

vertex	coordinates	incident edge
a	(0,2)	\vec{ba}
b	(2,0)	\vec{db}
c	(2,4)	\vec{dc}
\vdots	\vdots	\vdots

	boundary	hole
face	edge	list
f_1	\vec{ab}	nil
f_2	\vec{fe}	nil
f_3	nil	nil

half-edge	origin	face	twin	next	prev
\vec{fe}	f	f_2	\vec{ef}	\vec{ec}	\vec{df}
\vec{ca}	c	f_1	\vec{ac}	\vec{ab}	\vec{dc}
\vec{db}	d	f_3	\vec{bd}	\vec{ba}	\vec{fd}
\vdots	\vdots	\vdots	\vdots	\vdots	\vdots