Connection diagram:

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1. Wind Speed & Wind Direction Sensors (4 wires each - for each sensor and converter)

Sensor Wire Color		Description
Brown	**VCC (12 VDC)**	Power (External Power Supply)
Black	**GND**	Ground (External Power Supply)
Green	**A (RS485 Converter)**	RS485 Communication Line A
Blue	**B (RS485 Converter)**	RS485 Communication Line B

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2. RS485 to TTL Converter (for each sensor)

RS485 Converter (Color)	Arduino Pin	Description
VCC (Red)	**5V**	Power for RS485 Converter
GND (Black)	**GND**	Ground
DI (Purple)	**TX (Arduino 3 for Speed, 5 for Direction)**	RS485 Data Transmit
RO (Blue)	**RX (Arduino 2 for Speed, 4 for Direction)**	RS485 Data Receive
DE (Yellow)	**DE (Arduino 7 for Speed, 9 for Direction)**	RS485 Driver Enable
RE (Orange)	**RE (Arduino 8 for Speed, 10 for Direction)**	RS485 Receiver Enable

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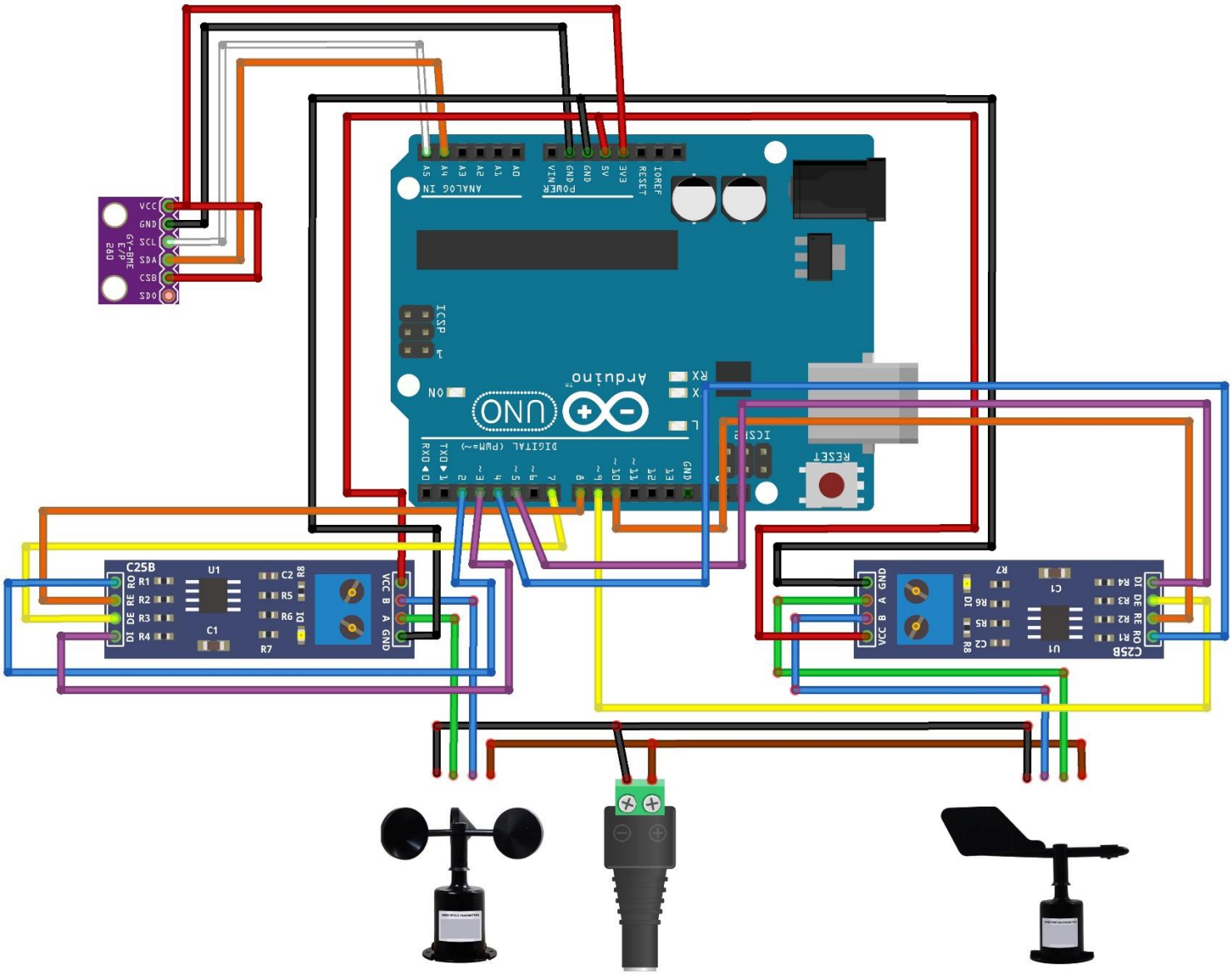
3. BME280 Sensor (I2C)

BME280 (Color)	Arduino Pin	Description
VCC (Red)	**3.3V**	Power (⚠️ Do NOT use 5V)
GND (Black)	**GND**	Ground
SCL (White)	**A5**	I2C Clock
SDA (Orange)	**A4**	I2C Data
CSB (Red)	**3.3V**	Set CSB to 3.3V for I2C mode


VCC
GND
SCL
SDA
CSB
SDO
GY-BME 280
ANALOG IN
POWER
ICSP
UNO
Arduino
DIGITAL (PWM~)
RESET
C25B
U1
VCC B A GND
DI DE RE RO
C25B