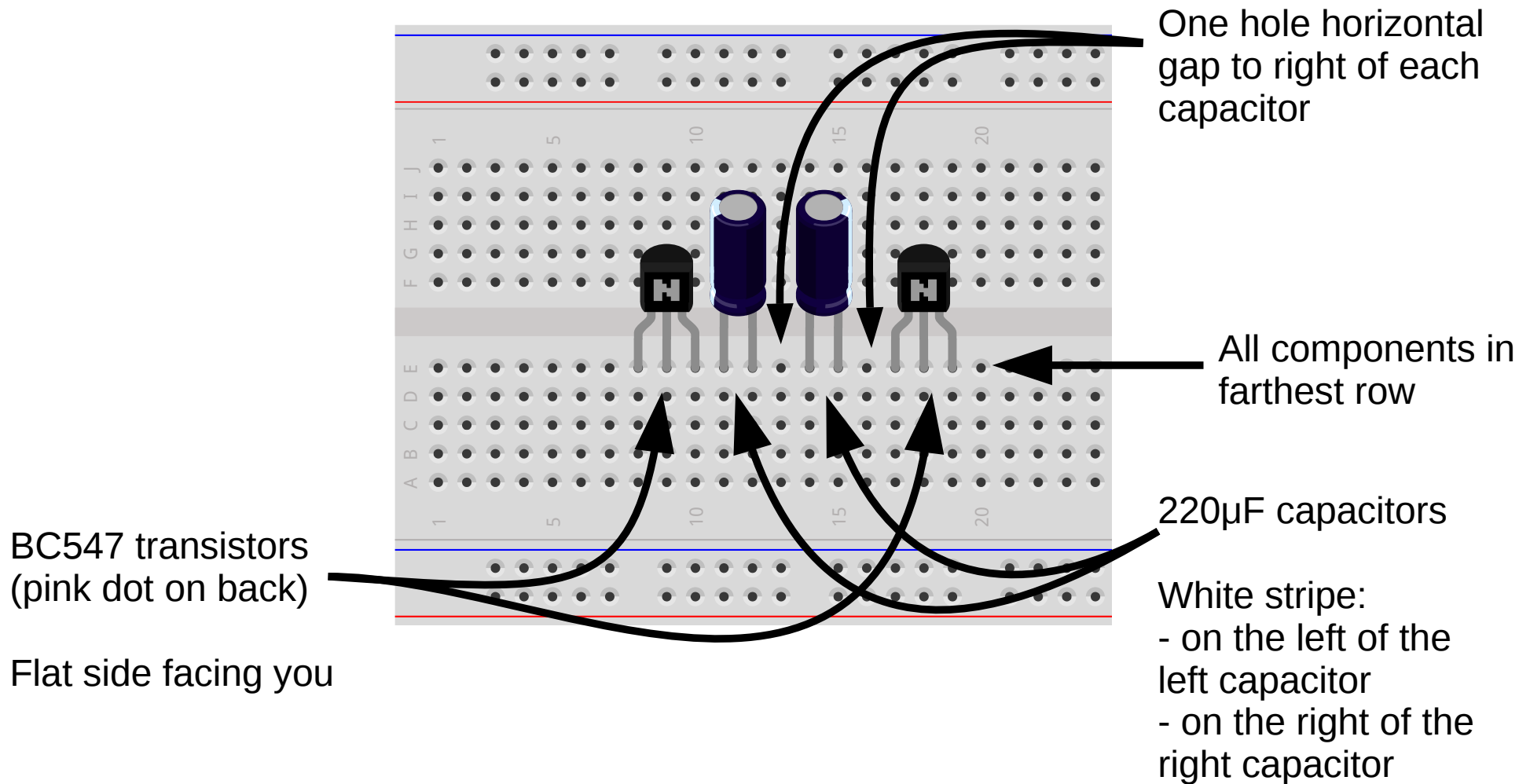
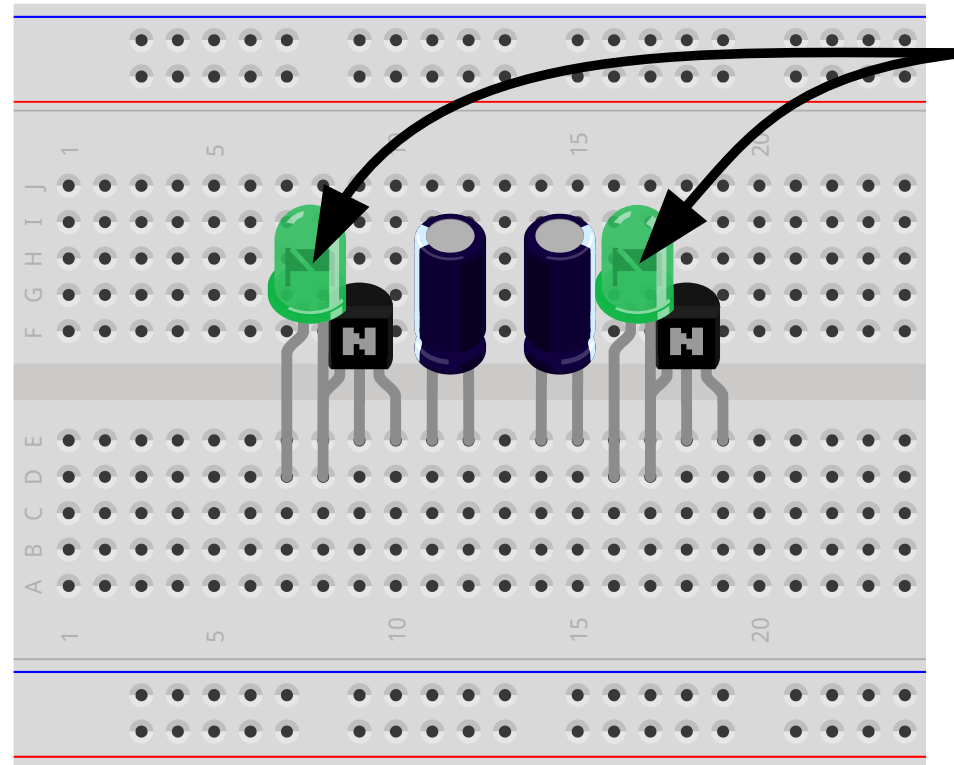


LED Flasher – Step 1



LED Flasher – Step 2



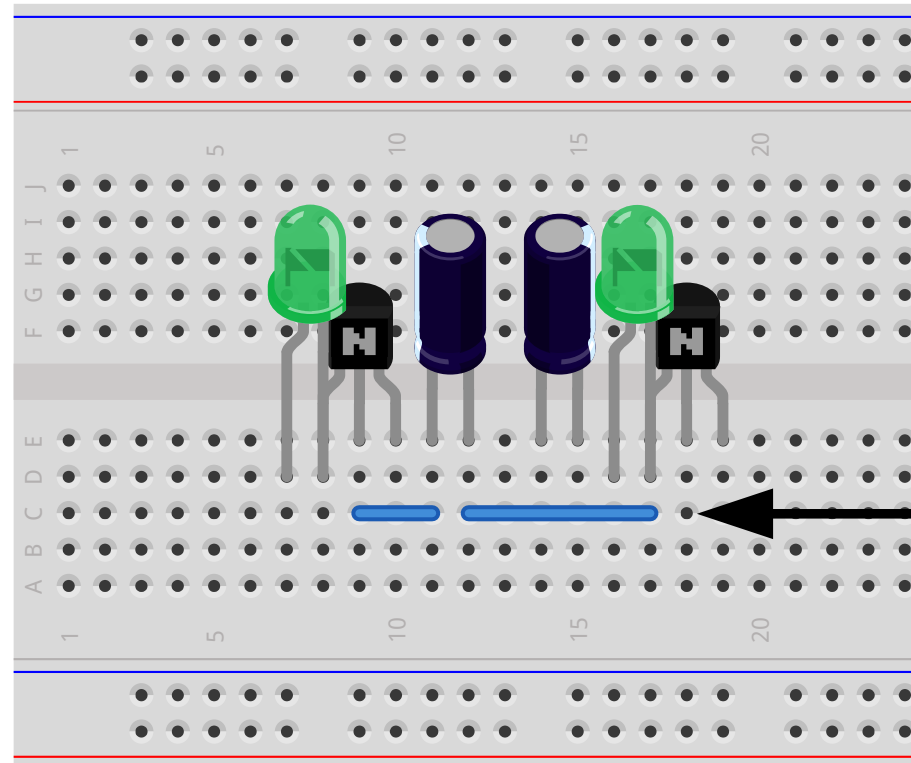
LEDs:

Flat side, short lead
on right

In row just in front
on transistors

Right wire overlaps
with transistor

LED Flasher – Step 3

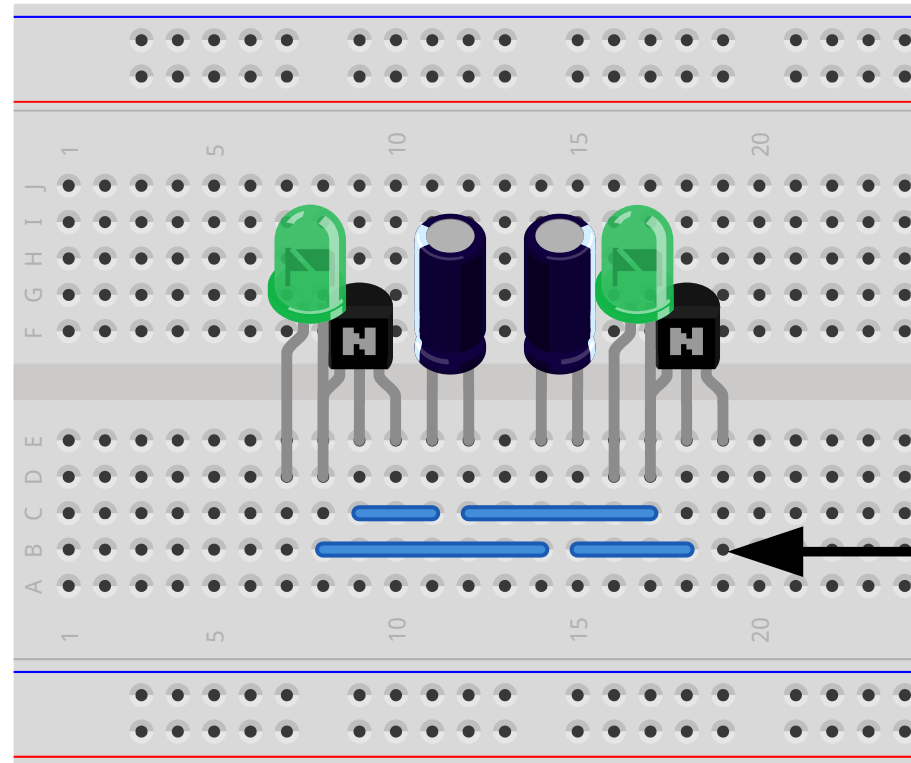


Add two Wires

In row in front of
LEDs

Pay careful attention
to exactly match the
picture

LED Flasher – Step 4

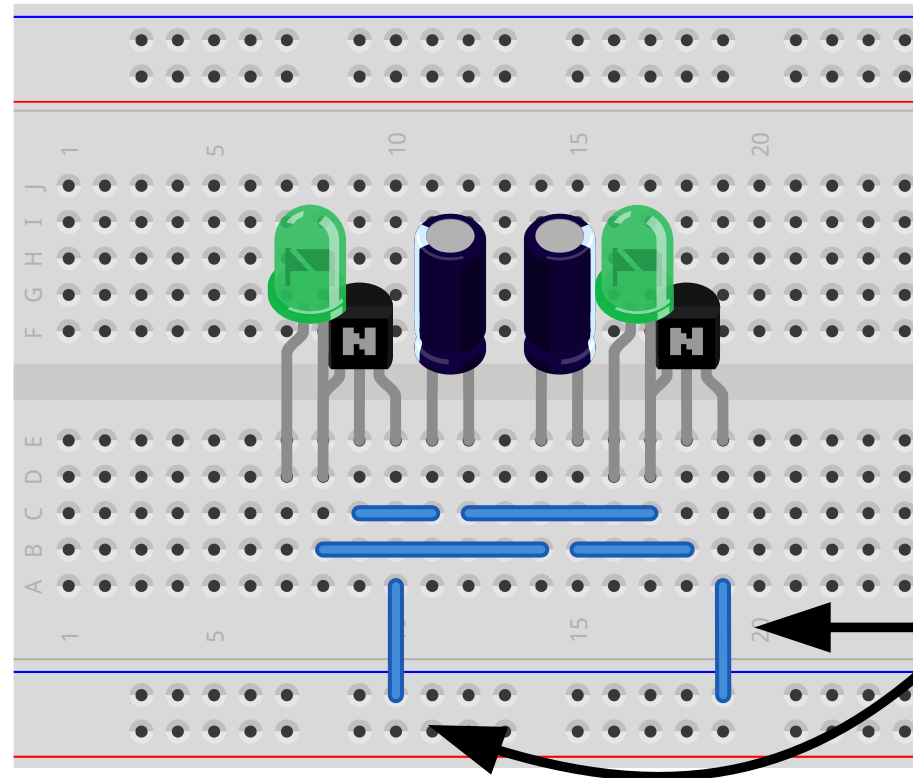


Add two Wires

In row in front of
LEDS

Pay careful attention
to exactly match the
picture

LED Flasher – Step 5



Add two Wires

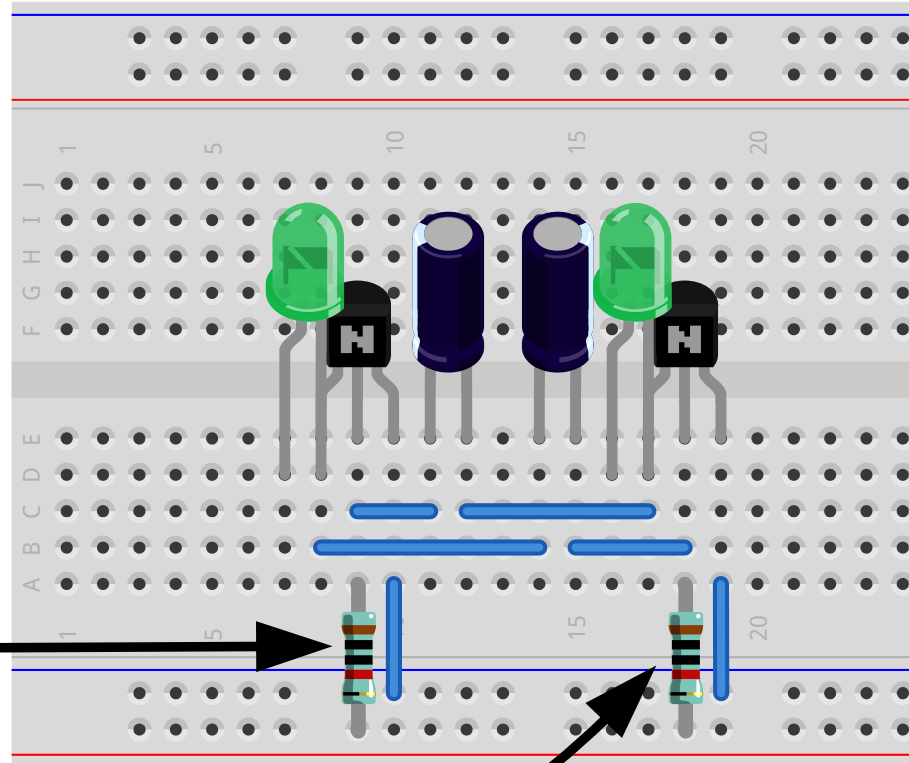
Pay careful attention
to exactly match the
picture

LED Flasher – Step 6

Resistor 10KΩ:

Brown black black
red

In the same column
as the transistors'
middle wire

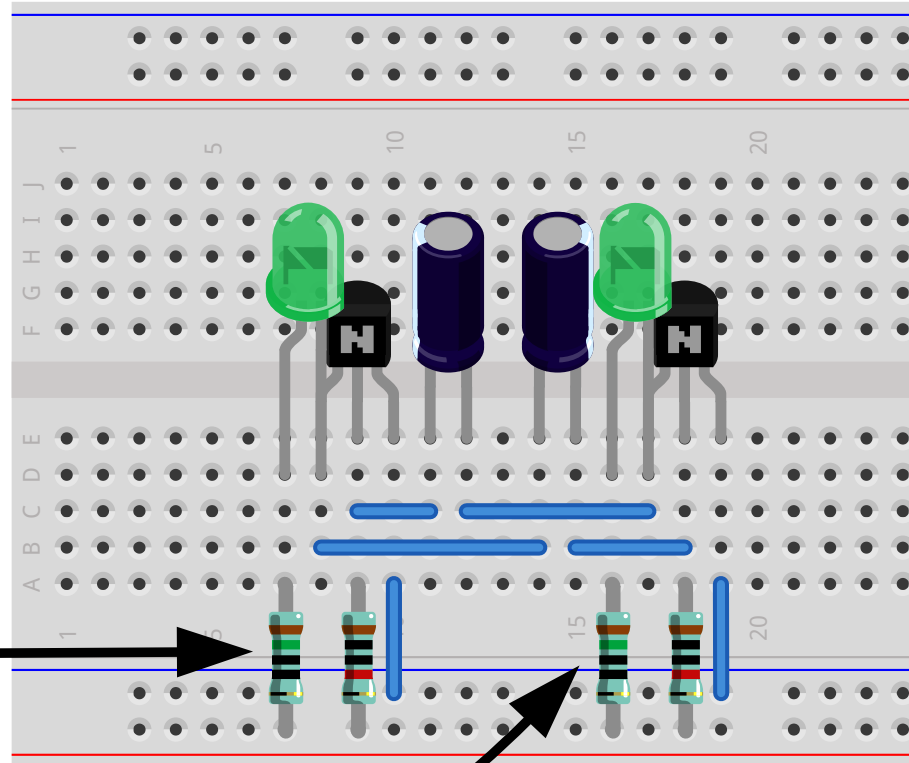


LED Flasher – Step 7

Resistor 150Ω :

Brown green black
black

In the same column
as the LEDs'
left wire

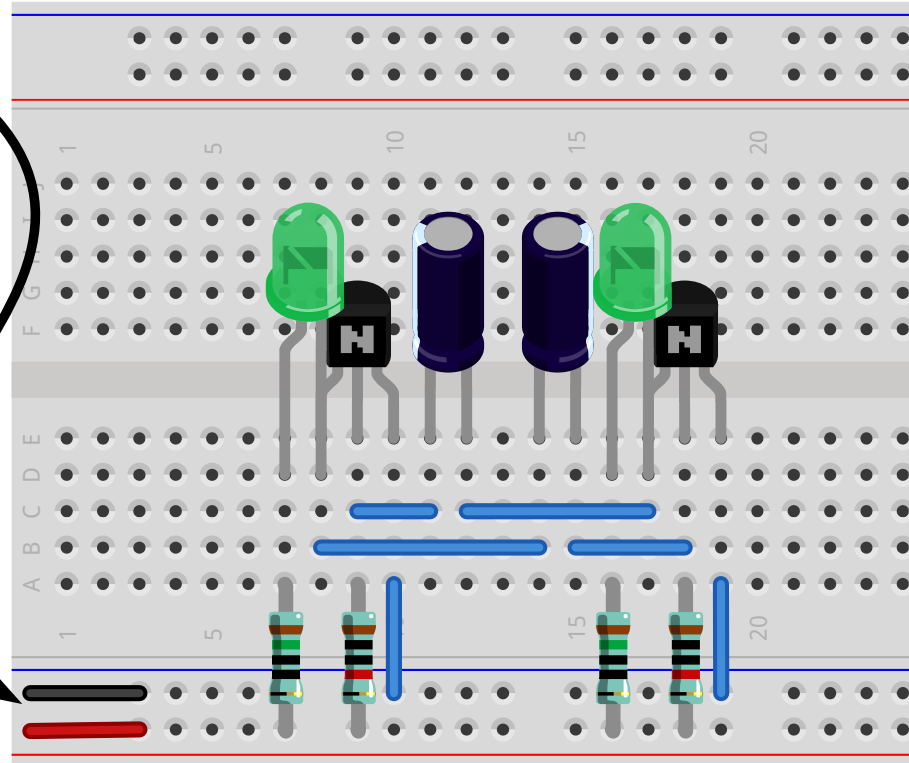


LED Flasher – Step 8

Plug in power once circuit is complete

Pay attention to the colors of the two wires

Observe the two LEDs' behavior



Which component do you think is responsible for the dynamic behavior of the circuit?
What do you think controls how fast the LEDs flash?

NOT gate – Analysis

- The left LED is the circuit's input
- The right LED is the circuit's output
- When the switch is not pressed, what state are the input and output? (Each is “on” or “off”)
- When the switch is pressed, what state are the input and output now?
- How does the output relate to the input? (unrelated, always on, always off, same, or opposite)