



**\*Please make a copy of this document and include this in your GitHub repository for your submission, using the tag #AndroidDevChallenge\***

**Tell us what your idea is.**

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*Describe in 250 words what the feature or service will do and how you'll use Machine Learning to push the bar:*

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### **Social Buddy for Elderly People**

12 million people live alone in the United States. About 125,000 people die each year as a result of complications related to therapy compliance, having too many medications that cause confusion, or people who forget their medicine, which costs the country approximately \$100 - \$300 billion annually. Not only in the US, but worldwide countries are facing this problem.

With the help of volunteers, we are developing a (robot) device that has empathetic behavior with voice, eye expressions, animations etc. This allows the robot to connect with the user by displaying different emotions. This interface stimulates and support people with medical compliance and preventing confusion.

Especially for the elderly, a Google hub on the table is too passive. It would be much better if the hub makes a connection with the user and initiates a conversation. We believe this can be arranged by developing an app on the android tablet device. Currently, we are using a tablet with integrated far-field microphones, camera and speakers.

This enables the device to detect a person in the room. When it is time to take the medication, the device will automatically advise the person to take it and allows him to respond by voice or gesture.

We would like to integrate the application with "live caption" and "on-device machine learning". By developing these features, older people will be more facilitated to communicate with the device, even in noisy environment and their privacy will be ensured.



**Tell us how you plan on bringing it to life.**

*Describe where your project is, how you could use Google's help in the endeavor, and how you plan on using On-Device ML technology to bring the concept to life. The best submissions have a great idea combined with a concrete path of where you plan on going, which should include:*

- (1) any potential sample code you've already written,
- (2) a list of the ways you could use Google's help,
- (3) as well as the timeline on how you plan on bringing it to life by May 1, 2020.

We are building the application with Flutter, ML-kit and Flare for the animations.

At the moment, the tablet is able to:

- Detect the person and combine with agenda triggers (ML library)
- Show images based on used words
- Show emotions (eyes) based on reactions
- Confirmation or reaction by voice or touch (ML library)
- Repeat on a later time

With "live caption" and "on-device machine learning", we want to be able to build a device (buddy) to assist the elderly. We would like to have support with the integration with "Google Assist" and live caption while maintaining privacy by design.

**The development scheme:**

January: Alpha version

February: Beta version

March: Finished



## Tell us about you.

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A great idea is just one part of the equation; we also want to learn a bit more about you. Share with us some of your other projects so we can get an idea of how we can assist you with your project.

My name is Jack Jagt. I am a Dutch IT-entrepreneur and business developer throughout my whole career. I have built a European company in remote monitoring computer systems and was always involved with business innovation. The last 3 years, I have been mainly inspired by AI development. Since last year, I have been busy with developing and building my own social robot. With the support of social entrepreneurs in welfare, healthcare, educational environments, freelance developer and IT architect I have already been able to develop the first prototype.

I gladly expand my team with Google's help.

## Next steps.

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- Be sure to include this cover letter in your GitHub repository
- Your GitHub repository should be tagged #AndroidDevChallenge
- Don't forget to include other items in your GitHub repository to help us evaluate your submission; you can include prior projects you've worked on, sample code you've already built for this project, or anything else you think could be helpful in evaluating your concept and your ability to build it
- [\*\*The final step is to fill out this form to officially submit your proposal.\*\*](#)