Main() Declare Public Variables: CH13: BattV, CH14: RefTemp Minutes, Seconds, Temperature Str CH1: Frec Thies, EU WSpd CH2: (SE1) VWDIR, EU WDIR UNPA-UARG PI 29A/412+PIO+AM\_H CH3: (SE3) VBat In, EU VBat CH4: (SE4) Vlae\_In, EU\_lae\_In SOFT CSI/CR1000DIAGRAMA Main() CH5: (SE5) VIFV\_In, EU\_IFV\_In R.OLIVA v2b 11-03-2021 CH6: (SE6) Vo VAC, EU VAC Out CH7: (SE7) Vo\_IAC, EU\_IAC\_Out CH8: (SE8) V\_RPM, EU\_RPM CH9: (SE9) V\_IBAT, EU\_IBAT CH10: (SE10) VbatHalf, EU VBat12 CH11: (SE2) V ExtTemp, EU TEMP CH12: Status Inver (Modbus) CH15: Temp Inver (Modbus) CH16: Humed\_Inver (Modbus) Public MSDataV(8), MBRegs(16) Public MBCoils(2) as Boolean UNI CR1000 Program29A412\_Amilcar Herrera\_PIO v2b Datos: 1 equipo eólico Eolux 1kW 24 **Define Constants** 4 baterías 6V 390Ah Define Units for Public Variables 1 array paneles 200Wp 1 bombeo y control invernadero via Arduino Define UNPA\_Table (auto Allocate) ->DataInterval 1 min, 10 lapses ->Save to CF NL115 every N=1 min (900K) ->Sample,Avg RefTemp ->Min,Avg BattVoltage (12V) ->Sample of: Frec\_Thies,VWDIR,VBat\_In,VIFV\_In, Vo VAC, Vo IAC V RPM, V IBT, VbatHalf, V ExtTemp, Status Inver, Temp Inver, Humed Inver -> Avg, Max, min, Stdev of: EU WSpd, EU VWDIR, EU VBat, EU lae In, EU IFV In,EU VAC Out, EU IAC Out, EU RPM, EU IBAT, EU\_VBat12,EU\_TEMP WebPage Begin HTML\_instructions (or Sub), v2b: add Date WebPage End BeginProg Use Modbus TCP Port 502 ModbusSlave(502, 115200, 0, 1, MBRegs(), MBCoils(),2) 'Open COM232 for communications with Arduino 'SerialOpen (ComPort, BaudRate, Format, TXDelay, BufferSize) 'Format=2: implies E,8,1; 19200Baud, 0=TXdelay, 500=RingBuffer 'No CommsMode SerialOpen(ComRS232,19200,2,0,500) Scan(1,sec,1,0) PanelTemp(PanelTempC)-->CH14 Battery(BattV) -->CH13 PulseCount(Frec Thies) -->EU WSpd-->CH1 VoltSe(WDIR, 0-5V) -->EU WDIR-->CH2 VoltSe(VBat In, 0-5V)-->EU Vbat-->CH3 VoltSe(Vlae In,0-5V)-->EU lae In-->CH4 VoltSe(VIFV In,0-5V)-->EU IFV In-->CH5 VoltSe(Vo\_VAC,0-5V)-->EU\_VAC\_Out-->CH6 VoltSe(Vo IAC,0-5V)-->EU IAC Out-->CH7 VoltSe(V RPM,0-5V)-->EU RPM-->CH8 VoltSe(V IBat, 0-5V)-->EU IBAT (-100/+100A)-->CH9 VoltSe(VbatHalf,0-5V)-->EU VBat12-->CH10 VoltSe(V\_ExtTemp,0-5V)-->EU\_TEMP-->CH11 'Arduino Poll Modbus registers ' ModbusMaster (ResultCode, ComPort, BaudRate, ModbusAddr, Function, Variable, ' Start, Length, Tries, TimeOut, [ModbusOption]) 'Baud=19200, MBAddrr=1, Function=3 ReadHR, MSData() is the variable, 'StartAddr for Regs = 1 (Float) -'Read 3 Floats, make 3 tries, wait 100\*0.01s= 1 sec, '[modbusoption] = 2 Float ABCD (try, if not CDAB is 0) ModbusMaster (CommsResult(1), ComRS232, 19200, 1, 3, MSDataV(), 1, 3, 3, 100, 2) Alias MSDataV(1) = Temp Inver 'Temperature Invernadero reading -->CH15 Alias MSDataV(2) = Humed\_Inver 'Humidity Invernadero reading -->CH16 Alias MSDataV(3) = Status\_Inver 'Status Invernadero -->CH12 CallTable (UNPA Table)

loop: