

Today ~~a general~~, there is an increasing and widespread need for robots ~~assisting different to assist~~ ~~with a range of~~ human activities ~~goes up~~. The goal of the present ~~project study~~ is ~~to~~ develop a general-purpose ~~frame-work~~ ~~framework~~, which provides ~~s~~ facilities for attaching and fitting different ~~kindstypes~~ of sensors and actuators. ~~These general purpose~~ ~~This~~ framework ~~gives provides an~~ easy way ~~to to~~ turn general-purpose robots ~~with a into~~ special-function ~~oneones~~. The ~~final~~ ~~concrete~~ ~~ultimate~~ goal of ~~the~~ present ~~study development~~ is to ~~developing the~~ ~~develop an~~ autonomous robot ~~ie to assisting clinically~~ ~~clinical~~ patients and ~~the or elderly person's~~. The attached sensors ~~collecting collect~~ information ~~using from~~ the ~~surrounding worlds~~ ~~robot's surroundings~~ and send it to ~~an~~ FPGA board. ~~The FPGA board will, which~~ controls the ~~sensor's~~ ~~sensors~~ and ~~processed~~ ~~processes~~ the measured values. ~~With Using~~ the measured data, the FPGA board can control ~~the~~ robot's movement. The ~~chosen~~ implementation platform ~~chosen was a~~ Nexys 3 Spartan-6 FPGA ~~Board board~~. ~~The sensors (light~~ ~~Light~~, humidity, ~~and~~ temperature) ~~attaching sensors~~ ~~are attached~~ to the board, and the ~~process~~ ~~processed~~ values ~~come are shown~~ on ~~graphics~~ ~~a graphical~~ display. Finally, the robots can ~~communicating to~~ ~~communicate with~~ each other with the ~~Digilent PmodRF2-IEEE 802.15 RF Transceiver~~, ~~transceiver~~. Fig. 1 ~~showed~~ ~~shows~~ the ~~scheme~~ ~~design~~ of the robot.

**Comment [A1]:** Prepositional phrases should be set off from the main clause using a comma.

**Comment [A2]:** Some adjectives stand for a group or people who share the same characteristic so they function as nouns. In such cases, "the" is placed before such words and a plural verb is used.

**Comment [A3]:** If the first letter of a word has a vowel sound, you use "an"; if the first letter has a consonant sound, you use "a." Pronounce the word and select the correct article.

The project ~~consisting in~~ ~~comprises~~ two ~~major main~~ components—~~the~~ robot, and ~~a~~ cell phone. ~~Between a~~ ~~The~~ robot and ~~the~~ cell phone ~~communications~~ ~~communicate is gotten~~ using Bluetooth ~~module's~~. The software ~~is implemented~~ ~~was done through in the~~ Verilog ~~hard-ware~~ ~~hardware~~ description language and ~~java (android~~ ~~the Java (Android SDK) program~~) ~~programming~~ language. The ~~PmodOLED's controller~~ ~~code were~~ ~~for controlling the Digilent Pmod OLED screen is~~ written ~~on in the~~ C programming language and runs ~~in the on a~~ PIC18F45K20 micro-controller.

**Comment [A4]:** To use the colon correctly, you must make sure that sentence that comes before the colon is a complete, grammatical sentence.

~~Robot~~ ~~The robot~~ is equipped with a ~~Nexys3~~ ~~Nexys 3~~ FPGA ~~Board with XILINX SPARTAN~~ ~~board based on~~ ~~a Xilinx Spartan-6~~ ~~FPGA~~, which controls ~~a the~~ attached peripheral devices. It has ~~a~~ two analog

**Comment [A5]:** In American English, that is used to introduce a restrictive clause and which a nonrestrictive clause.

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~~sensor; sensors:~~ a light “sensor” (photo-resistor) and a humidity sensor ([Samyoung SYH-2R](#)),  
~~PmodAD1 converted~~). A [Digilent Pmod AD1](#) converts the analog ~~signal's~~ signals into digital ~~value's~~  
and ~~than~~ values for processing by the FPGA ~~can process the~~ measured values. A DS18S20 digital  
thermometer ~~is used for~~ measuring the temperature. ~~It has a~~ which is accurate to within 0.5C  
accuracy 5°C between ~~[-10°C to and~~ +85°C. The FPGA ~~board~~ collects the measured values and;  
~~then~~ evaluates ~~these~~. ~~Using a~~ them. The robot uses a [Nuvoton ISD1760](#) voice recording and playback  
device ~~the robot~~ to play back ~~template~~ voices ~~template~~ accordingly to the ~~based on~~ measuring  
~~measured~~ values. ~~A PIC18F45K20 micro-controller~~ The microcontroller communicates with the FPGA  
board and ~~handle~~ PmodOLED handles the display, which ~~displaying evaluated~~ shows the measured  
humidity, and light ~~level~~ information. ~~What is more it include an~~ It also includes a [Rayson BTM-222](#)  
Bluetooth module. ~~It can communicate using~~ enabling it to communicate with a cell phone  
(~~running the Android operating system~~). Based on the ~~phone their is a android operation system~~)  
and according on a received information ~~received~~ from the cell phone, ~~it instructs~~ the FPGA ~~will be~~  
~~handles the movements of~~ to activate the motors ~~accordingly~~.

**Comment [A6]:** A minus sign (-) instead of a hyphen (-) can should be used to indicate negative values.