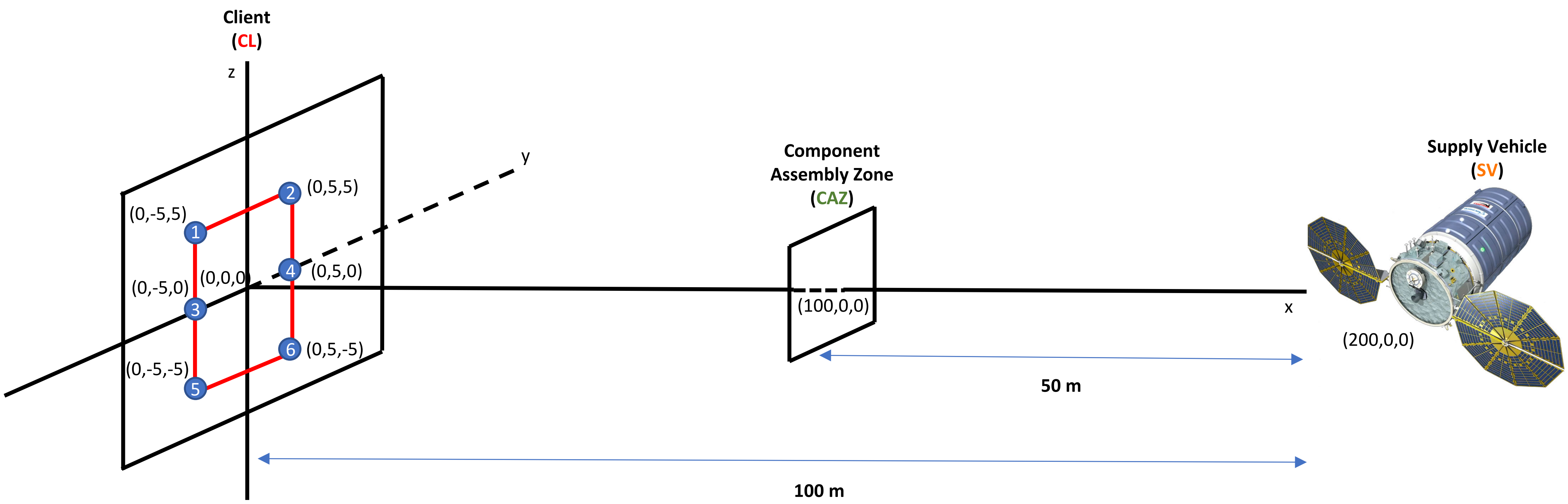

Case 1 (No component assembly)

SV to Client = propellant consumed
Client to SV = propellant consumed
Total propellant consumed = ?
Total time of flight = ?

Case 2 (Two component assembly)

SV to CAZ = propellant consumed
CAZ to SV = propellant consumed
SV to CAZ = propellant consumed
CAZ to Client = propellant consumed
Client to SV = propellant consumed
Total propellant consumed = ?
Total time of flight = ?

Case 3 (Three component assembly)

SV to CAZ = propellant consumed
CAZ to SV = propellant consumed
SV to CAZ = propellant consumed
CAZ to SV = propellant consumed
SV to CAZ = propellant consumed
CAZ to Client = propellant consumed
Client to SV = propellant consumed
Total propellant consumed = ?
Total time of flight = ?

Assumptions: (for now)

- CRTBP dynamics
- No thruster pointing constraints
- 6 equal mass pieces (15 kg each)
- Assume pieces are transported to the origin of the **Client**
- Order doesn't matter (i.e. assume agent is refueled at SV after each trip back from the client)
- When transporting component assembly, assume agents is attached to center of mass of assembly (no rotation, translation only)
- If needed, allow for different transfer times for different sized configurations (i.e. takes longer to move heavier spacecraft).

Kartik's algorithm will determine the fuel-optimal sequence. That is, transport all singles pieces, **OR** transport 3 x two-piece array, **OR** 2 x three-piece array, **OR** 2 x two-piece array and 2 x single-piece, **OR** 1 x three-piece array, 1 x two-piece array and 1 x one-piece etc.

Could also look at the time-optimal sequence.