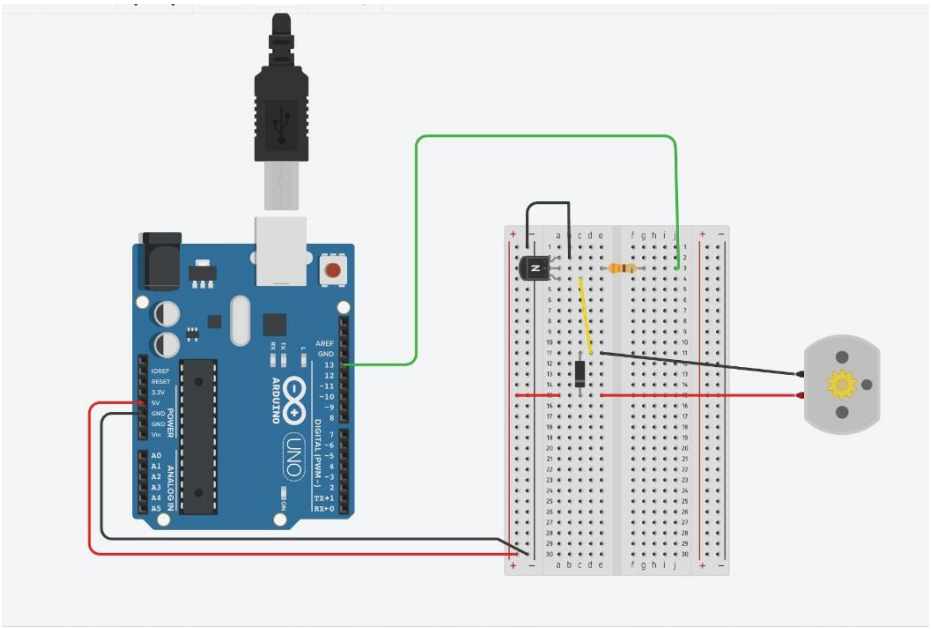
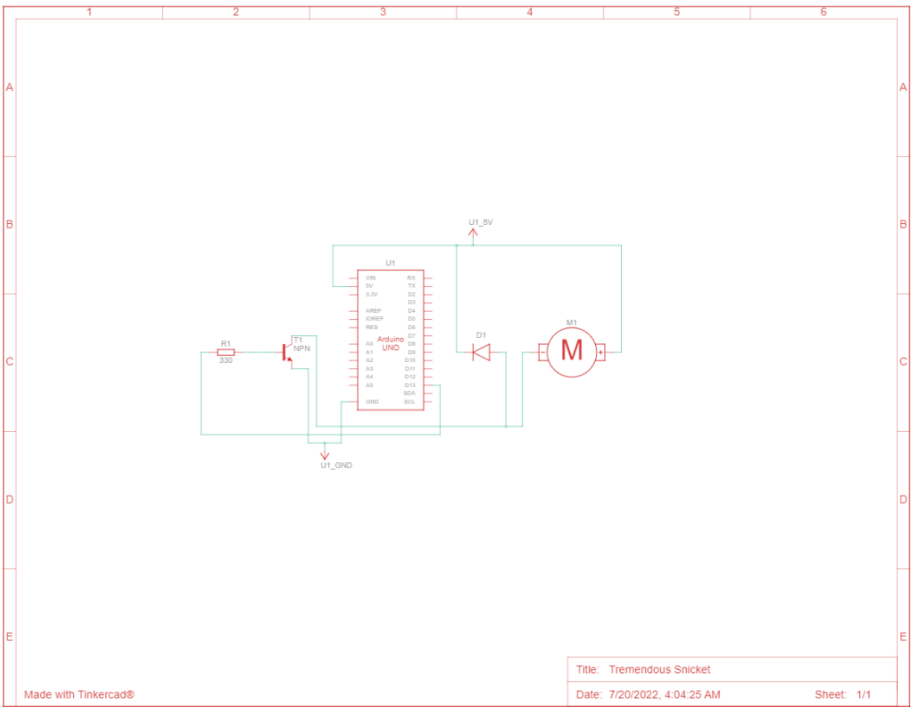
Controller system for brushless motor

by tinkercad

https://www.tinkercad.com/things/ac9qnkFQprd-tremendous-snicket/editel?sharecode=SPLEQS10XeNomuHiC1IPyknVxQulTlOA0x-6Y5Jn7w8





Name	Quantity	Component
U1	1	Arduino Uno R3
M1	1	DC Motor
R1	1	330 Ω Resistor
D1	1	Diode
T1	1	NPN Transistor (BJT)

algorithm:

1.run the tinkercad and register to it.

2.open a new project.

3.search for the component in the table above and place them near to gather.

4.then start the connect first a wire from the uno (5V) port to the positive side of the breadboard small and make red, then the (GND) port to the next place in the negative side of the breadboard small and make color black.

5.then connect the dc motor as you see in the first picture have tow wires the red one connect to the breadboard

small from one side and the other side to the diode which mean the diode be a point of intersection.

6.the black wire of the also from one side and the other side to the diode.

7.place the npn in the row a of the breadboard small and then connect the bottom port in between to the black wire and diode and the middle one to the resistor which place between the two side of the breadboard and the first port connect to the negative bar.

8.the last step of design connects the other side of the resistor to any port of the uno.

9.then press start simulation to see the move of the motor.

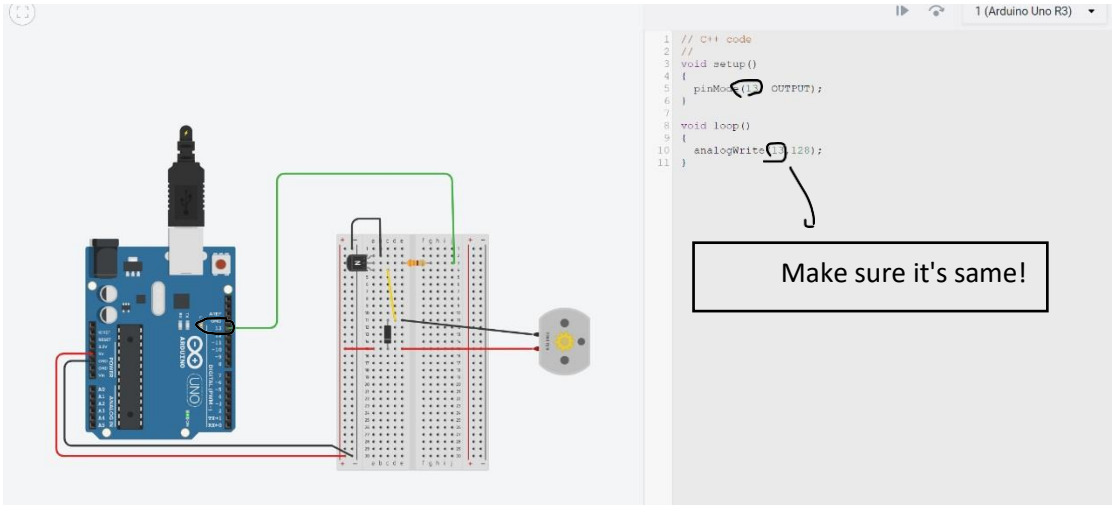
10. you can also see the code

Text 1 (Arduino Uno R3)

```
// C++ code
//
void setup()
{
  pinMode(LED_BUILTIN, OUTPUT);
}

void loop()
{
  digitalWrite(LED_BUILTIN, HIGH);
  delay(1000); // Wait for 1000 millisecond(s)
  digitalWrite(LED_BUILTIN, LOW);
  delay(1000); // Wait for 1000 millisecond(s)
}
```

and the speed of the motor is then controlled with the (analogWrite) command.



resources

https://youtu.be/OulgDvPZiUQ