

Arduino Track

Sit toward the front, two to a kit!



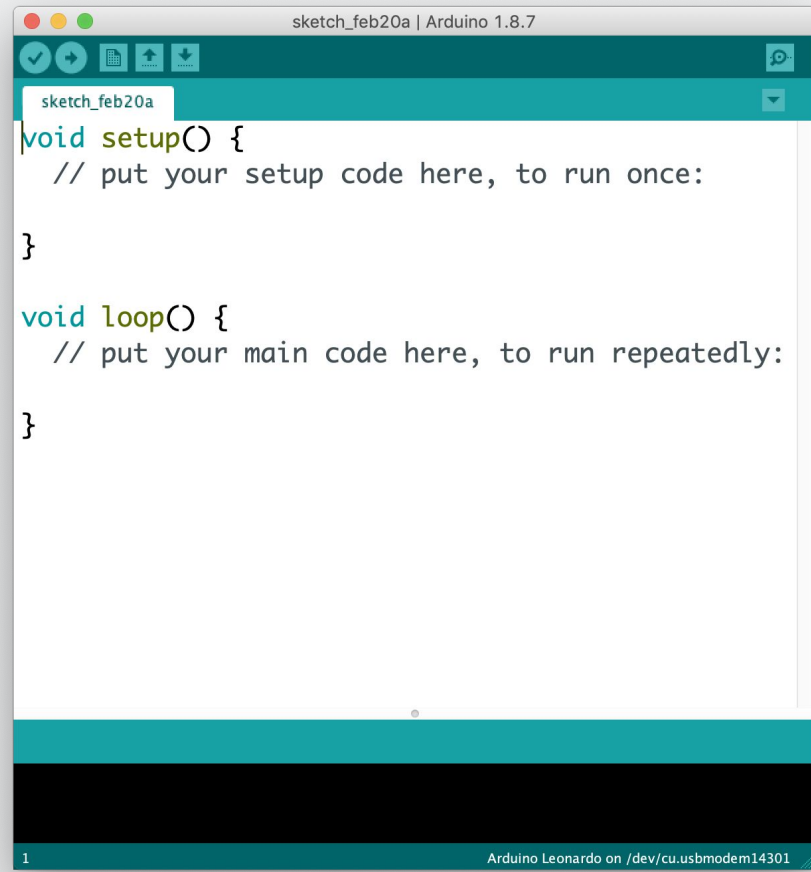
How to get help

- Sign in with GitHub at q.hackmit.org
- Create an account at github.com if you don't have one

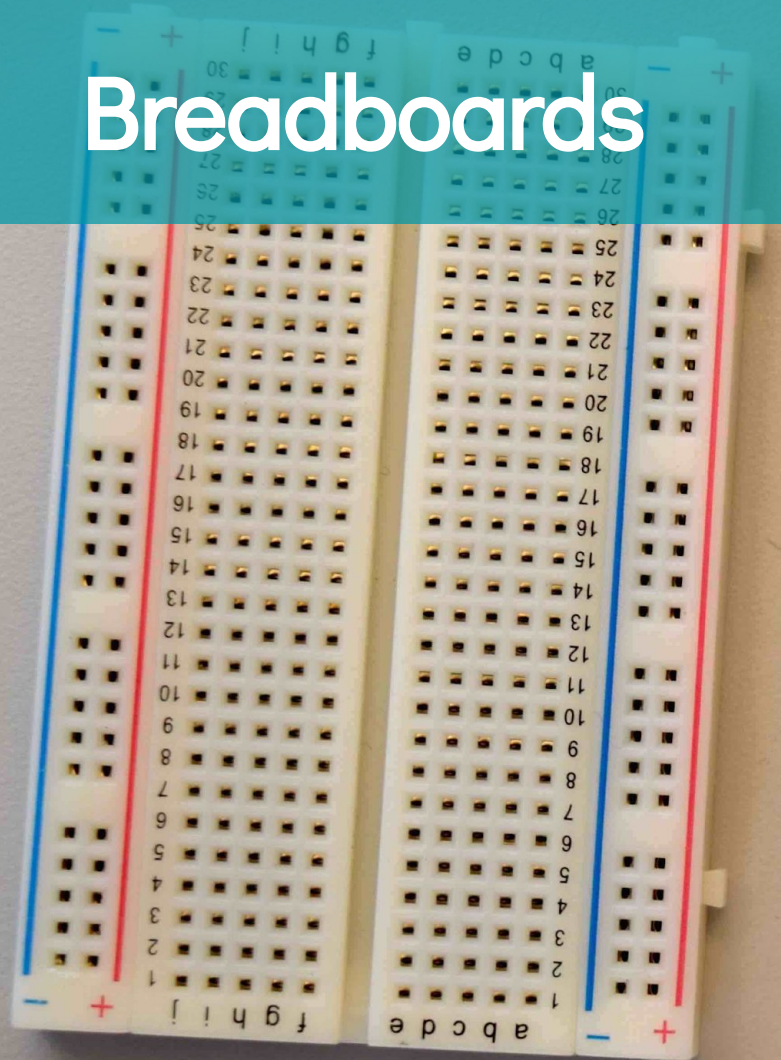
The screenshot shows a web browser window with the URL `https://q.hackmit.org`. The page has a blue header with the text "HELPq" and a user profile "Noah". The main content area is white and contains a form for requesting help. The form has the following sections:

- A greeting: "Hey, Noah!"
- A question: "How can we help you?"
- A text input field containing "I need help with".
- A text input field containing "My LED won't light up!"
- A text input field containing "you can find me at".
- A text input field containing "G9".
- A text input field containing "You can contact me through".
- A text input field containing "smoke signals".
- A blue button labeled "HELP ME!".
- A status message: "No mentors online right now." with a red dot icon.
- A message: "Currently in the queue: Nobody in the queue!"
- A footer: "Built with ❤️ by the HackMIT Team"

go.hackmit.org/ arduino



Breadboards



Part 1 Over!

- Pack up hardware and take it with you
- See you back here at 1 pm!



Arduino Track - Part 2

Return to your seat!



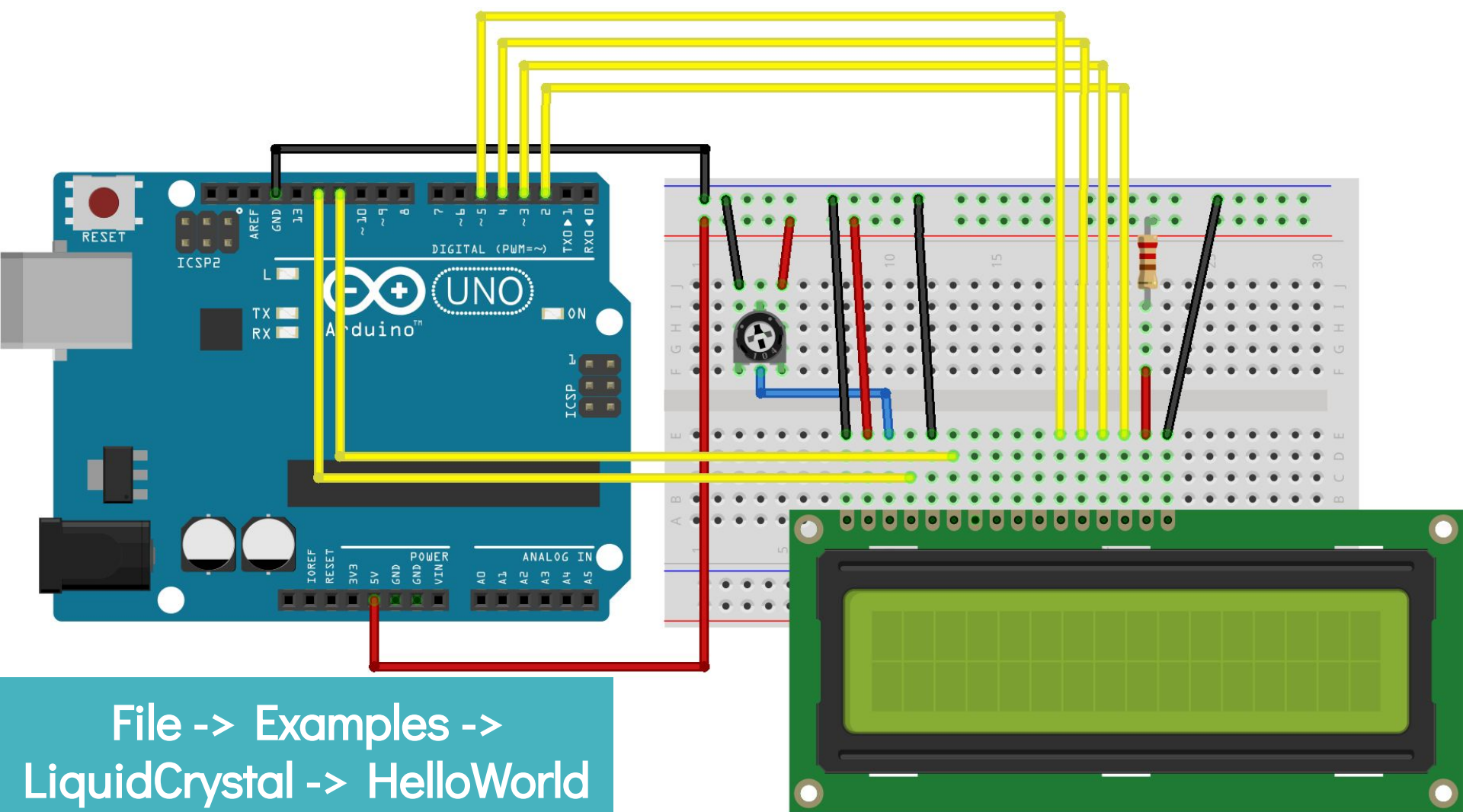
Part 2 Over!

→ 10 minute break, then back to it



Arduino Track - Part 3





Part 3 Over!

- Last hour will be **free time** to work on whatever you want: start brainstorming!
- Some ideas:
 - Theremin (buzzer, photoresistor)
 - Bop-it game (buttons, potentiometer, tilt switch, etc)
 - Burglar alarm (ultrasonic sensor, buzzer, LEDs)



Arduino Track - Part 4



Work on your own project!

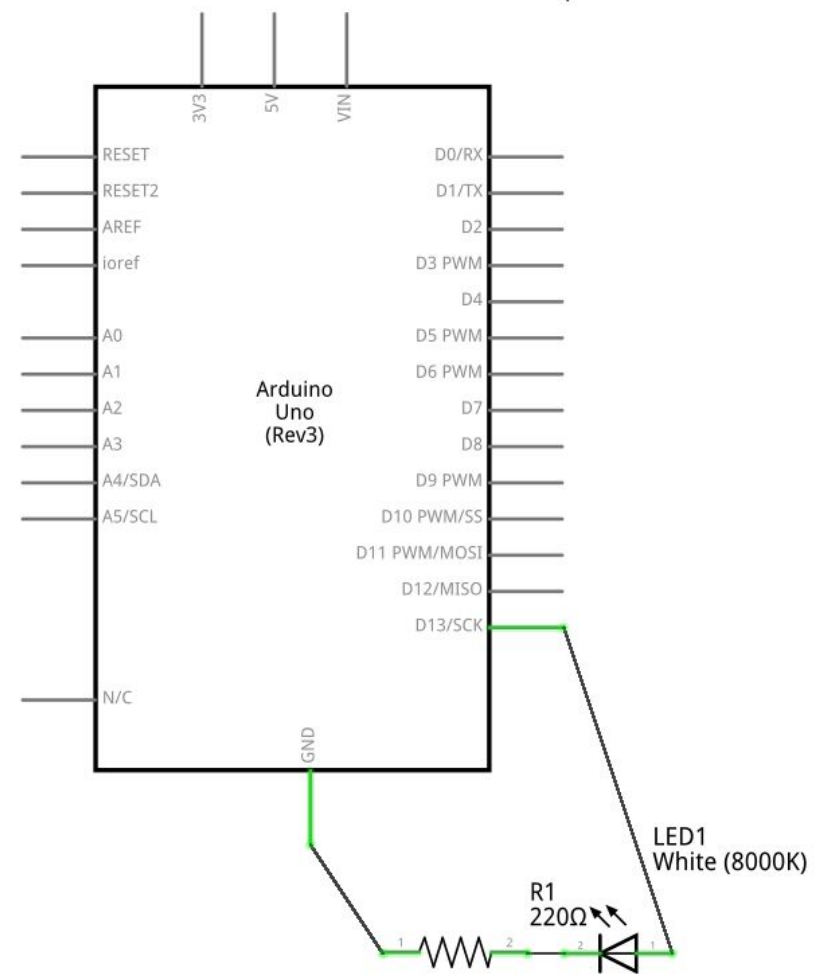
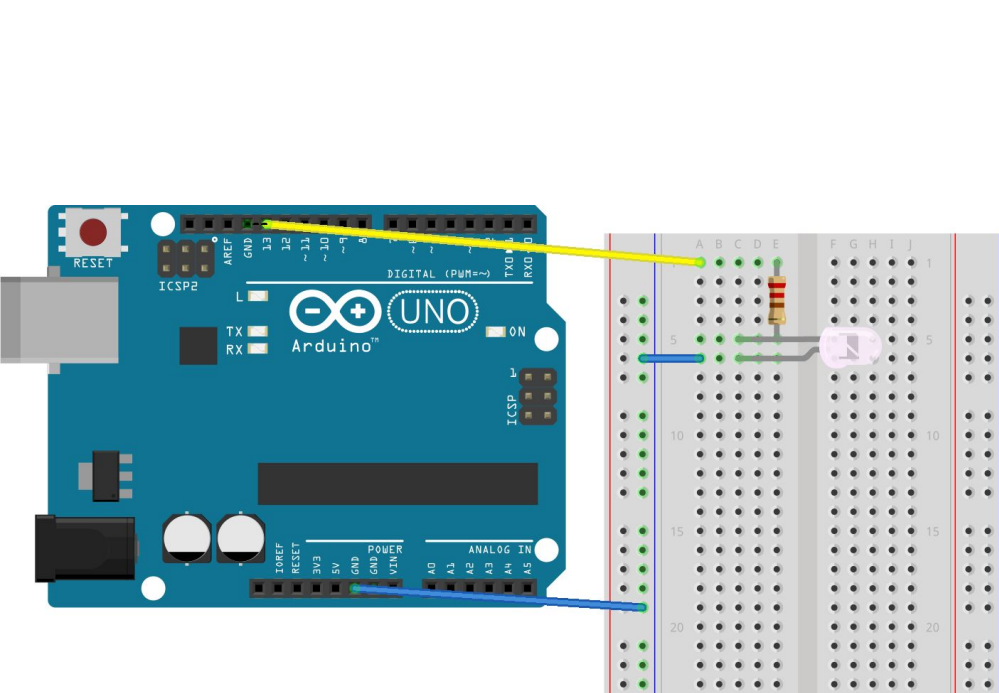
- Kit Guidebook (lots of projects):
 - go.hackmit.org/arduino-guide
 - go.hackmit.org/arduino-code
- Combine parts in creative ways:
 - Theremin (buzzer, photoresistor)
 - Bop-it game (buttons, potentiometer, tilt switch, etc)
 - Burglar alarm (ultrasonic sensor, buzzer, LEDs)
- Arduino Reference: <https://www.arduino.cc/reference/en/>
- Don't be afraid to talk to mentors and each other 😊



fin.

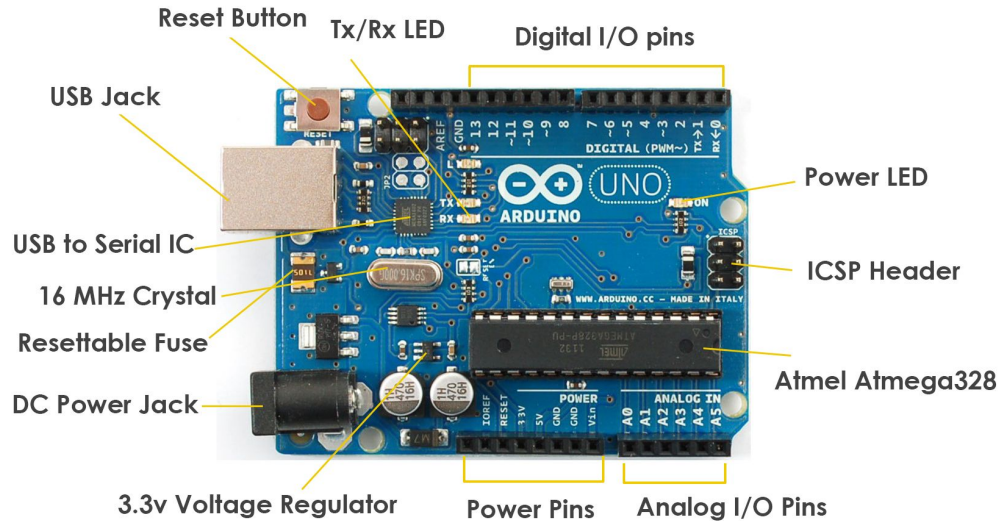
- Take pictures/videos of your creation, and go ahead and disassemble it
- Head over to closing talk in 32-123
- If you're coming to the hackathon, we'll see you tomorrow!

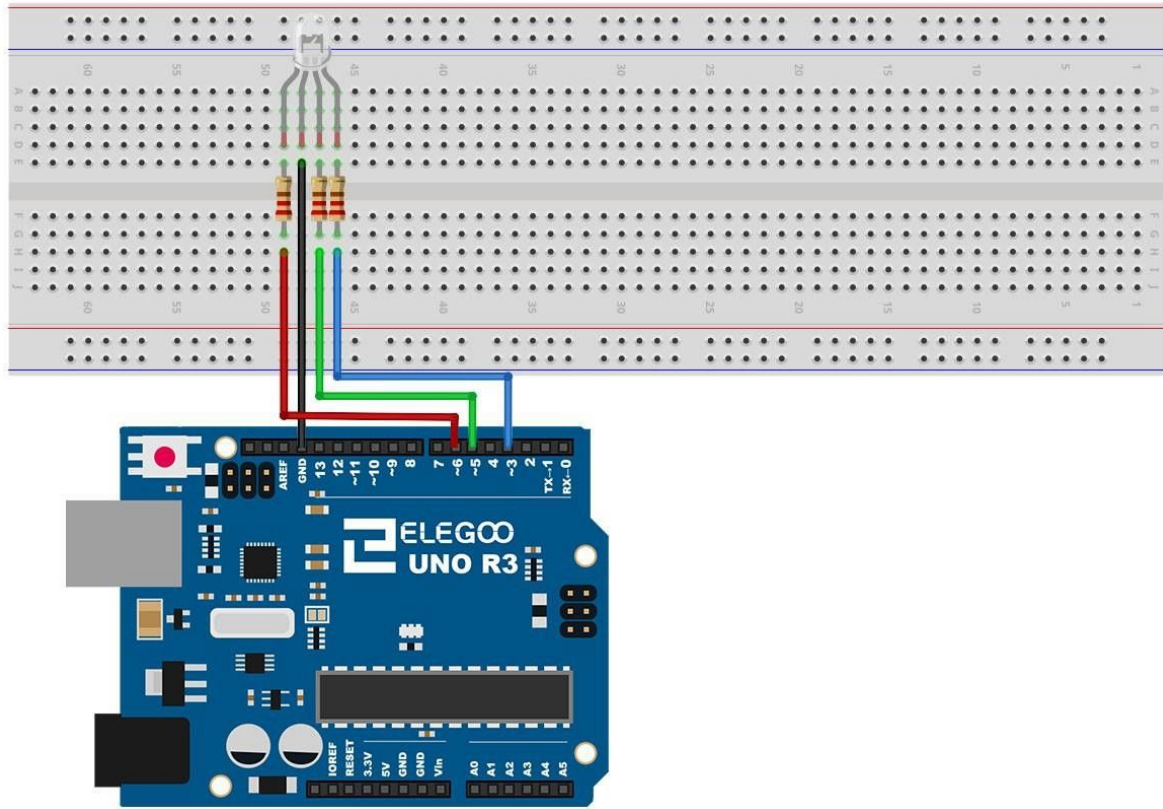




Offboard LED wiring

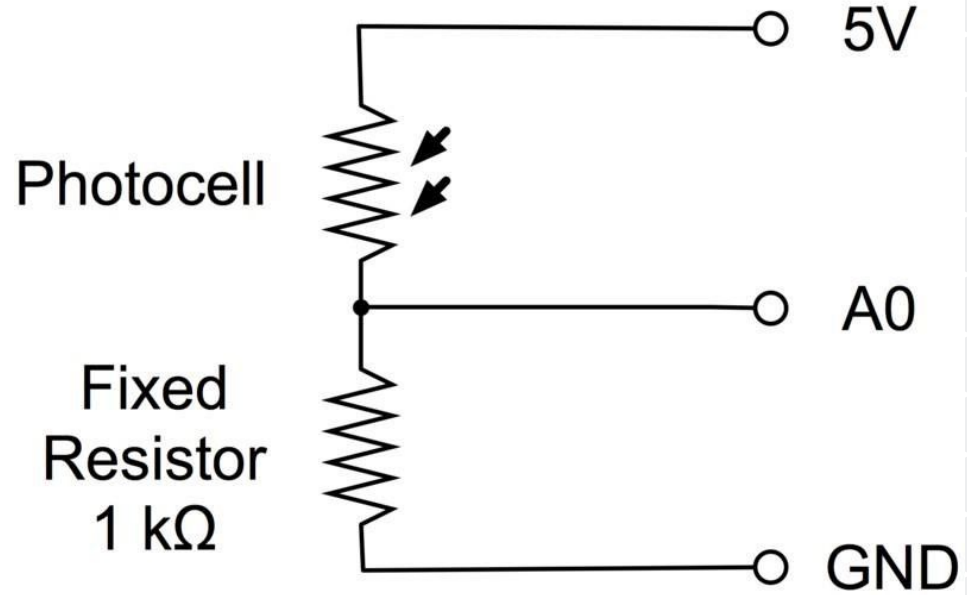
Arduino Board Layout



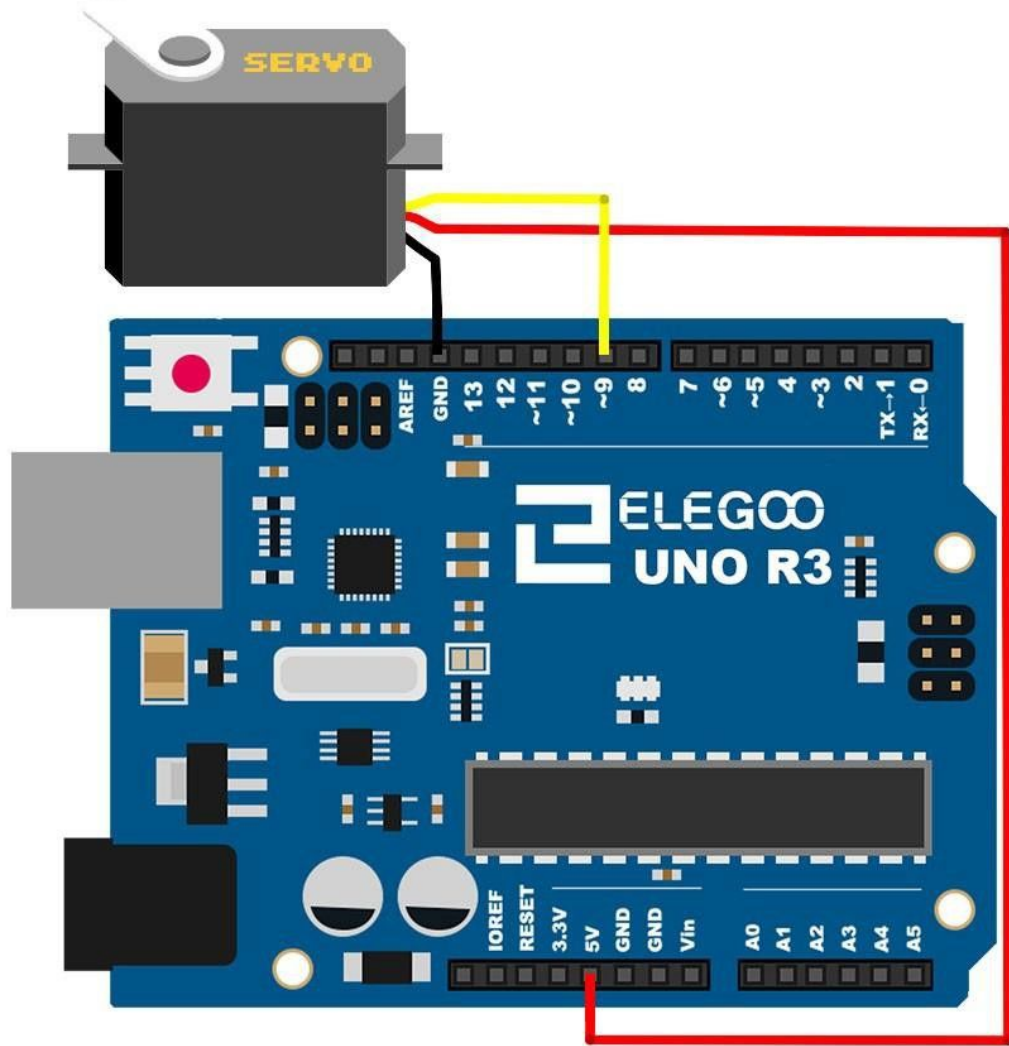


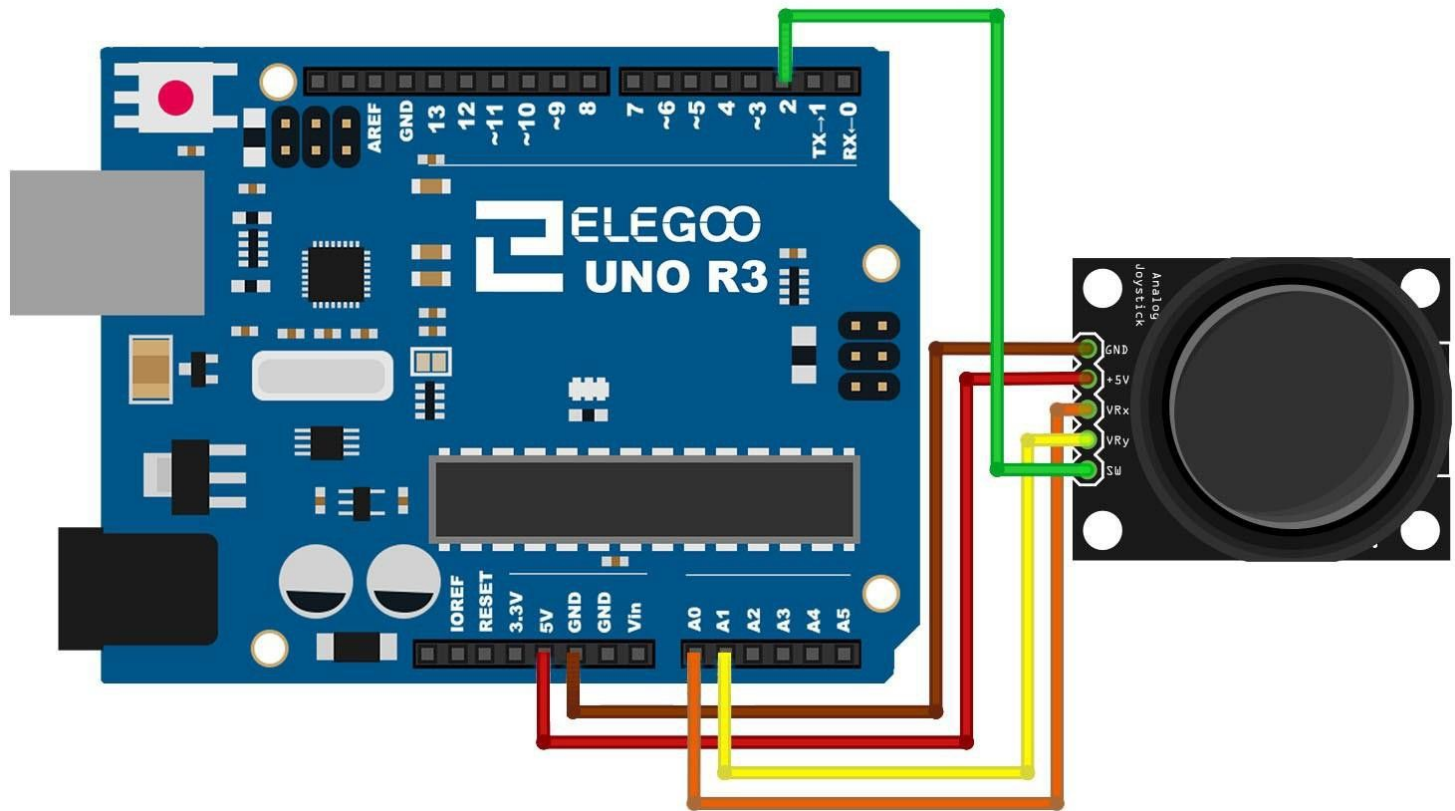
Try to get the RGB LED working if you finish!

Photoresistor wiring

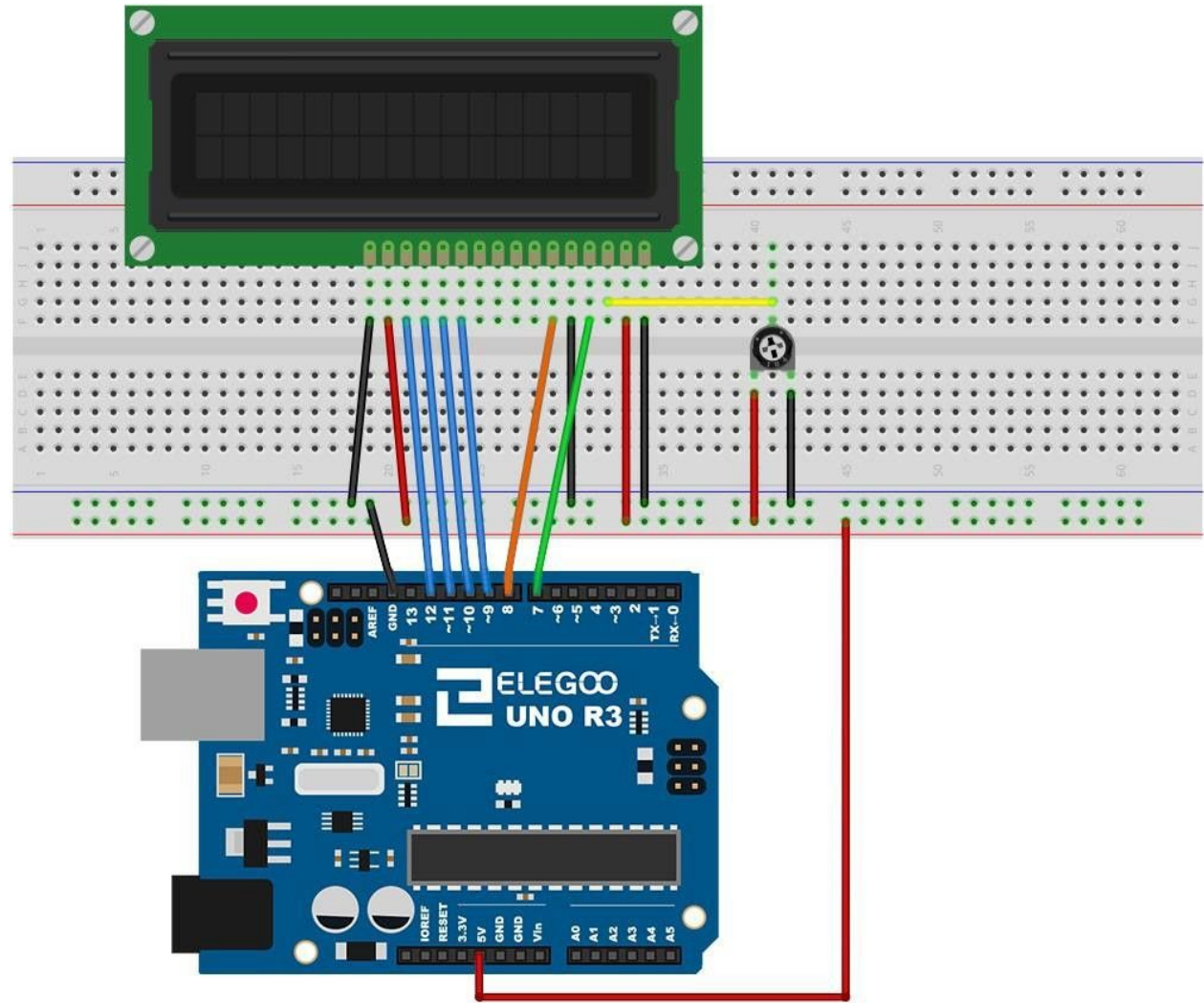


Servo wiring





Full joystick wiring



LCD wiring