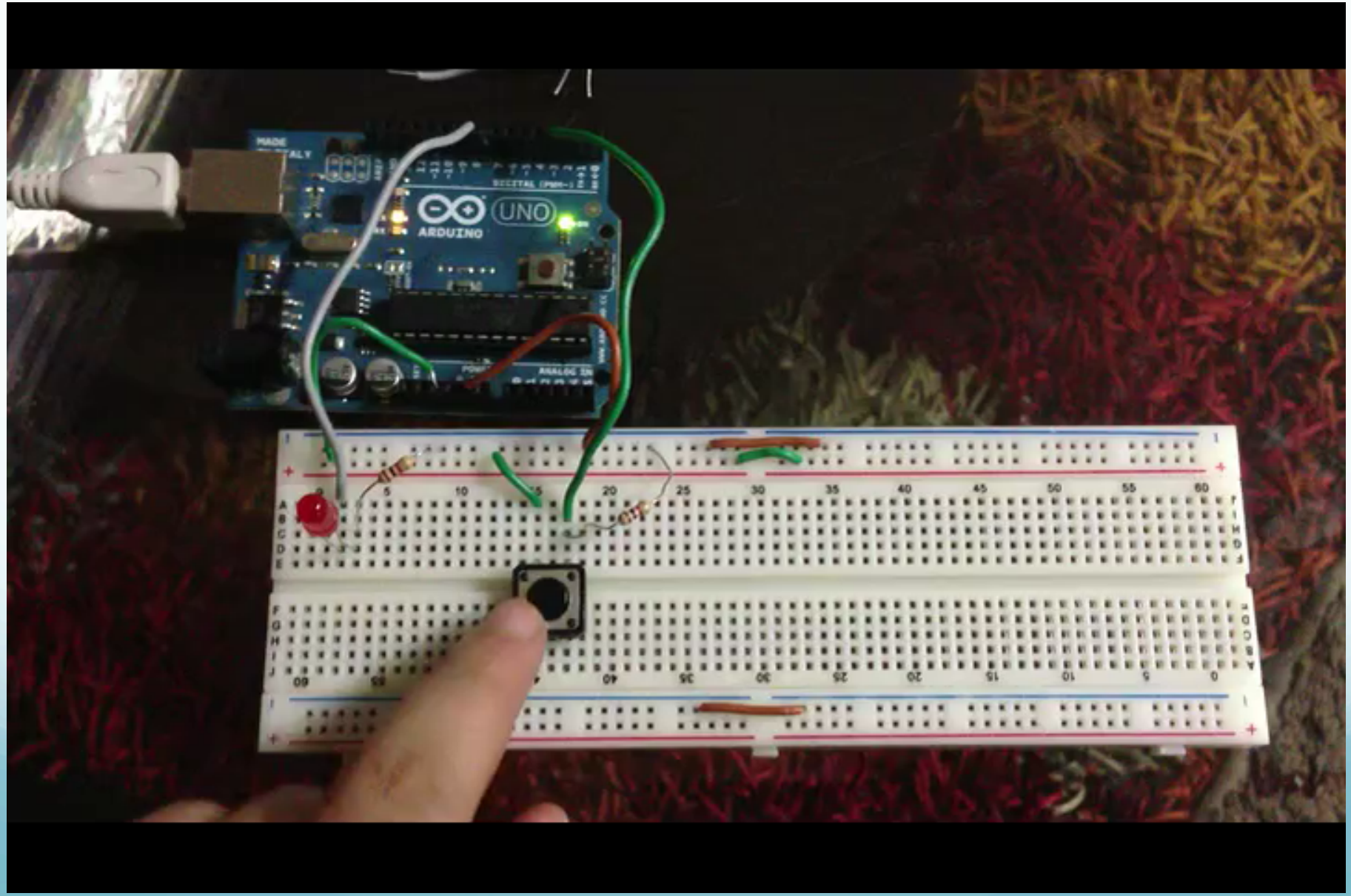
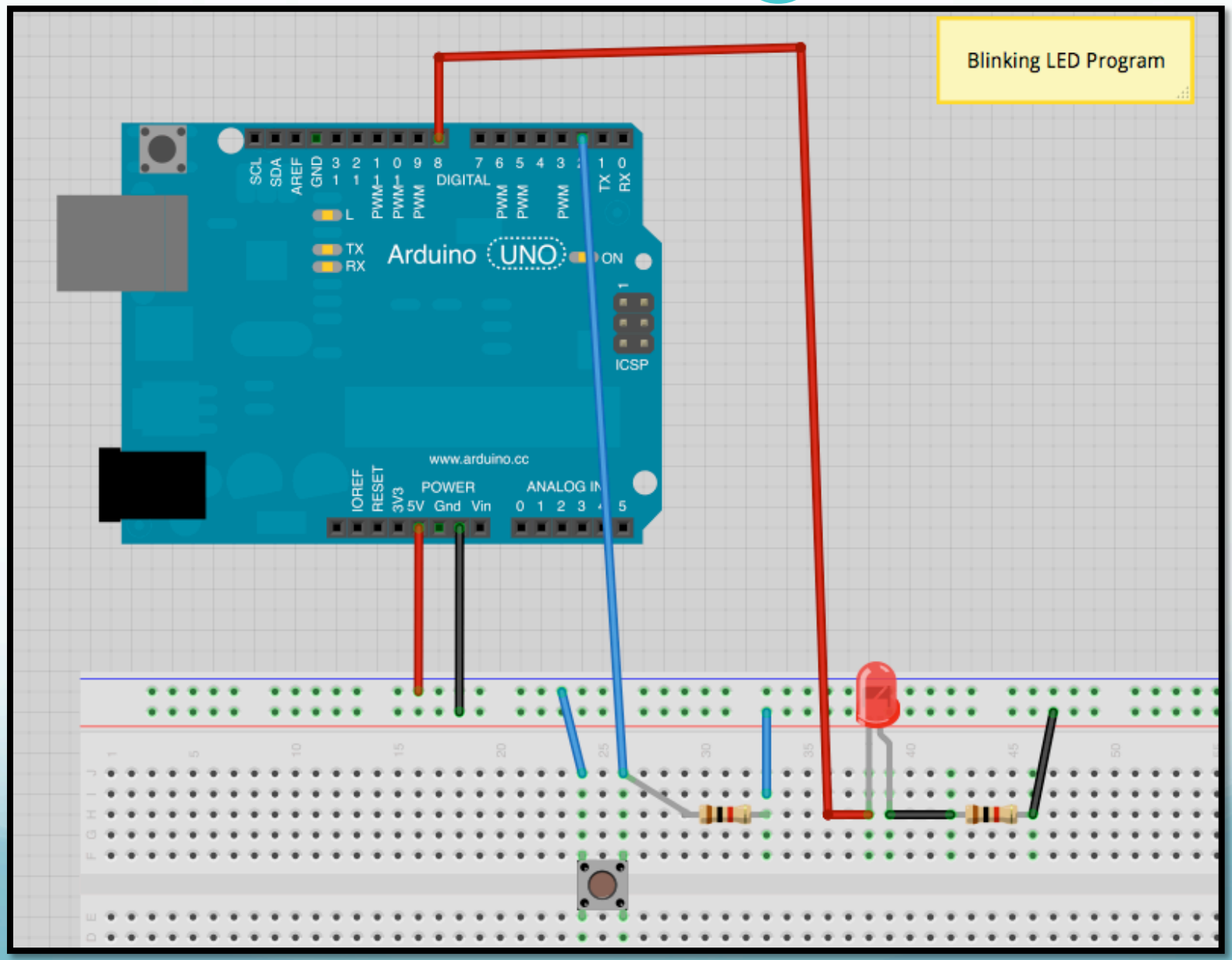
It's VIDEO time!



Circuit Diagram



//Code

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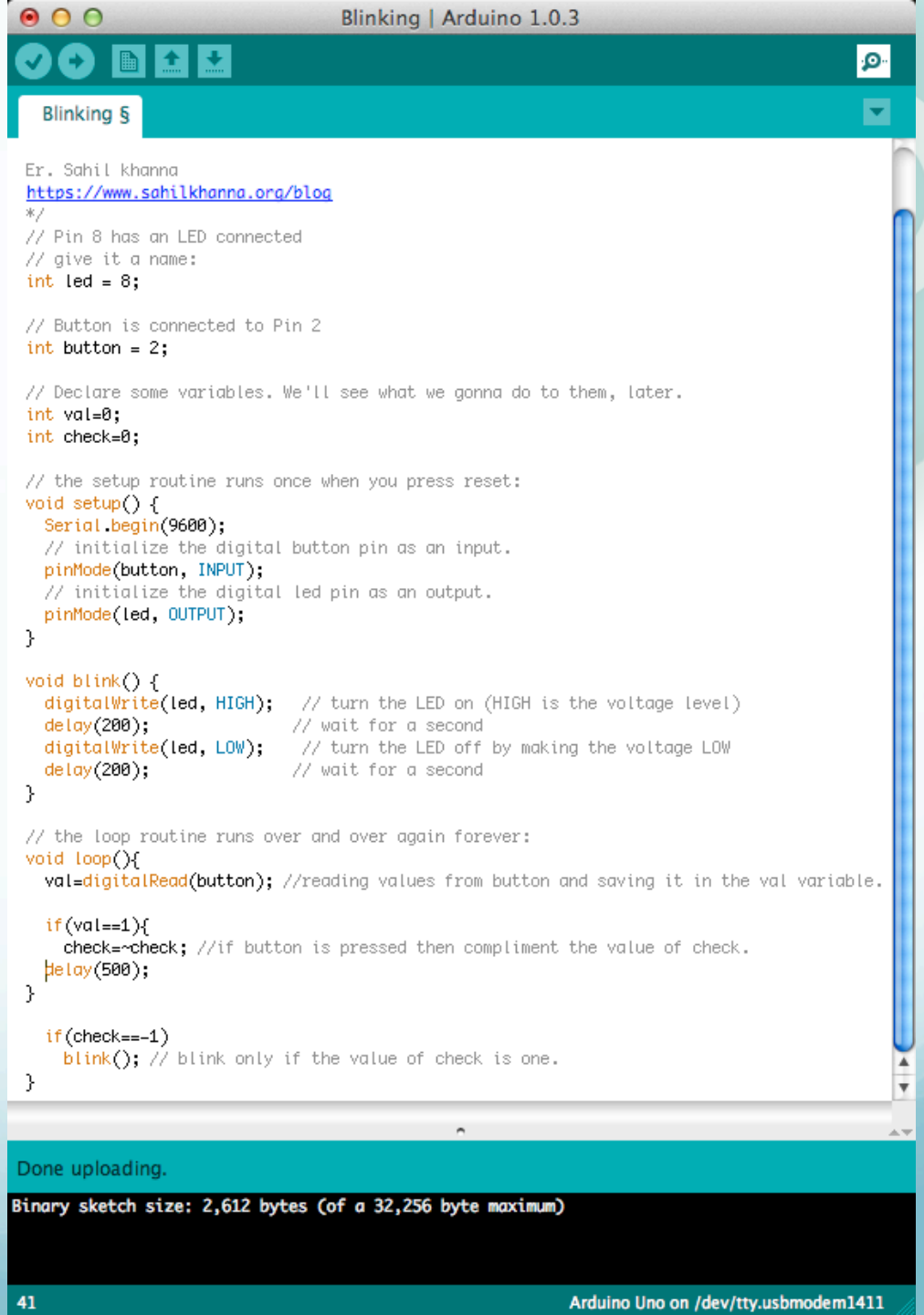
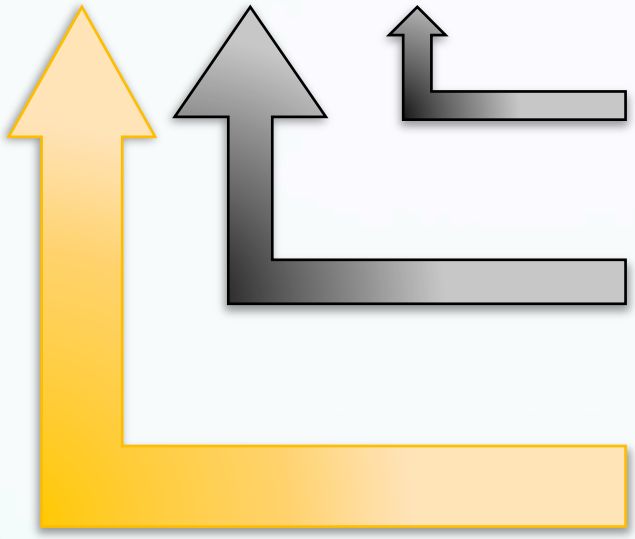


Code Explantation

```
int led = 8;
```



Pin number of Arduino attached to led.

Assigning a variable for pin 8

Nature of variable i.e. integer

```
// Button is connected to Pin 2
int button = 2;
// Declare some variables. We'll see what we gonna do to them, later.
int val=0;
int check=0;
```

Code Explantation

```
// the setup routine runs once when you press reset:
void setup() {
  // initialize the digital button pin as an input.
  pinMode(button, INPUT);
```

Setting what the pin(in this case the button) will act as i.e. OUTPUT or INPUT.

As we will be reading the signal from the button, so we will assign it as an INPUT.

```
// initialize the digital led pin as an
output.
  pinMode(led, OUTPUT);
}
```

As we will be turning on the LED, so we will assign it as an OUTPUT.

Code Explantation

```
// the loop routine runs over and over again forever:
void loop(){
  val=digitalRead(button); //reading values from button
and saving it in the val variable.
```

This function helps us to read digital values from our “button” pin and then save it in “val” integer.

```
  if(val==1){
    check=~check; //if button is pressed then
                  compliment the value of check.
 delay(500); //wait for 0.5 seconds
    }

  if(check==1)
    blink(); // blink only if the value of check is one.
}
```

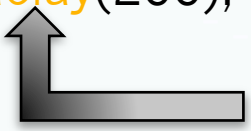
Here we have used a custom made function to define the blinking process. Lets see how it works.

Code Explantation

```
 void blink() {
  digitalWrite(led, HIGH);   // turn the LED on (HIGH is
the voltage level)
```

This function tells to make the given pin(in this case our LED) as either HIGH(1 or 5V) or LOW(0 or 0V).

```
  delay(200);              // wait for a second
```



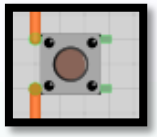
This function gives us a delay in milli seconds i.e. if we have given 1000 then the delay is 1 sec and if 200 then 0.2 seconds and so on.

```
 digitalWrite(led, LOW);    // turn the LED off  by making
the voltage LOW

  delay(200);              // wait for a second
}
```

What's Happening?

Arduino is constantly checking the signal from the button(which is fed into **val**).

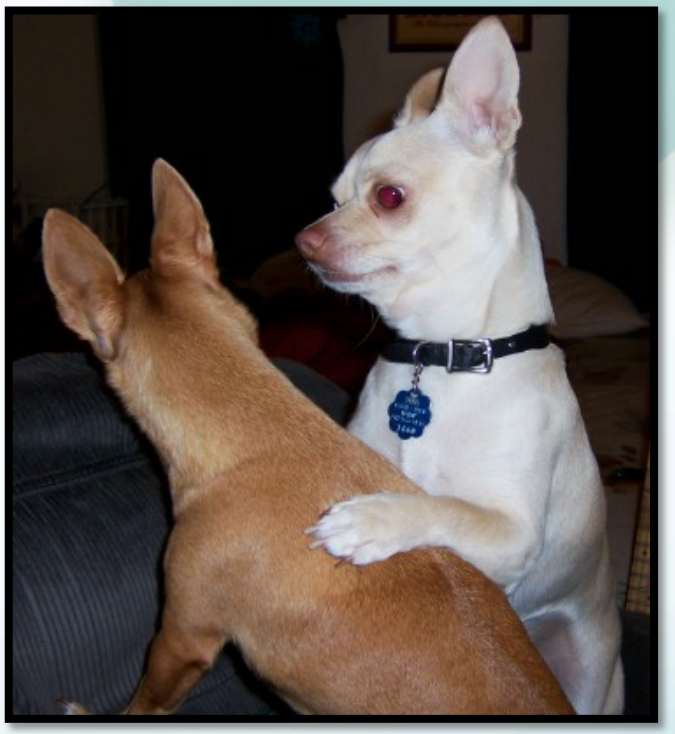


Whenever the button(val = 1) is pressed it compliments the value of check variable.

When the value of check becomes 1, our arduino starts the blinking process.

Congratulations,
You have just made your first Arduino code.

Give yourself a pat on the back. You did great!



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Aloha…