## ME 115(b): Problem Set #5 (Due May 14, 2014)

**Problem 1:** Problem 5(a) in Chapt. 5 of MLS.

**Problem 2:** Problem 7 in Chapt. 5 of MLS.

**Problem 3:** Problem 8(c) in Chapt. 5 of MLS.

**Problem 4:** Problem 9 in Chapt. 5 of MLS.

**Problem 5:** For the grasp pictured below, assume a point contact with friction model, where  $\mu = \tan 30^{\circ}$ .

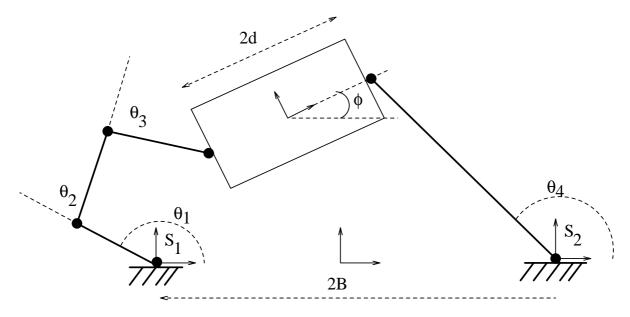


Figure 1: Two Fingered Grasp

- 1. Is this grasp Force Closure?
- 2. Calculate the grasp constraint equations. Is this grasp manipulable?