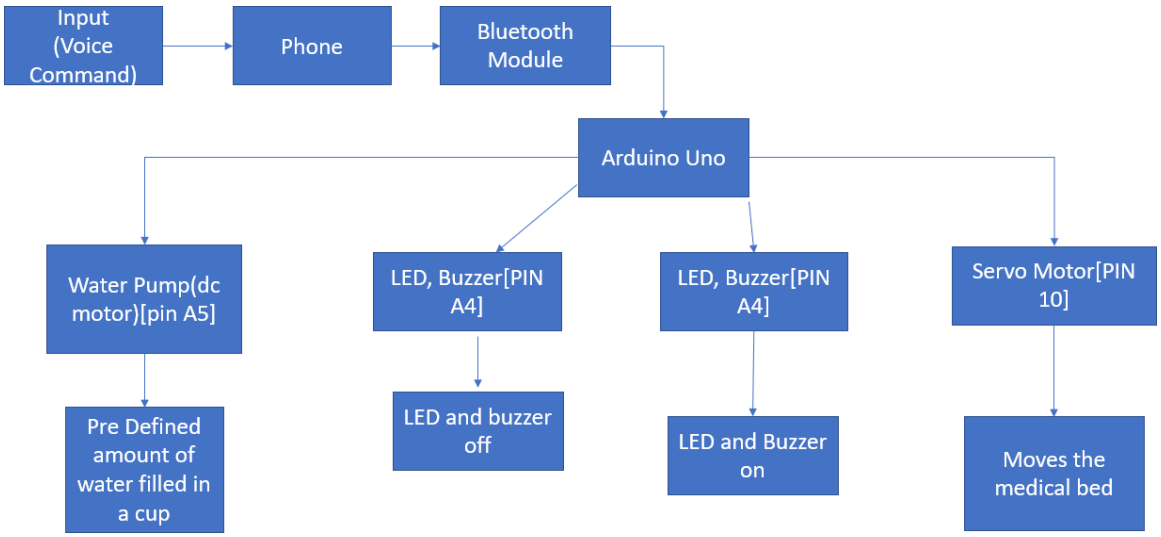
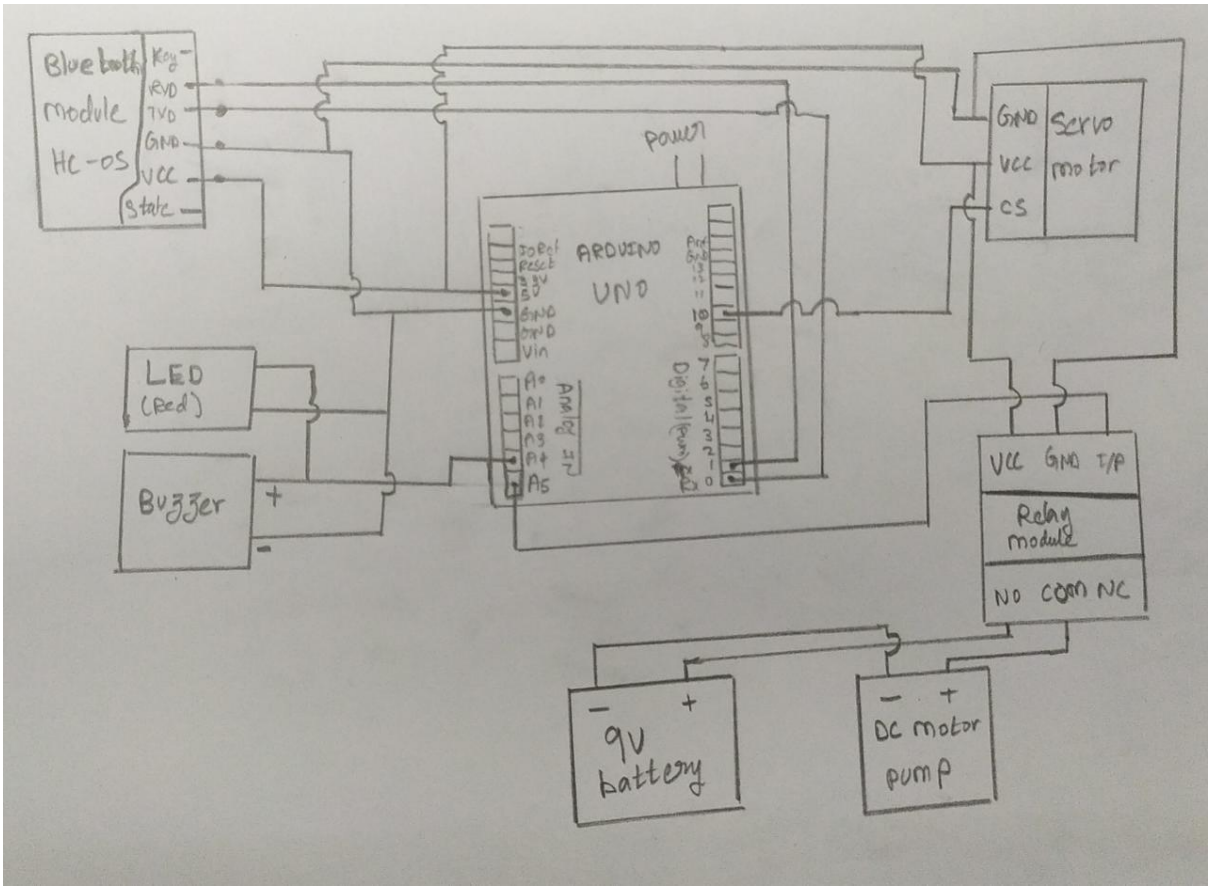
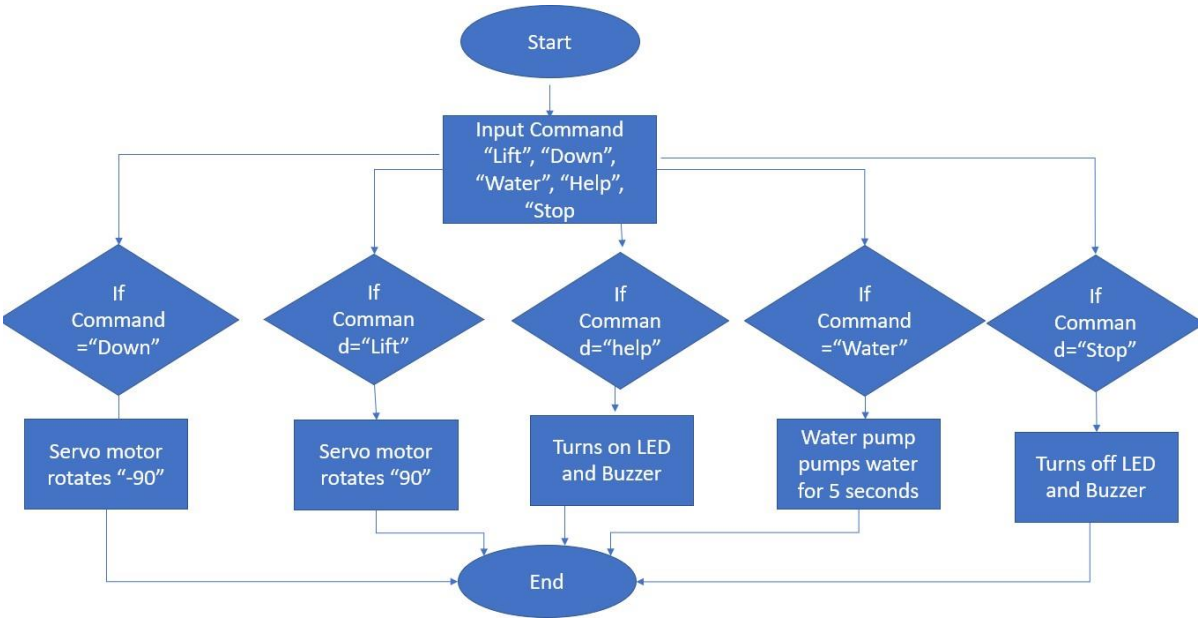
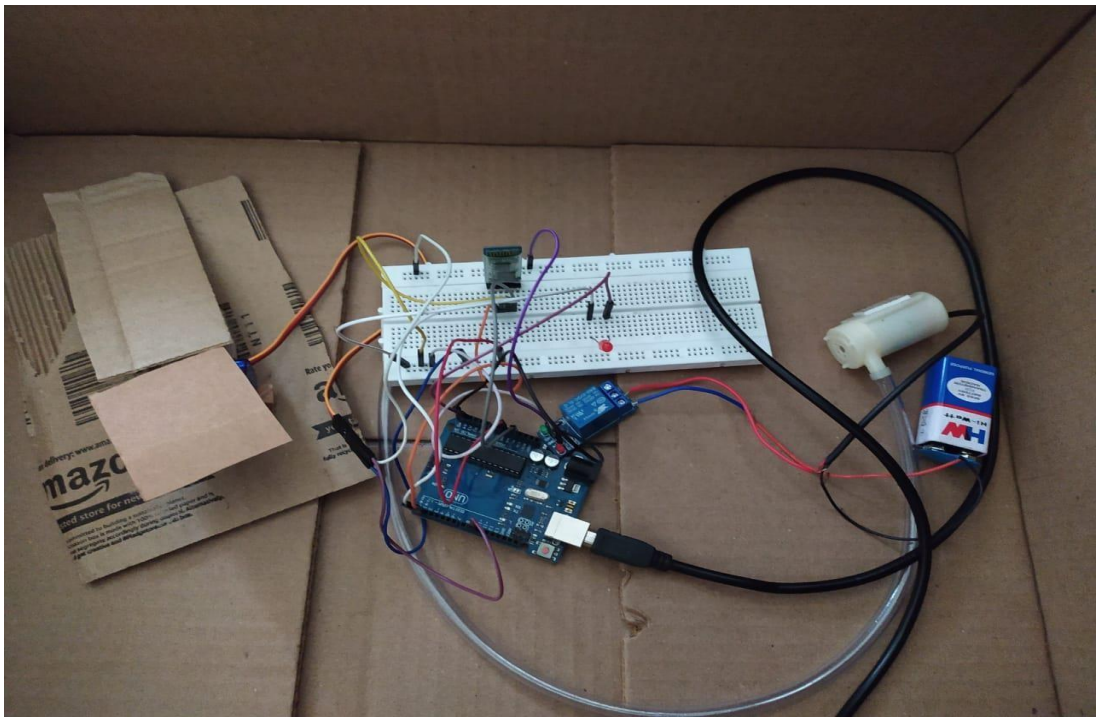
Hardware Flow Chart:



Hardware block diagram:



Software Flow Chart: