Hi. Welcome to the repo. To run the code, follow the steps listed below:

1. “ramjet\_main.m” file generates all the area profiles and other requirements for the jet engines with inlet mach number of 2.75 and 3.25. Running this, there will be 2 files created: “Area\_profile\_min.mat” and “Area\_profile\_max.mat” which are the info for 2.75 and 3.25 mach respectively. You can change the phi, design of the length and other variables to mess with the engine. There are already 2 files uploaded. So if u like the engine shown in “readme.md”, then just run the “final\_analysis.m”.
2. “final\_analysis.m” file analyzes the engine designed in “ramjet\_main.m” for various incoming mach numbers. It does a case study for both 2.75 and 3.25 incoming mach numbers. The final decision on which engine to choose depends upon you. Of course, we picked an engine shown in the readme.md file.
3. “more\_analysis.m” You don’t need to run this file. This was used for varying multiple parameters of the engine such as phi, length of inlet, diffuser exit mach number, combustor exit mach number etc. to design the engine. If interested, feel free to take a look.