This led light we deconstructed was approved by our coach/mentor Mr.Legaspi.

By 9078A

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My team decided to take apart a led light that contained a remote, led strips, a plug, and the color block. We explored the led light because we wanted to see how it changed color and what happened in the process.

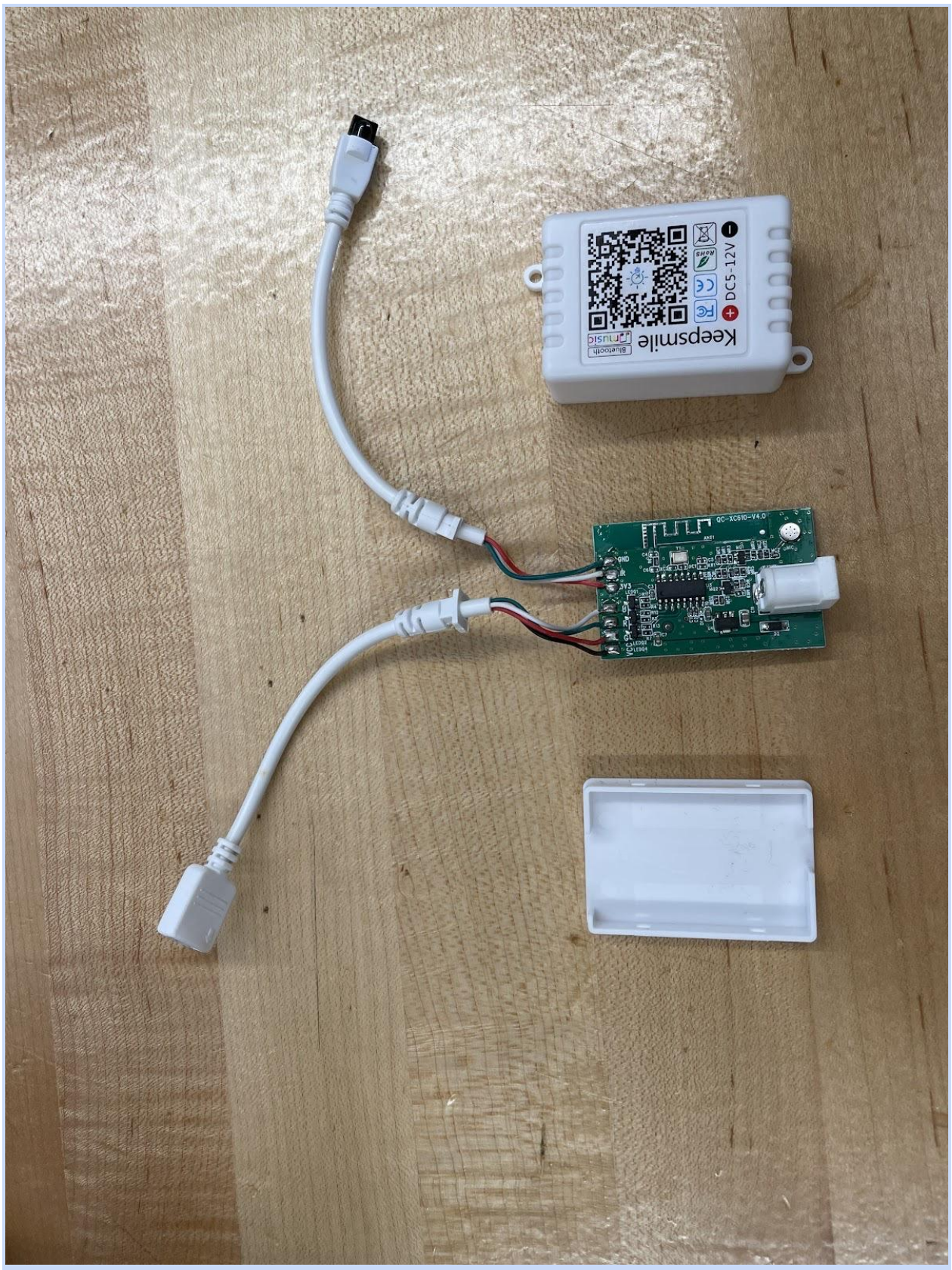

JUMP3
Keepsmile
Bluetooth
Music
DC5-12V
RoHS

B
R
G
+12V
G
R
B
+12V
G
R
B


LED Power Supply
Model:DDG-24W
Input:85-265V AC 50/60HZ
Output Voltage: 12V DC
Constant Current: 2.5A
FCC CE
DDGCP20210401

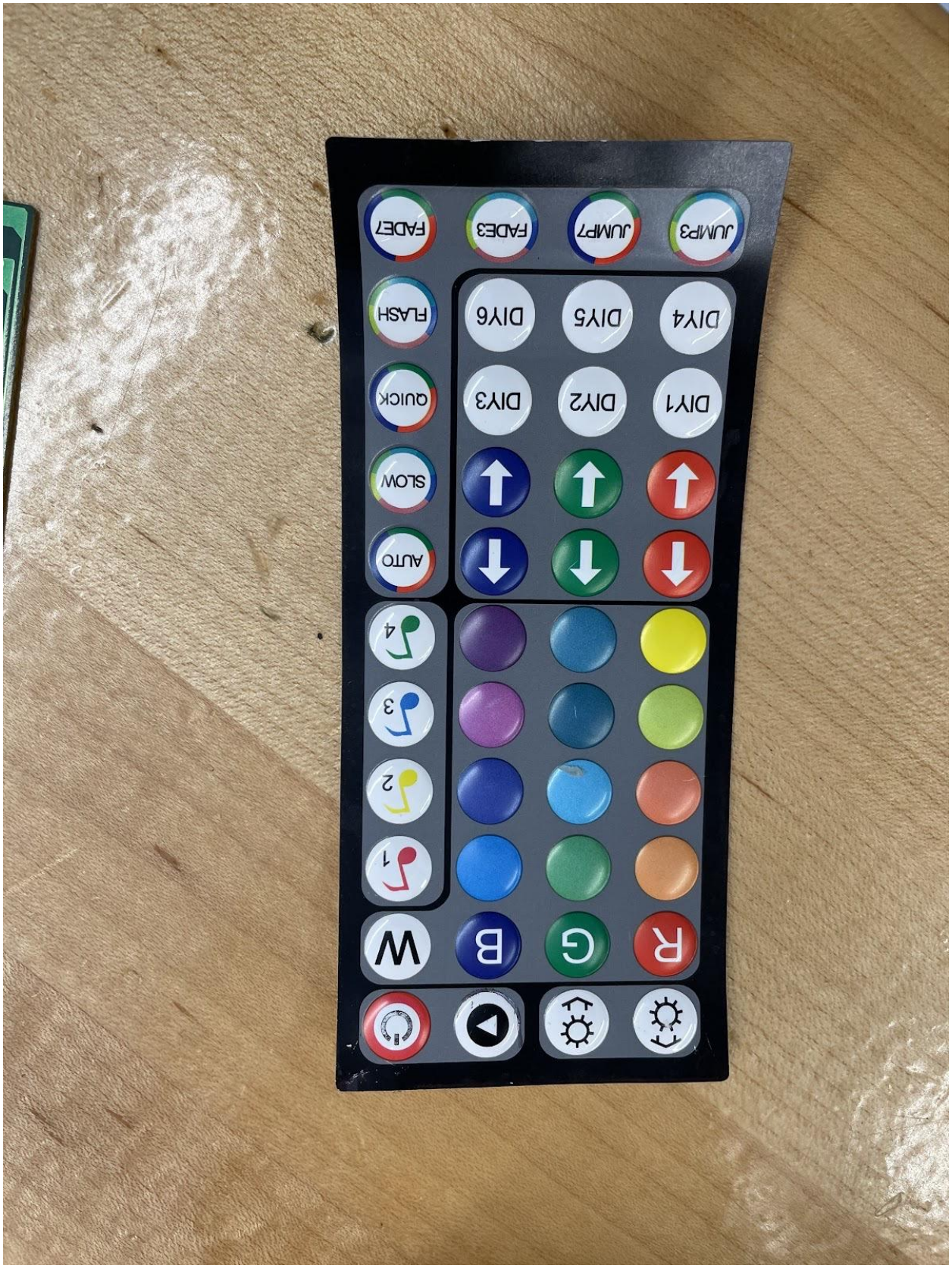

R
G
B
W
1
2
3
4
AUTO
SLOW
QUICK
FLASH
DIY1
DIY2
DIY3
DIY4
DIY5
DIY6
JUMP3
JUMP7
FADE3
FADE7

During the deconstruction of the led, we found the remote, strips, plug, and color block, which each contained their power (circuit board/ solder mask) plus they all had something to connect using electricity, except the remote which relied on a battery as its power source.

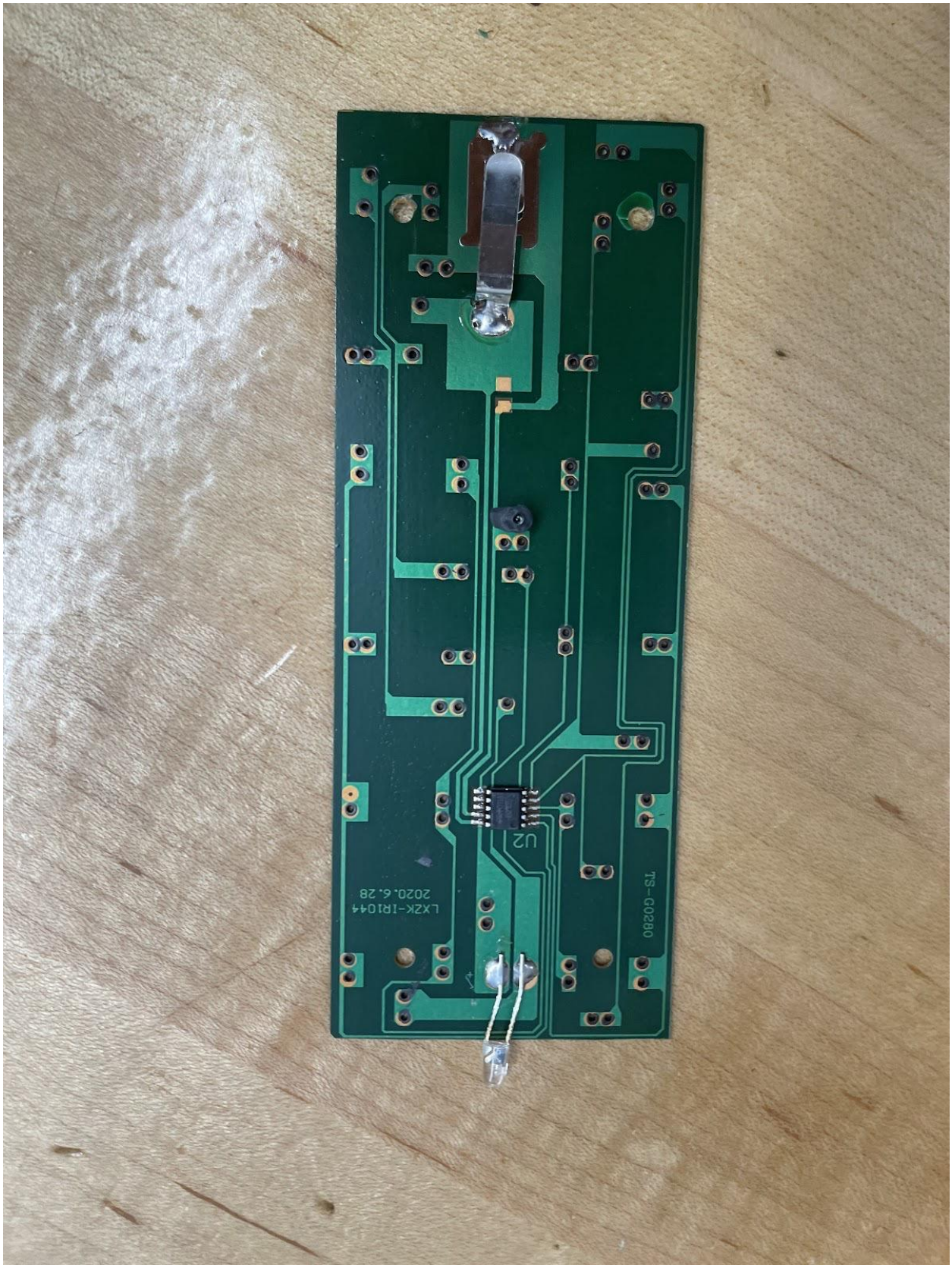

Keepsmile
Bluetooth
Music
DC5-12V
QC-XC610-V4.0


LED Power Supply
Model:DDG-24W
Input:85-265V AC 50/60HZ
Output Voltage: 12V DC
Constant Current: 2.5A
FCC CE
DDGCP20210401

- (remote) it sends electronic signals to the color block.



TS-44
7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2020.6.28
TS-G0280

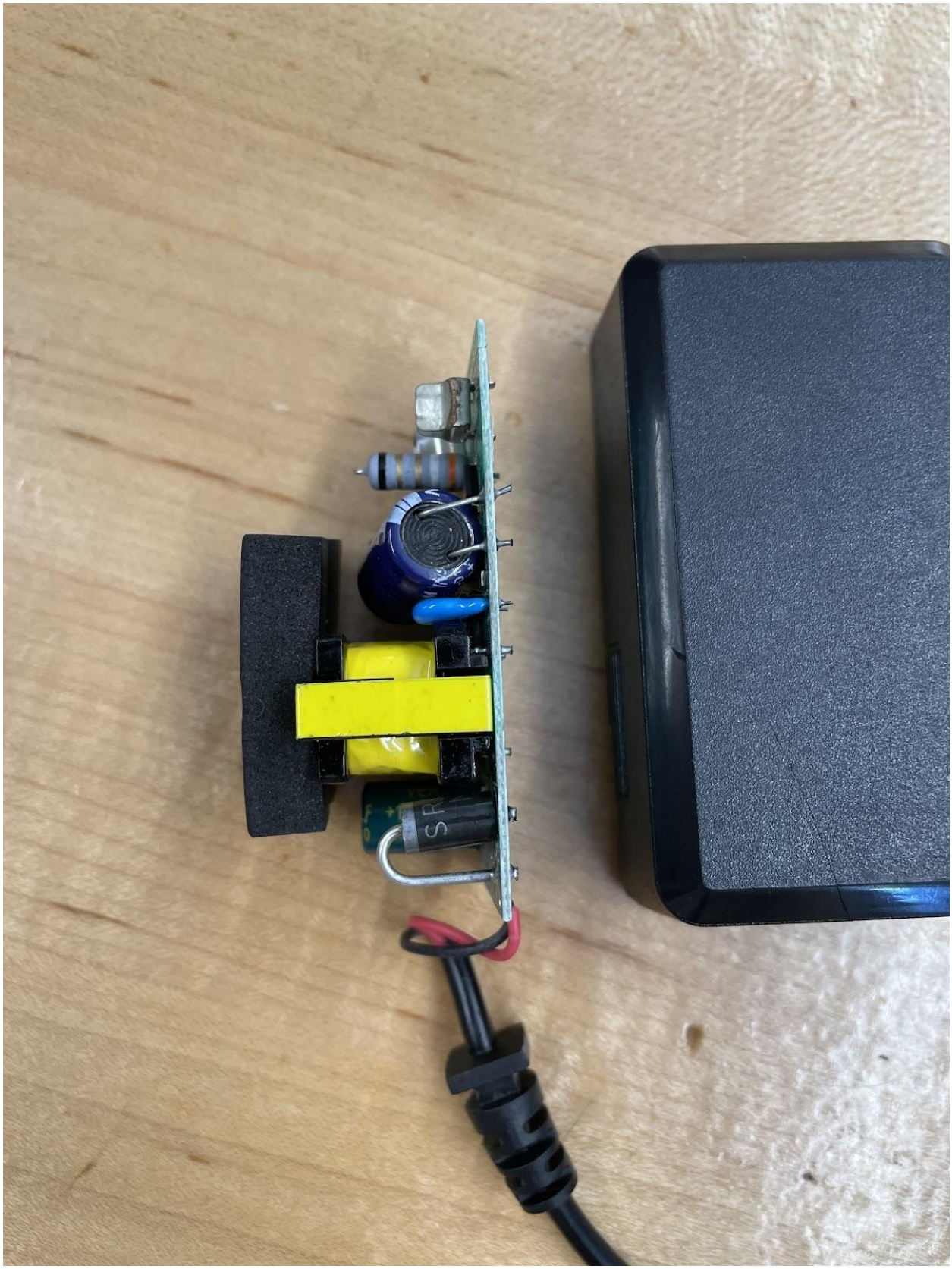
- (color block) receives an electronic signal and sends and connects to the led strip to change the color and can connect multiple led lights.

Keepsmile
DC5-12V
Bluetooth
+12V
G
R
B
+12V
G
R
B


JUMP3
keepsmile
Bluetooth
Music
DC5-12V
RoHS

keepsmile
Bluetooth
DC5-12V
QC-XC610-V4.0
GND
3V3

- (plug) connects to the color block and gives the whole system power.




LED Power Supply
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FCC CE
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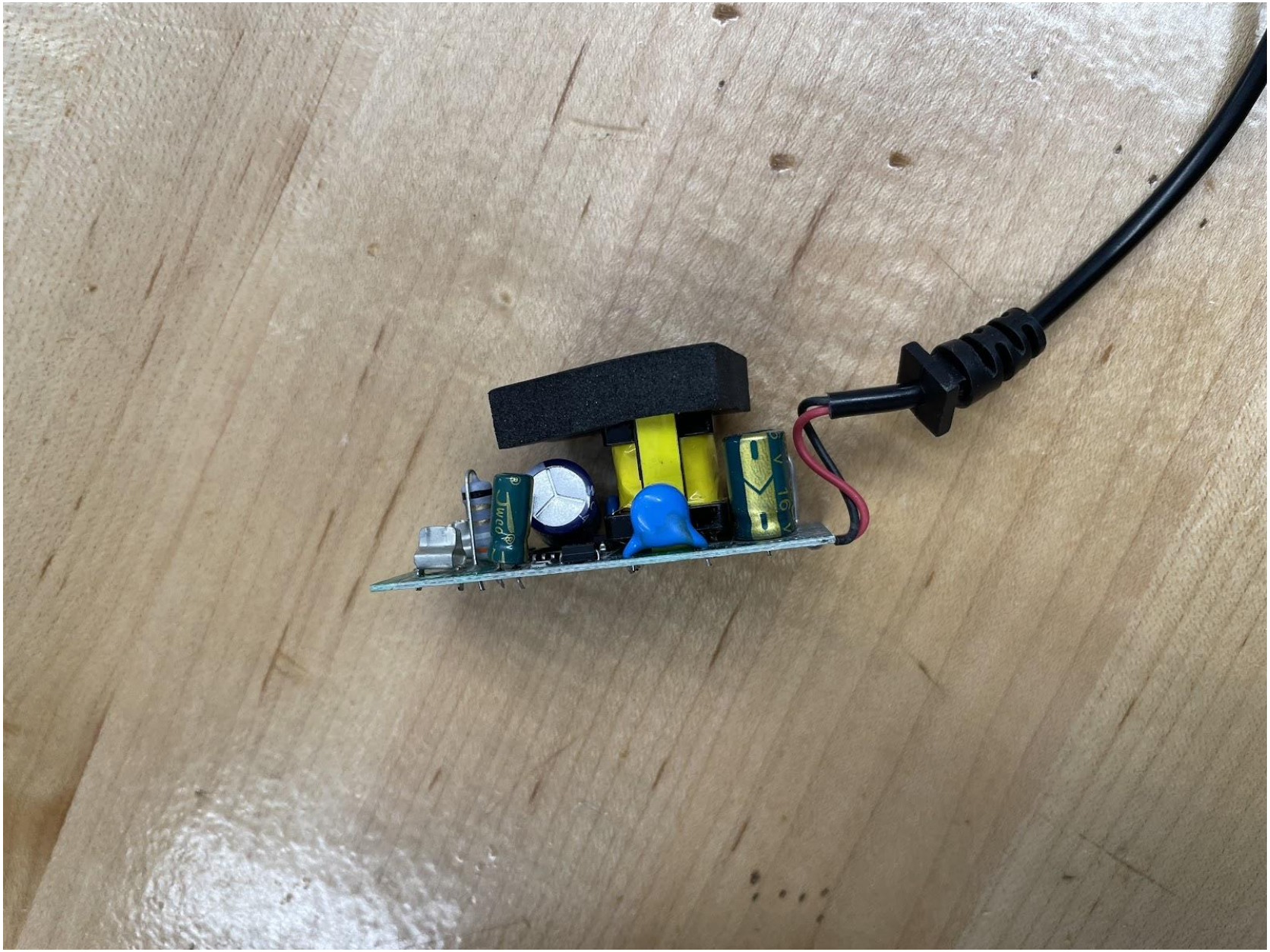
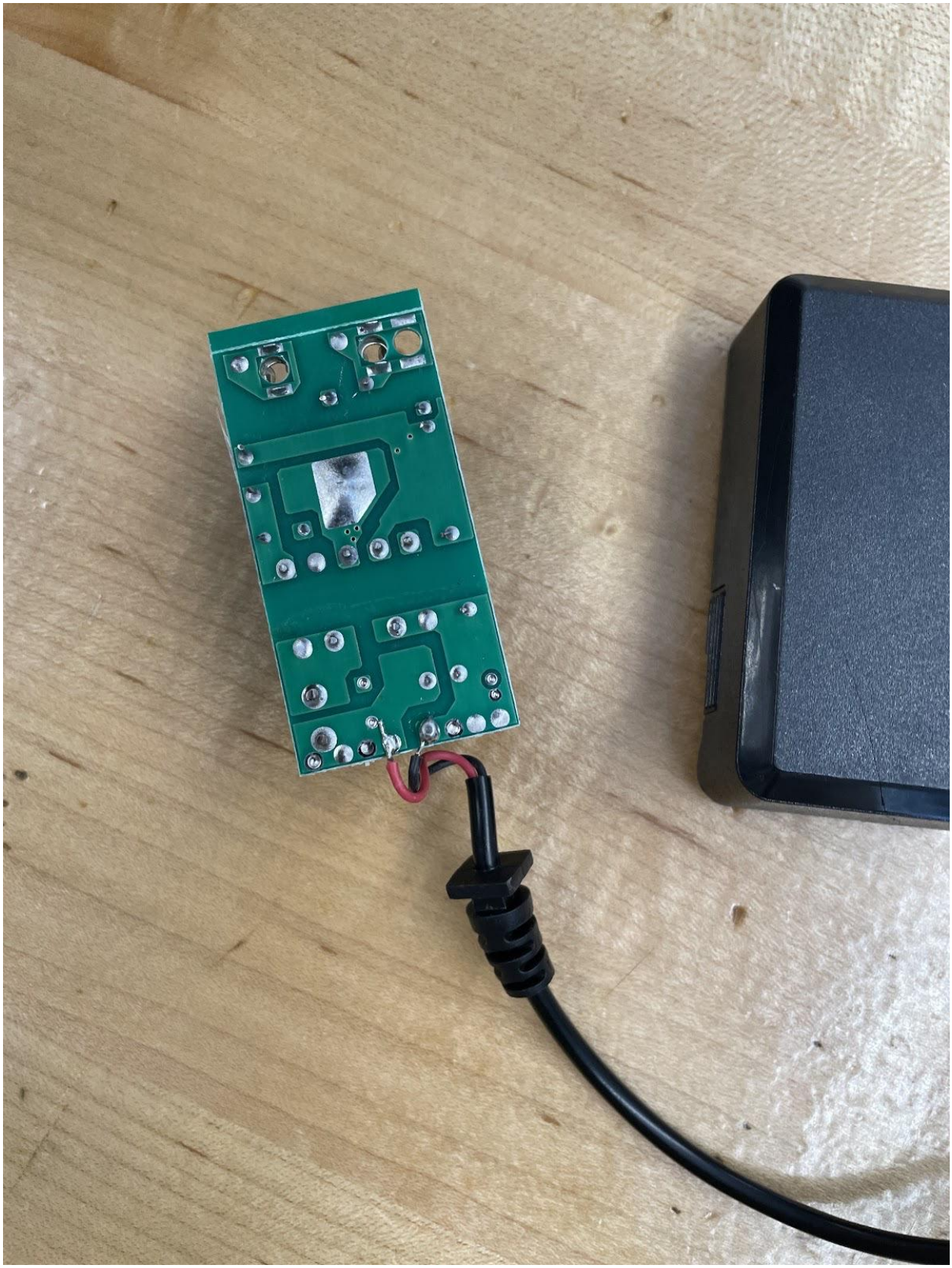
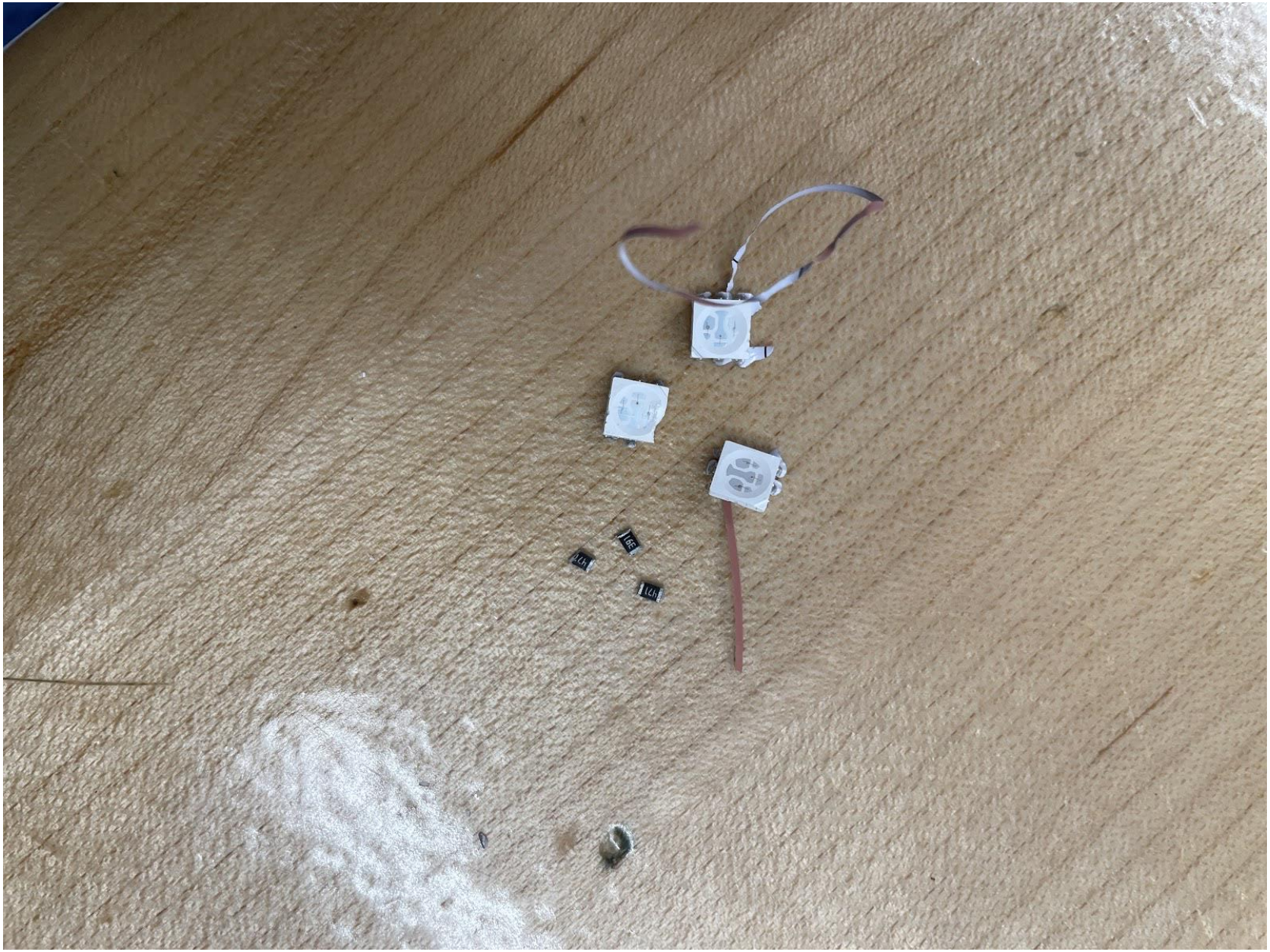




- (led strips) receives a signal from the color block and changes color from the color chosen by the remote and has these squares which turn different colors.

+12V
G
R
B
+12V
G
R
B



After my team and I took apart the lead we learned what, and how with a click of a button it changed color, because LEDs produce different colors by using various materials which produce photons at different wavelengths. Those individual wavelengths appear as the light of different colors, and a color-changing LED strip consists of multiple color channels on a single LED strip. The most basic type will include red, green, and blue channels (RGB), allowing you to dynamically mix the various color components on the fly to achieve virtually any color.