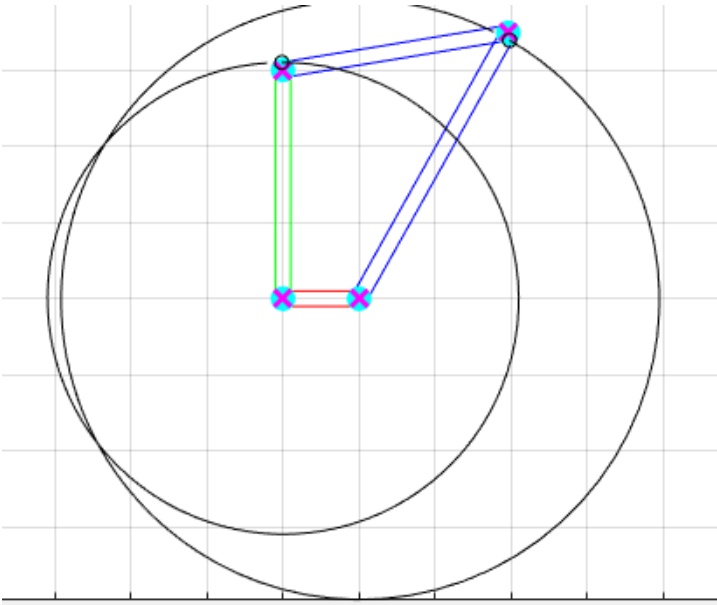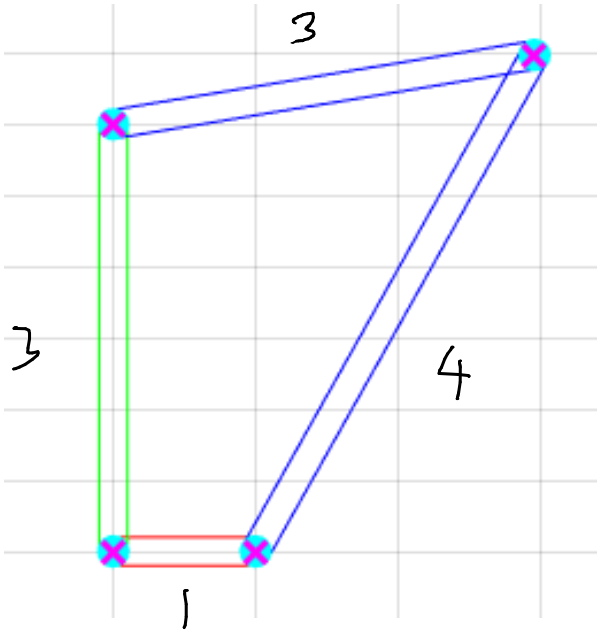# Computational Linkage Design
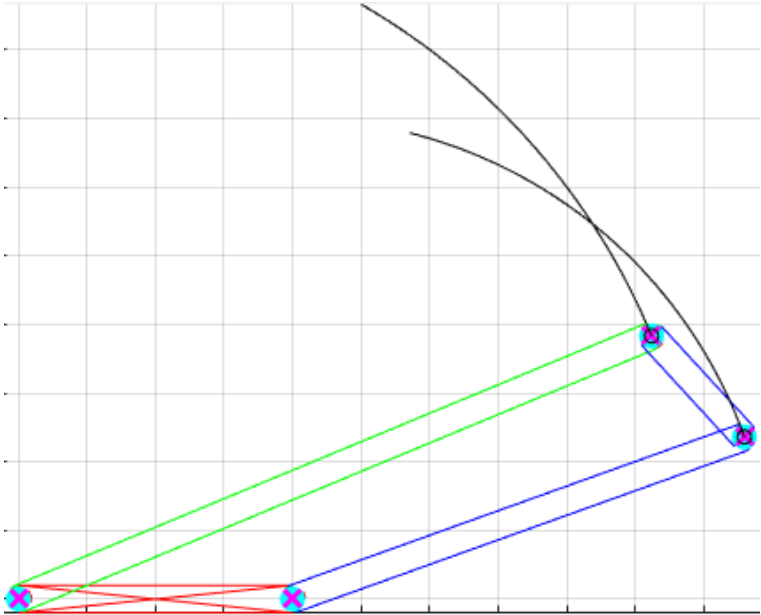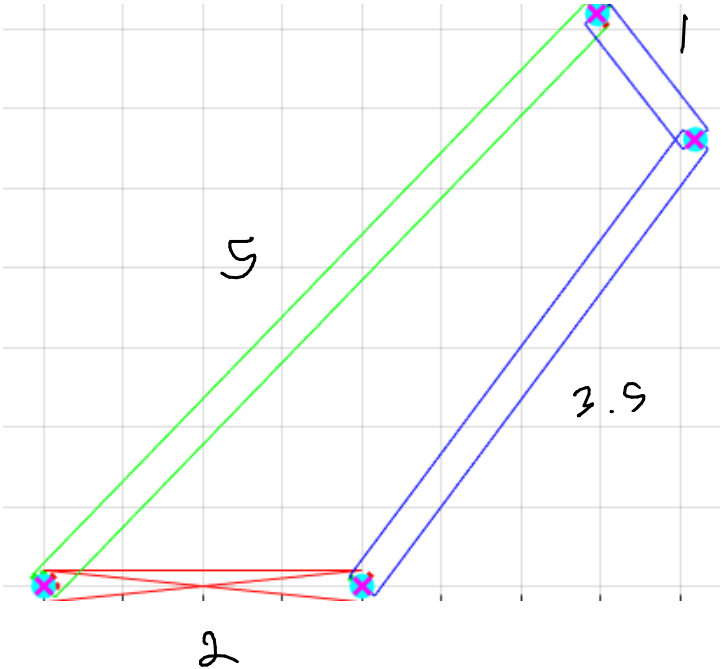## MATLAB

March 26, 2022

Implementation detail

Green - driver
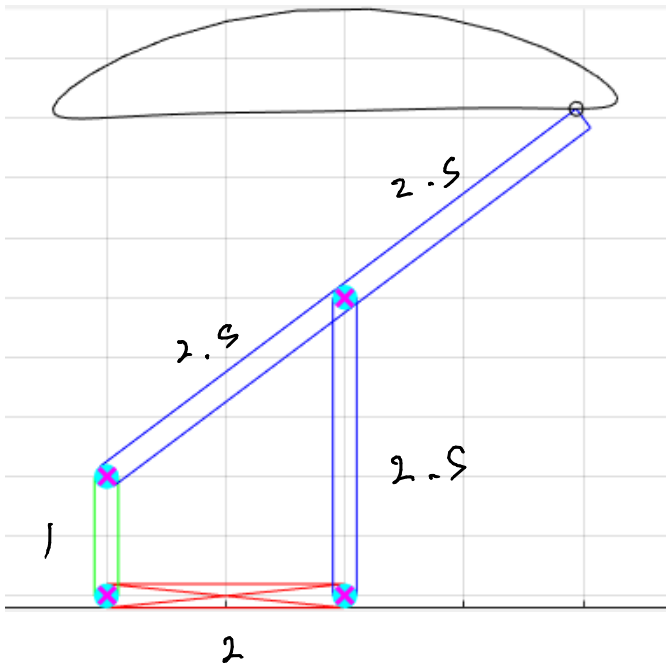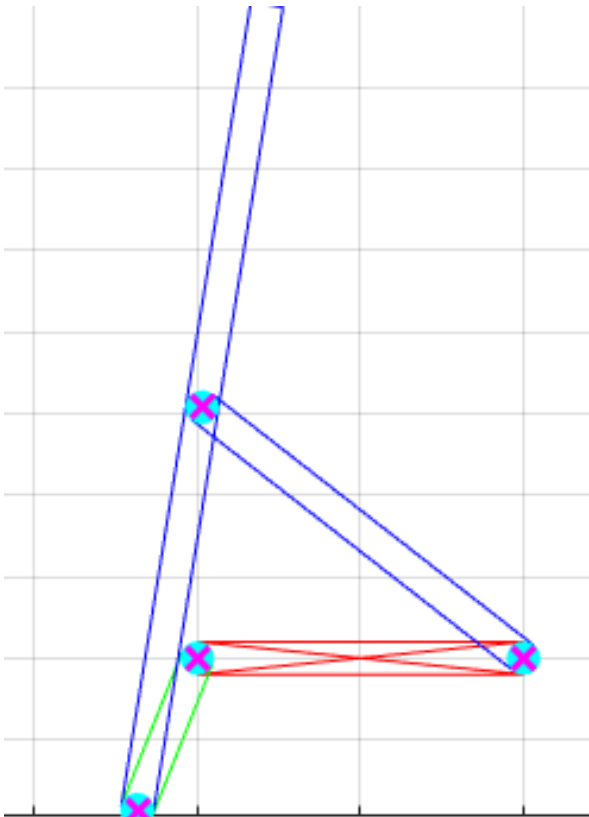Red - ground

drag-link

linkages(1)

double-rocker
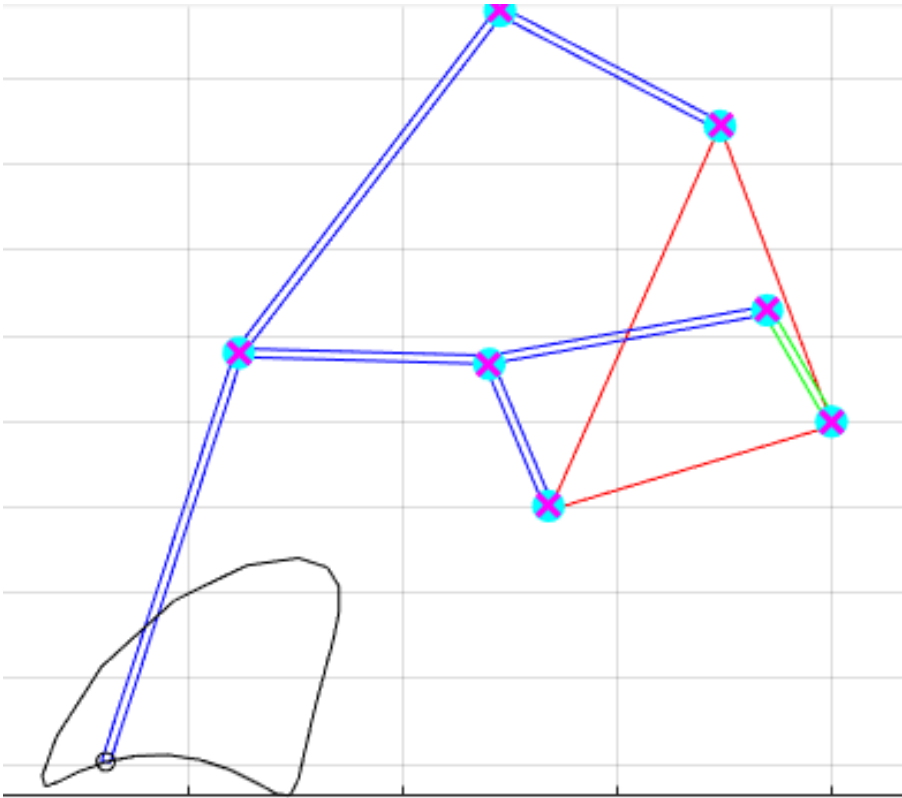
linkages(2)

Hoekens

linkages(3)

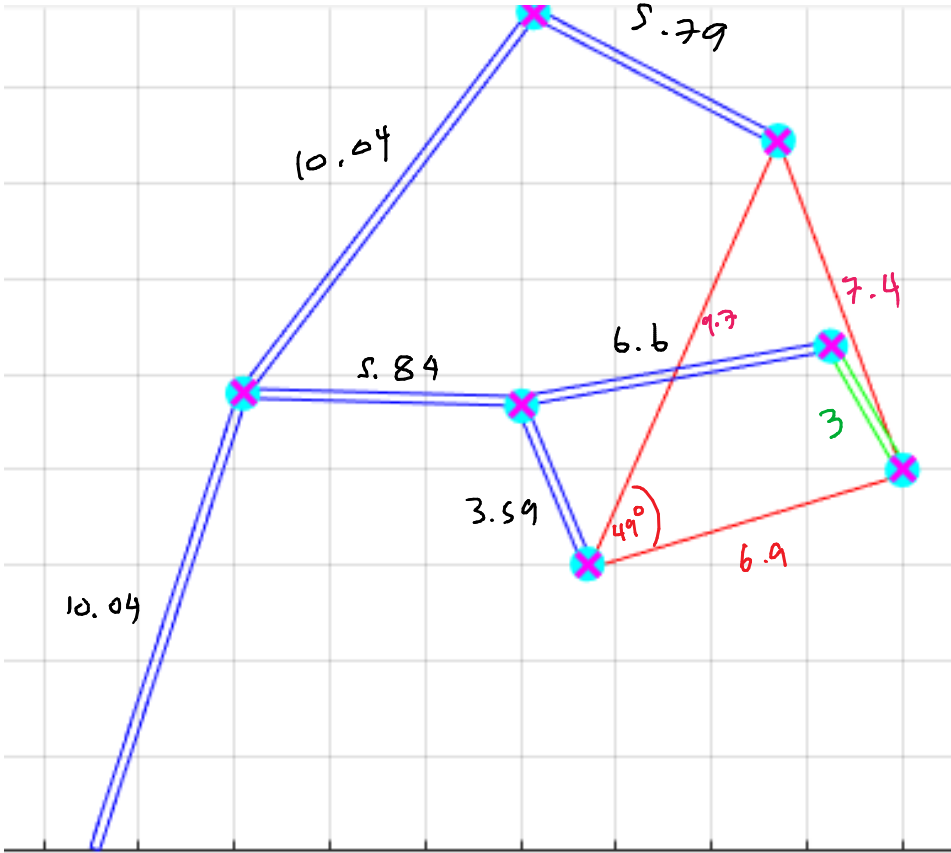# Peaucellier-Lipkin

linkages (4)

3.7
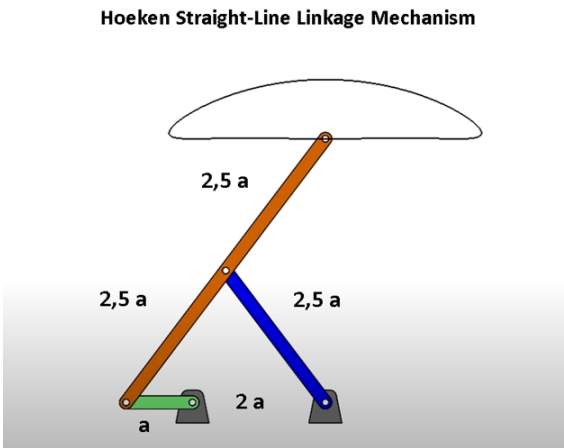
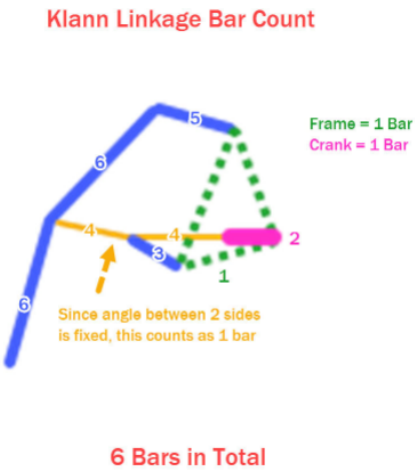2   2

1

2   2

3.7
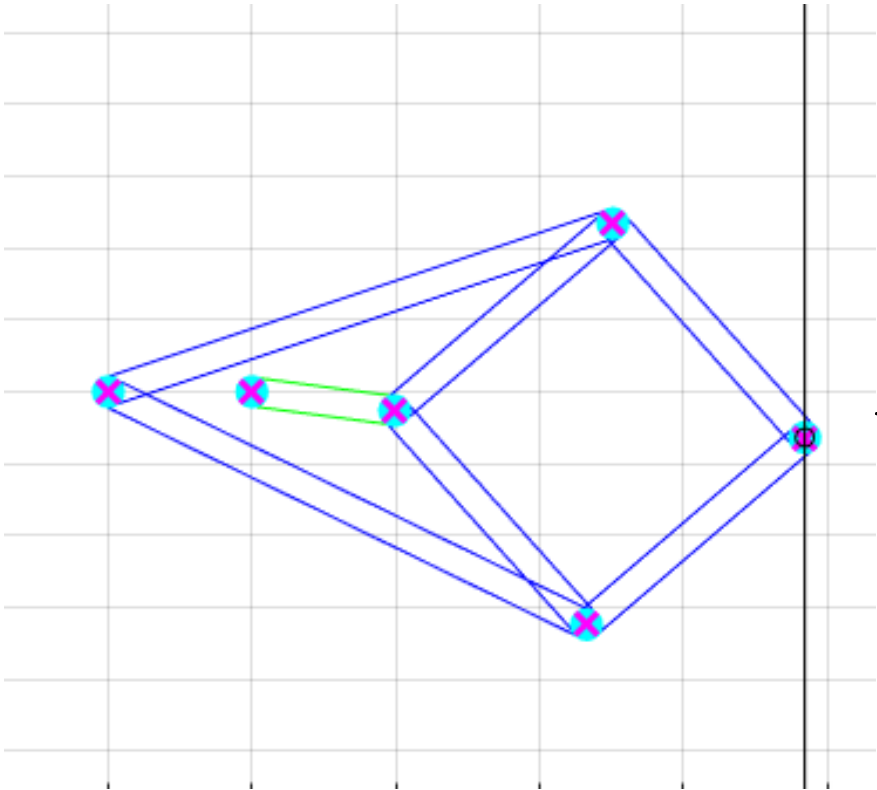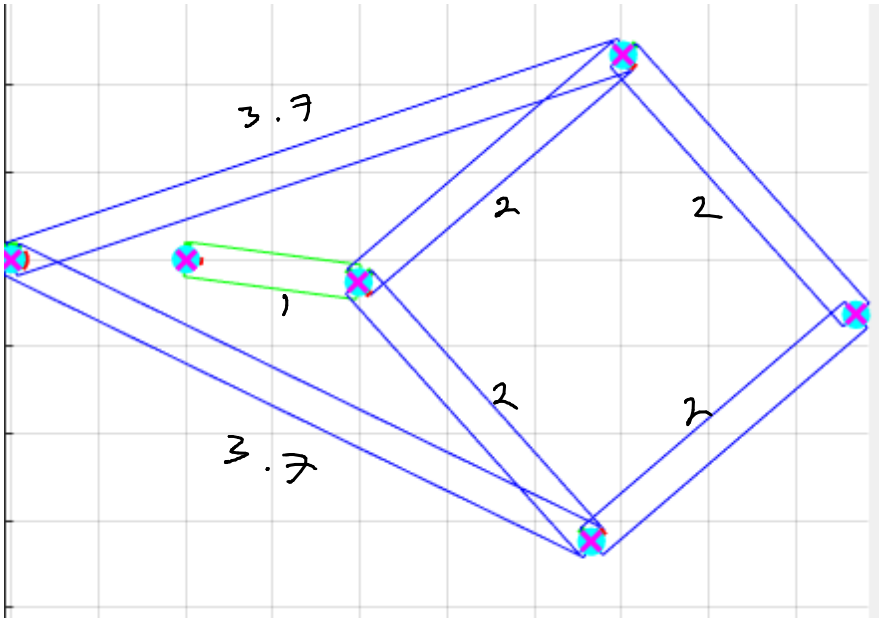
move in
straight
line !

Klann

linkages (5)

Hoekens

The design and dimension are based on the following youtube video
`https://www.youtube.com/watch?v=2J7P8wHf_gM`

Hoeken Straight-Line Linkage Mechanism

Klann

The design and dimension are taken from klann's original patent show in the following link
`https://www.diywalkers.com/klanns-linkage-plans.html`

Klann Linkage Bar Count

Frame = 1 Bar
Crank = 1 Bar

Since angle between 2 sides
is fixed, this counts as 1 bar

6 Bars in Total

Patent's standard version, with Klann's linkage measurements scaled so that the crank's length equals 3:

Klann Patent's Bar Lengths

Frame Coordinates and Bar Angles