

## **Remember It**

“Helping you remember, every time.”

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### **Intro:**

*Remember It* hopes to support patients in “remembering” to take their medicine prescriptions at the right time and right dose. Taking the form of a little robot assistant holding a plate of the specific medication and providing water to take it with, we make it easy and accessible for patients to take in their prescribed pills and tablets, prioritizing and maintaining their safety and health.

### **Problem:**

Medical adherence is an unspoken contributor of prolonged ailments and increased risk of death. More than half of medications prescribed for people with chronic diseases are not taken as directed. Many factors contribute to this lack of medical adherence, financial costs and accessibility to name two. Prescribed medicines are effective in combating the various chronic illnesses patients battle with, but, because more than half of patients don’t follow their prescription procedure and schedules, the full benefits of these medicines are not realized. This often leads to the treatments doing more harm than good. For example, with cardiovascular disease, if prescribed medicines are not taken as instructed, the blood pressure of the patient is unable to be kept in check, causing severe repercussions. This could lead to heart disease, stroke, kidney failure, and mortality. In fact, 125,000 Americans die annually due to poor medication adherence. Not only does this impact different patients’ communities deeply in various ways, it also costs the healthcare system more than 300 billion dollars.

### **Loneliness & Social Isolation**

One in three adults feel lonely in the United States. In fact, many people have coined the term ‘Loneliness Pandemic’ to describe our current societies. This points to the apparent shift from social connections in communities in real life to being distances away on the Internet. Loneliness and Social Isolation has been proven to increase risks for severe illnesses and cause long-term health implications, especially in regards to mental health. This would impact, specifically, patients hospitalized in health centers or at home. Due to their illnesses, staying put is the best solution to keep them safe and cared for, while protecting those nearest to them as well. According to statistics, patients with loneliness or social isolation have 29% higher risk of heart disease, 32% increased risk of stroke, and increased the risk of developing dementia in older adults by 50%.

## **Vulnerability**

Another aspect of the challenge that lies within medicine intake is the vulnerability of patients. In the US, 67% of elderly people take more than five medications. These patients often have trouble keeping up with the specific prescription of each, or, due to their mistrust and fear of machinery and non-traditional approaches to care, put it off until the next doctor's appointment. Many seniors have cognitive impairments of some sort and are often unaware of their day to day duties and responsibilities. Vulnerable to errors, it is so important for these patients to get assistance in performing their healthcare duties of protecting their body and keeping it strong. Other vulnerabilities lie in ethnic backgrounds. Ethnic minorities have a history of having more medical errors than their other counterparts. Healthcare systems in lower economically developed countries don't provide much or any support to their patients regarding medicinal intake. The consequences of this are drastic.

And that's why.....

## **Solution:**

The *Remember It* bot is going to come to your rescue! First, it will be treating your infected area with appropriate treatments, then it will help by getting patients to adhere with their prescription rules, and finally it will show you the outcomes of your actions.... Equipped with a water dispensing tool, a medicine reminder, and a voice chatbot, this bot will have everything you need at night.

## **Impact:**

This bot has far-reaching power. And by completing its various roles and tasks successfully, it put the

Some of *Remember It's* next steps include:

1. **Motion Tracking:** The bot will be equipped with motion tracking to enhance its functionality, allowing it to better detect patient movements and respond accordingly.
2. **Improved Medicine Dispenser:** The dispenser will be upgraded to not only deliver medication more effectively but also to track when medication supplies are running low and automatically order refills when necessary.
3. **SOS System:** An emergency SOS system will be integrated into the bot, enabling it to alert caregivers or medical professionals in case of an emergency, adding an extra layer of safety for patients.

These advancements will improve the bot's efficiency, ensure continuous care, and provide essential support in critical situations.