Team 202 Block Diagram Carlos Chacon Cuesta, Miguel Chacon Cuesta, Wyatte Ricks, Lukas Severinghaus Interrupt Service Routines Main Loop Initialize System Update Off Change to Auto Change Timer Initialize Peripherals (Is timer > 0?) Set mode to timer Set mode to auto Set mode to off Yes Initialize System Reset Internal Variables Add 5 mins to timer Decrement timer Enable Interrupts Establish Communication Set servo to on ,-----, position Send temp, Interrupts Send data to ESP32 Enabled humidity, state Set fan to blow into enclosure Read temp sensor I2C Address: 0x60 I2C Address: 0x4c Update Set switch state to on Update Temp Variable Off Button Pressed Off Read Humidity Value Timer Button Pressed Change Timer I2C Address: 0x27 Functions Update Humidity Auto Button Pressed Change to Auto Variable Process Auto Parse Serial Process Timer Mode Command Set servo to off Set servo to off Temp/Humidity Timer < 0 position position high? Set mode mode byte? Yes Mode is Mode is Turn Off Set servo to off Set switch state to off Turn on "on" servo & Set switch state to off Fan I2C Address: 0x60 position Is timer byte? Process Auto Mode Process Timer Mode Set timer Set switch state to off Set switch state to on Set fan to vent enclosure I2C Address: 0x60 Set fan to blow into Set mode to Off Available?/ Command