Assignment ORBDSGN-11, AE4-878 Mission Geometry and Orbit Design

Quirijn B. van Woerkom, studentnr. 4663861. Estimated time spent: 37 hours

April 14, 2021

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Code

The following Python 3.8 code was used:

```
# −∗− coding: utf−8 −∗−
"""
Created on Wed Apr 14 18:40:00 2021

@author: Quirijn B. van Woerkom
Code for Phase 2 of AE4889 Special Topics in Astrodynamics
"""
###### Imports ######
import numpy as np
import scipy as sp
from matplotlib import pyplot as plt
import time


###### Constants ######
```

```
m_S = 1.9891e30  # kg, mass of the Sun
m_E = 6.0477e24  # kg, mass of the Earth + Moon system
AU = 149597870.7e3  # m, astronomical unit (average distance Earth-Sun)
sigma_star = 1.53e-3  # kg/m^2, critical solar-sail loading parameter
```