Schaltkreise

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2. Sem
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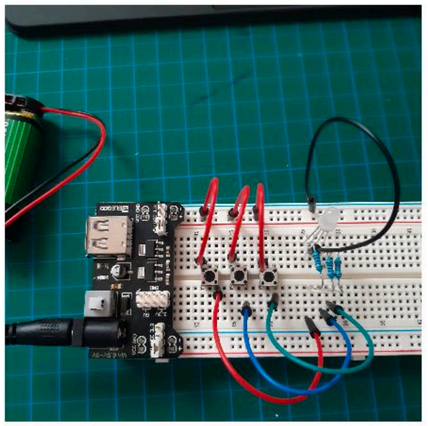
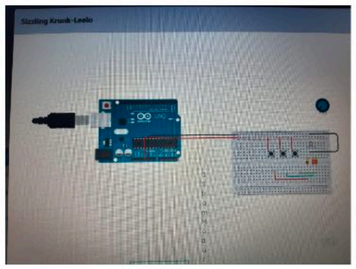
30022041

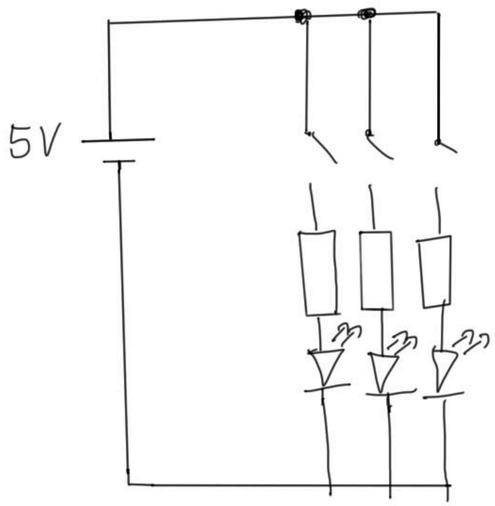
1



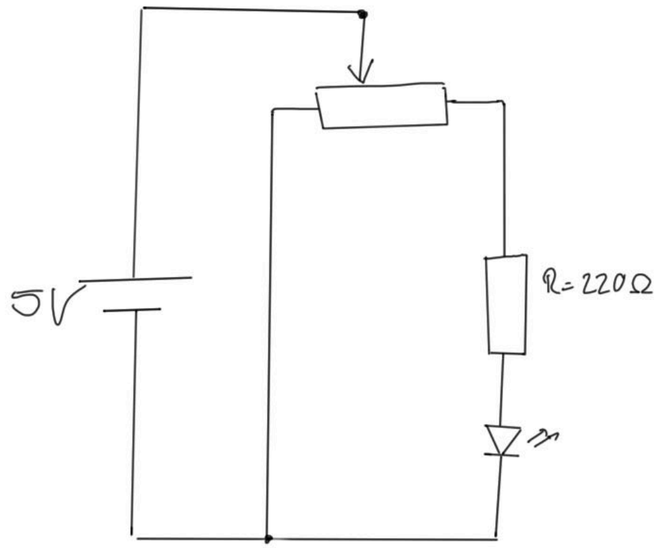
3 Wiederstände 220Ω 2x | 1x 10kΩ
1 RGD LED
7 kabel
1 9V Batterie
1 Strommodul
3 knöpfe



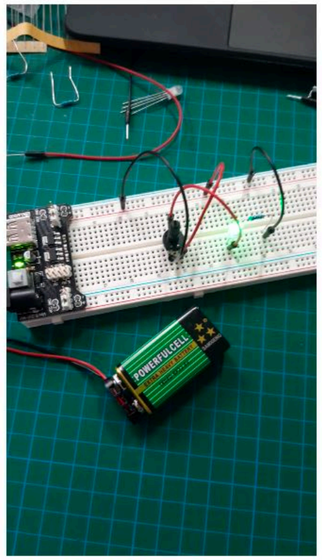
1. schaltkreis RGB-LED



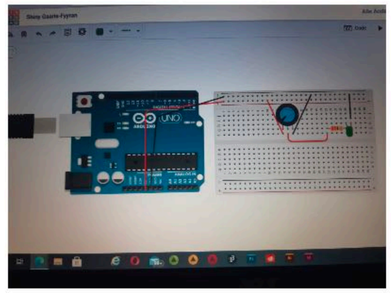
2. Schaltkreis LED dimmbar



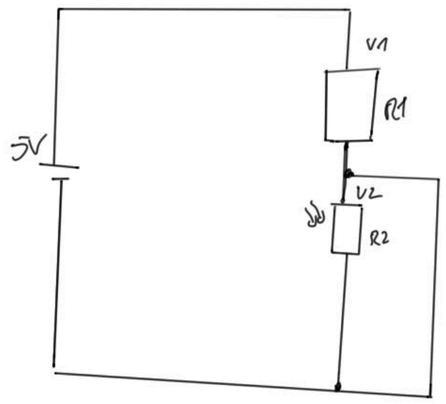
2



1 Steckbrett
4 kabel
1 Wiederstand 220 Ω
1 Strommodul
1 LED
1x 9V Batterie
1x Regler



3. Schaltkreis



$R_1 = 200\Omega$
$R_2 = 300\Omega$

$U_1 + U_2 = U_{ges}$

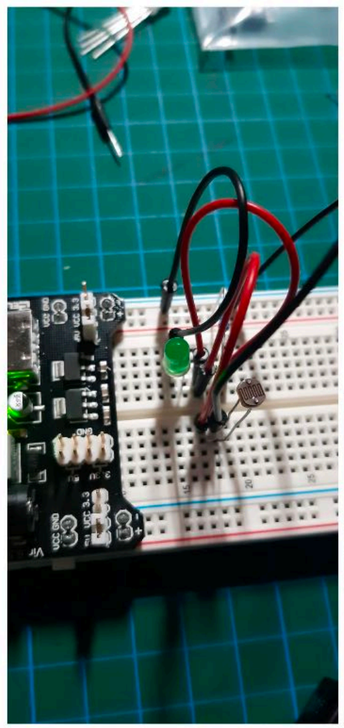
$\frac{U_1}{U_2} = \frac{R_1}{R_2}$

$R_{dunkel} = 12\,k\Omega$
$R_{hell} = 1{,}5\,k\Omega$
$U_{ges} = 5V$
$U_2 = 3{,}3\,V$
$R_2 = 12\,k\Omega$
$R_1 = 6{,}2\,k\Omega$

$\frac{U1}{V_2} = \frac{R_1}{R_2}$ $\quad \frac{1{,}7V}{3{,}3V} = \frac{R_1}{12k\Omega}$

$\frac{1{,}7V}{3{,}3V} \cdot 12\,k\Omega = R_1\ 6{,}2k\Omega$

3



1 Steckbrett
4 Kabel
1 Strommodul
1x 9 V Batterie
1x LED
1x 10kΩ Wiederstand
1x Fotowiederstand