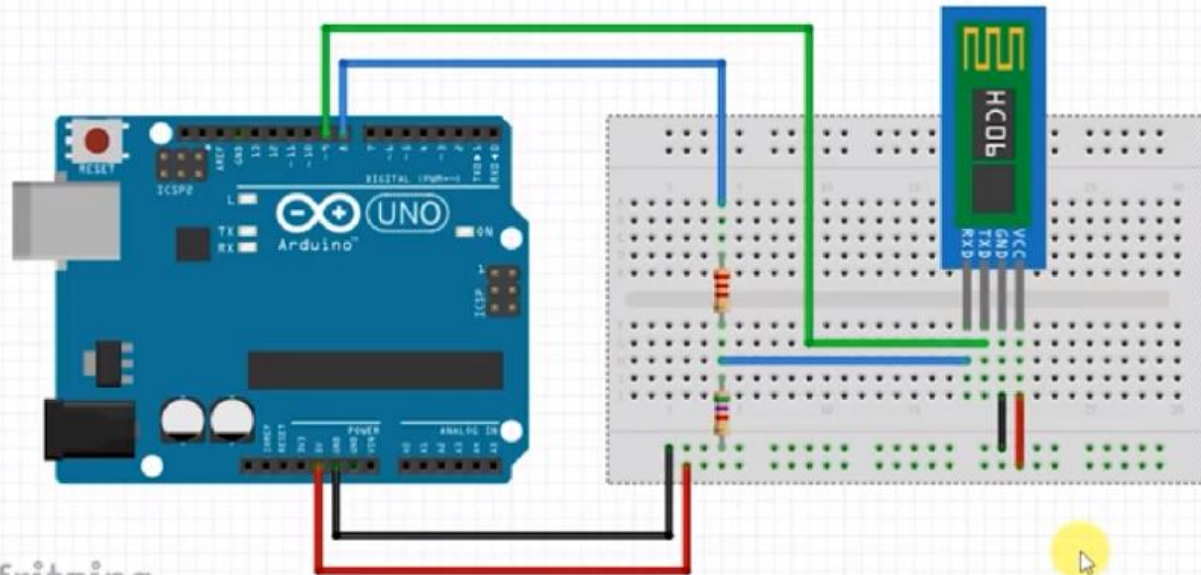Arduino/Bluetooth with the HC-05 Breakout Board

NOTES: Blue = Transmit on UNO #8 and connects to RX on HC-05!
         Green = READ on UNO #9 and connects to TX on HC-05

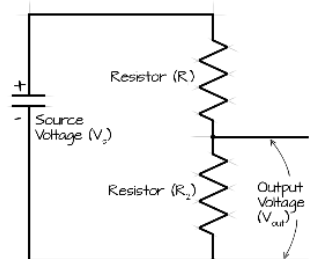The TX--→RX and RX→TX. In Arduino Code make sure Software Serial is setup correctly.
Partial Code:
SoftwareSerial BTSerial(rxPin, TxPin); //receive & transmit
pinMode(rxPin, INPUT);
pinMode(txPIN, OUTPUT);
BTSerial.begin(9600);

Powering the HC-05
TX pin on the HC-05 needs 3.3V NOT 5V. The voltage divider provides
3.3v from the UNO 5V supply.
R1= 1K and R2= 2K for the divider.