To: Manager X
From: Jason Alexander and Vlad Satchek
Subject: Assessment of Python 3 Based on Programming Tasks
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We found that Python 3 was not as convenient for basic tasks as we had hoped, but we believe it would still work well to create a large-scale hardware system. One issue with Python we found was that its dependency structure, if you were not following a very set way that Python wanted you to, was difficult to work your way around to get all of the pieces to fit together in a codebase. We also found that Python did not always handle things well, like parsing JSON streams. We found that with Python's versioning differences it could cause things to break, so we had to be extra careful about that. However, besides small annoyances like these Python was mostly up for the task of handling basic input/output in an understandable and easily code-able way. We were able to translate specifications from our mind into the code without too much friction and with a plethora of libraries available to do so for most use-cases. When the specification of what we should do did not fit a function available in the libraries that Python builds in (such as parsing JSON) it usually had some functionality hidden deeper in that library that still allows you to build on the library and create the functionality that you need easily. By using Python idiomatically, you can solve many simple use cases (such as the GUI and TCP programs that we worked on). It sometimes feels as if you are fighting with the language when writing functionality that does not fall into those simple use-cases or when you want to do something the designers of the language did not intend. However, we believe that with creativity and good use of code design, Python will be able to be used for a large-scale project.