REPORT ON ALL THE JOURNALS

1) A Robotic System for Autonomous Medication and Water Delivery

REFER 1.PDF Attached in the Mail

OBJECTIVE: Robotic delivery of pills and water to avoid -
1)Medication adherence and hydration for
A. Elderly
B. Blind
C. People with disability
D. Alzheimer's
E. Autistic people

PROBLEM STATEMENT:
1) The robot needs to acquire and prepare the pills and water.(pill dispenser)
2) The robot needs to locate and move next to the user with the pills and water.(Stocking & moving Robot)

RELTED WORK :
1. European FP7 project called "CompanionAble", which is a socially assistive home robot companion for older adults with mild cognitive impairment that live alone
2. An intelligent medicine case, iMec, has been developed that uses computational models, a network of embedded sensors, and a database server to determine if an older adult has picked up the correct medicine from its storage space.
3. As far as delivery robots, [describes a wheel chair mounted robotic arm (WMRA) with an attached tray where the arm places retrieved objects.

SYSTEM CONFIGURATION :
1. Mobile Robot
2. Medication Station
3. Human/Robot Communication Channel

EXPERIMENT: Robotic detection of the environment to track.

LINK: https://smartech.gatech.edu/bitstream/handle/1853/45009/MedicationDeliveryTechReport.pdf?sequence=1&isAllowed=y

2) Medical Assistive Robot

REFER 2.PDF attached in the mail
Special Issue of First International Conference on Advancements in Management, Engineering and Technology (ICAMET 2020) Medical Assistive Robot (MAR)

OBJECTIVE:
1. Spending quality time with patients
2. Assurance for safe use of correct medications with prescribed quantity(Basically increasing the accuracy)

INSPIRED JOURNALS:
1. WissamAntoun, Ali Abdo ,Suleiman AlYaman, Abdallah Kassem, Mustapha Hamad and Chady El-Moucary(2018) : Android Application , Bluetooth.
2. Ying-Wen Bai and Ting-HsuanKuo (2016): proposed a system that reminds patients about their pill. Bluetooth bracelet to cooperate with the reminder machine.

3. WissamAntoun, Ali Abdo and Suleiman AlYaman and Abdallah Kassem, Mustapha Hamad and ChadyEl-Moucary; Presents a concept Smart Medication Dispenser (SMD)

WissamAntoun, Ali Abdo and Suleiman AlYaman and Abdallah Kassem, Mustapha Hamad and ChadyEl-Moucary: Presents a concept Smart Medication Dispenser (SMD).

SYSTEM CONFIGURATION:
HARDWARE
1. Ir sensor
2. H bridge
3. RFID reader and tag
4. Lead screw
5. Pill storage wheel
6. Suction pump
7. Arduino mega 2560

SOFTWARE:
1. ARDUINO IDE

LINK: https://rspsciencehub.com/pdf_1405_1b9b149b2d622ace45d58a7a466f7783.html

3) Robotic Pill Dispenser

REFER 3.pdf attached in the mail

LINK: https://d1wqtxts1xzle7.cloudfront.net/78951871/c096e53c227dda56e6ffe4edacc7f278f749-with-cover-page-v2.pdf?Expires=1666407893&Signature=gYWfLRIkqjHNPae67pglyS71QVK~4kDLu7NXQrlnXOxFIrI2a3EdbubaDpjG0t~f08CNtH3iVEhX00LTxCla21Bd6gdebvu26JNSobHdl4Dje9zv-ivCT7Wu65eiAP123gLkuaaWGKoEAe2qADLkhfOFxoaHjwnRD-jkH2ZhBqjN6QNfHeFTIyVdA0~YNVtd3pPDH5b7co~7wfNzpcos9U6MrAofKx3KKPtUYDQLxKWAenDCLD9jR6cECuKOeIcKGzmEwMDNZjgF-WrPvNWSKK57S1imLn4hFBAv-V7PezWDri4QHiy6dC-CoUi2jMmB8KAqlDhD5YcjFUc26XcQBQ__&Key-Pair-Id=APKAJLOHF5GGSLRBV4ZA

4) Automatic Pill Dispenser Robot

REFER 4.pdf attached in the mail

LINK: http://ezeichen.com/gallery/1252.pdf

5) Drug Dispenser Replenishment Optimization via Mixed Integer Programming in Central Fill Pharmacy Systems

REFER 5.pdf attached in the mail

LINK: https://www.researchgate.net/profile/Haifeng-Wang-25/publication/319688945_Drug_Dispenser_Replenishment_Optimization_via_Mixed_Integer_Programming_in_Central_Fill_Pharmacy_Systems/links/59b98fad458515bb9c48a302/Drug-Dispenser-Replenishment-Optimization-via-Mixed-Integer-Programming-in-Central-Fill-Pharmacy-Systems.pdf

SITES:
https://create.arduino.cc/projecthub/makersupv/smart-pill-dispenser-07a43f