void loop() { // put your main code here, to run repeatedly

while(1){

// -+-+-+-+-+-+-+-+-+-+- PRESET 1 (SHORT RANGE) MEASUREMENT -+-+-+-+-+-+-+-+-+-+- //

objectDetected = false; // Initialize object detected flag to false

ussc.ultrasonicCmd(0,numOfObj); // run preset 1 (short distance) burst+listen for 1 object

ussc.pullUltrasonicMeasResult(demoMode); // Pull Ultrasonic Measurement Result

for (byte i=0; i<numOfObj; i++){

distance = ussc.printUltrasonicMeasResult(0+(i\*3));

delay(commandDelay);

If(distance > minDistLim && distance < 11.2) // turn on DS1\_LED if object is above minDistLim {

ussc.toggleLEDs(HIGH,LOW,LOW);

Serial.print("P1 Obj");

Serial.print(i+1);

Serial.print(" Distance (m): ");

Serial.println(distance);

objectDetected = true;

}

}

// -+-+-+-+-+-+-+-+-+-+- PRESET 2 (LONG RANGE) MEASUREMENT -+-+-+-+-+-+-+-+-+-+- // if(objectDetected == false || alwaysLong == true) // If no preset 1 (short distance) measurement result, switch to Preset 2 B+L command { ussc.ultrasonicCmd(1,numOfObj); // run preset 2 (long distance) burst+listen for 1 object ussc.pullUltrasonicMeasResult(demoMode); // Get Ultrasonic Measurement Result for (byte i=0; i minDistLim) // turn on DS1\_LED and F\_DIAG\_LED if object is within 1m { ussc.toggleLEDs(HIGH,LOW,LOW); Serial.print("P2 Obj"); Serial.print(i+1); Serial.print(" Distance (m): "); Serial.println(distance); objectDetected = true; } else if (distance < 3 && distance >= 1) // turn on DS1\_LED and F\_DIAG\_LED if object is within 3m { ussc.toggleLEDs(HIGH,HIGH,LOW); Serial.print("P2 Obj"); Serial.print(i+1); Serial.print(" Distance (m): "); Serial.println(distance); objectDetected = true; } Energia Example – GetDistance.ino www.ti.com 16 SLAA730A–February 2017–Revised August 2017 Submit Documentation Feedback Copyright © 2017, Texas Instruments Incorporated PGA460 Software Development Guide else if (distance >= 3 && distance < 11.2) // turn on DS1\_LED, F\_DIAG\_LED, and V\_DIAG\_LED if object is greater than 3m { ussc.toggleLEDs(HIGH,HIGH,HIGH); Serial.print("P2 Obj"); Serial.print(i+1); Serial.print(" Distance (m): "); Serial.println(distance); objectDetected = true; } else if (distance == 0) // turn off all LEDs if no object detected { ussc.toggleLEDs(LOW,LOW,LOW); //Serial.print("Error reading measurement results..."); //Serial.println(distance); } else //(distance > 11.2 && distance < minDistLim) // turn off all LEDs if no object detected or below minimum distance limit { if (i == numOfObj-1 && objectDetected == false) { ussc.toggleLEDs(LOW,LOW,LOW); Serial.println("No object..."); } } } } // -+-+-+-+-+-+-+-+-+-+- STATUS -+-+-+-+-+-+-+-+-+-+- // digitalWrite(GREEN\_LED, !digitalRead(GREEN\_LED)); //toggle green LED after each sequence digitalWrite(RED\_LED, !digitalRead(GREEN\_LED)); //toggle red LED after each sequence // -+-+-+-+-+-+-+-+-+-+- SERIAL MONITORING -+-+-+-+-+-+-+-+-+-+- // // Check for serial character at COM terminal while (Serial.available()) { char inChar = (char)Serial.read(); // get the new byte // if the incoming character is a 'q', set a flag, stop the main loop, and rerun initialization if (inChar == 'q'){stringComplete = true; initPGA460();} } } }