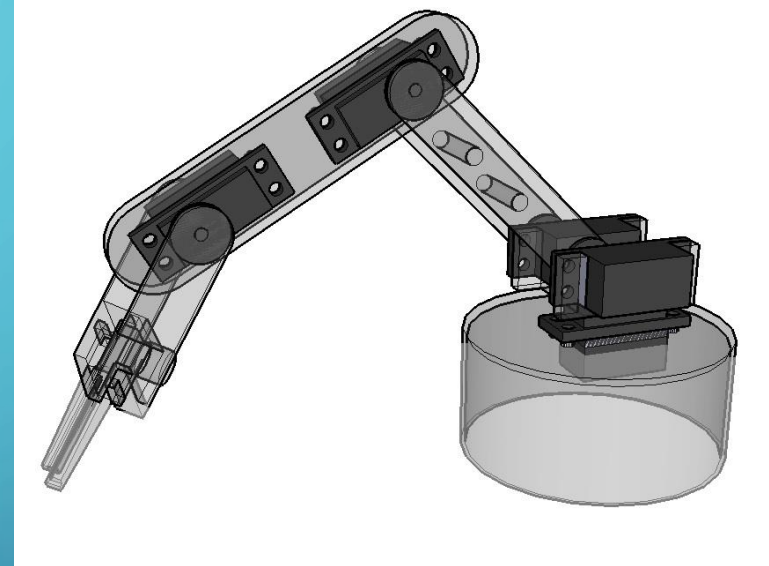


WIRELESSLY CONTROLLED ROBOTIC CLAW

GROUP -3



DIBYOJYOTI MUKHERJEE

PREETHAM REDDY

VENKAT RAMAN

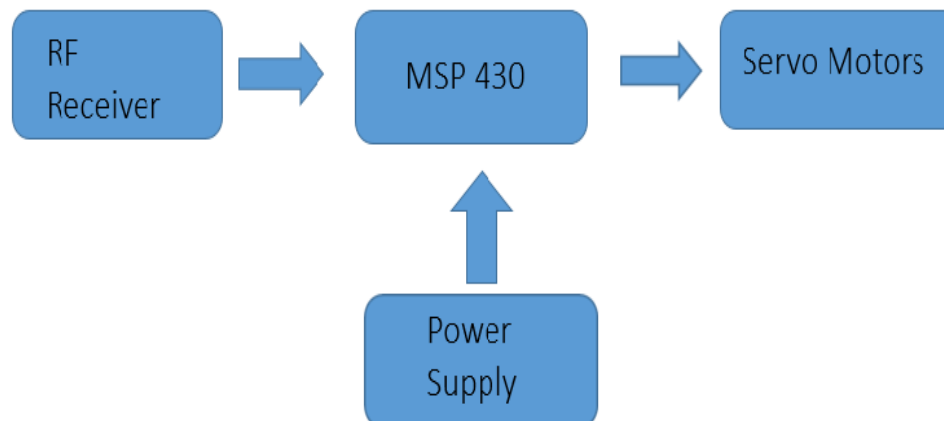
KOUSHIK REDDY ROKKAM

BLOCK DIAGRAM

Transmitter



Receiver



LIST OF THE COMPONENTS USED

- Flex Sensors
- Variable Resistors used for Voltage Divider Circuit
- MSP 430 Microcontroller
- RF Transceiver
- Servos for the Robot Claw
- Power supply(5V)

OVERALL STATUS

- All components are acquired and tested.
- Testing of flex sensors was successful and are ready to be interfaced with the Analog to Digital Converter and into the MSP.
- Voltage Divider Circuit was made onto the PCB (Printed Circuit Board).
- MSP was run with various programs and found to be working efficiently.
- Wireless RF transceiver is yet to be interfaced and tested.
- Servos were integrated and found to be running on a sufficient torque ≈ 2 kg/cm.

CONSTRUCTION OF THE ROBOTIC CLAW

- We have already started making the Robotic Claw and we are using a mixture of hard cardboard and Lego Pieces.

PROBLEMS WE ARE FACING

- We are finding it difficult to implement the MSP 430F 5529 with our glove as it is too big for the glove hand and also because we have to add extra transceiver(UART).

SOLUTION TO THE PROBLEM

- We have decided to shift to low power **MSP430F2274** chip.
- We have ordered **EZ430-RF2500** MSP430 which will hopefully solve our problems.

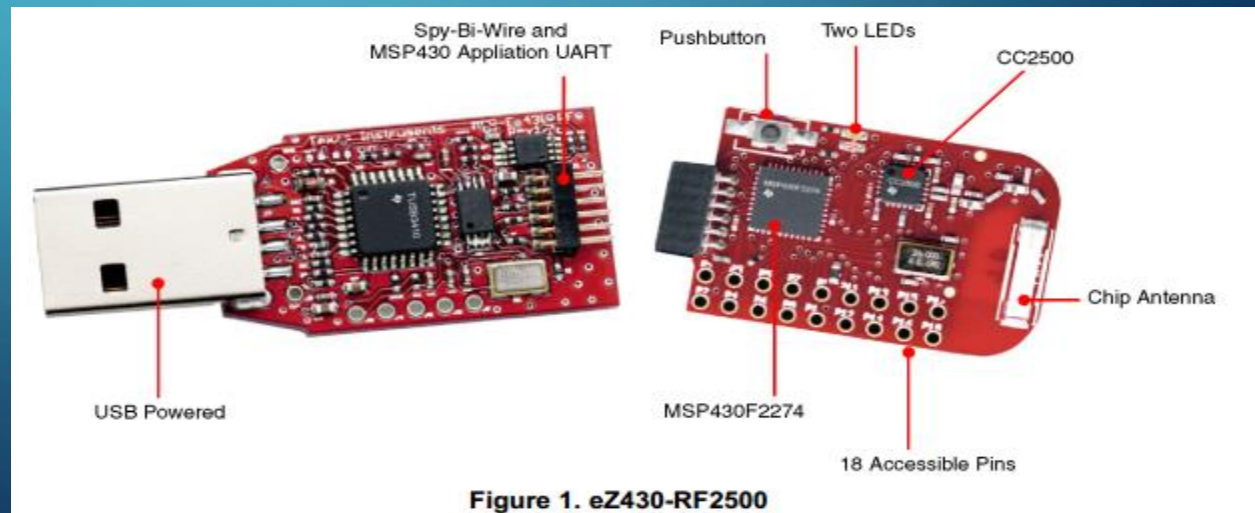


Figure 1. eZ430-RF2500

EZ430-RF2500 FEATURES

- • USB debugging and programming interface featuring a driverless installation and application
- backchannel
- 21 available development pins
- Highly integrated, ultra-low-power MSP430 MCU with 16-MHz performance
- Two general-purpose digital I/O pins connected to green and red LEDs for visual feedback
- Interruptible push button for user feedback

TASK DIVISION

- Preetham – PCB Designing and Hardware Assembly
- Venkat-Wireless Transceiver Interfacing
- Koushik- Microcontroller Routines and Interfacing
- Dibyojyoti – Sensor Testing and Interfacing



Thank You