Agile Trajectory Generation for Tensile Perching with Aerial Robots

Progress Update

- Returned to PyBullet utilising demo trajectory
  - Repackaged the C++ Bullet Engine to get the joint type that I wanted.
  - Changed to dimensions/weights used in the previous experiment
  - Demo
  - Currently with 25 segments - looks reasonably realistic and works quite well.
  - I can collect data with 100 segments but the graphics don't display well and cause a lot of lag.
  - But works well with GUI disabled for training purposes.

Overall Plans

- Drone Dynamics Model (25th Feb) (1/4 Weeks)
  - Towards the end of this when I had originally planned.
  - Will require refinement with further dynamics data when available.
- Demonstration Data Collection (10th March) - main item I have to discuss today.
- Learning from Demonstrations Model (21st April)

Plans Until Next

- Over the next two weeks until Exam Break (8th March - 23rd March)
    - Start intergrating existing demonstration data algorithms along with the analytical solutions previously calculated to learn from this model.

Questions

- Demonstration Data Collection.