```cpp
/* boost converter guide at reibot.org

feedback connected to analog 1.
pwm pin is on digital 11

Basic controller
*/
void setup(){

  Serial.begin(115200);


  pwmSetup();


}

void loop(){

  int targetVoltage = 100; //type in the voltage you want. Refer to guide on limiting comonents

  //using resistive voltage divider, same R1 and R2 on wikipedia "voltage divider"
  //R1 is connected to high voltage
  //R2 is connected to ground
  double R2 = 200000;
  double R1 = 10000000;
  double voltage = (analogRead(A1)/1023.)*4.9*(R2+R1)/R2;



 if(voltage < targetVoltage){

    OCR2A = 100;
 }

  if(voltage > targetVoltage){

    OCR2A = 0;
  }


}



void pwmSetup(){//just run once at setup

  pinMode(3, OUTPUT); //OCR2B  3 and 11 are pwm channels
  pinMode(11, OUTPUT); //OCR2A


  TCCR2A = _BV(COM2A1) | _BV(COM2B1) | _BV(WGM20); //phase correct pwm 31250hz


  TCCR2B = _BV(CS20);//change this as datasheet says to mainly get different pwm frequencies

  OCR2A = 0;
  OCR2B = 0;

}
```