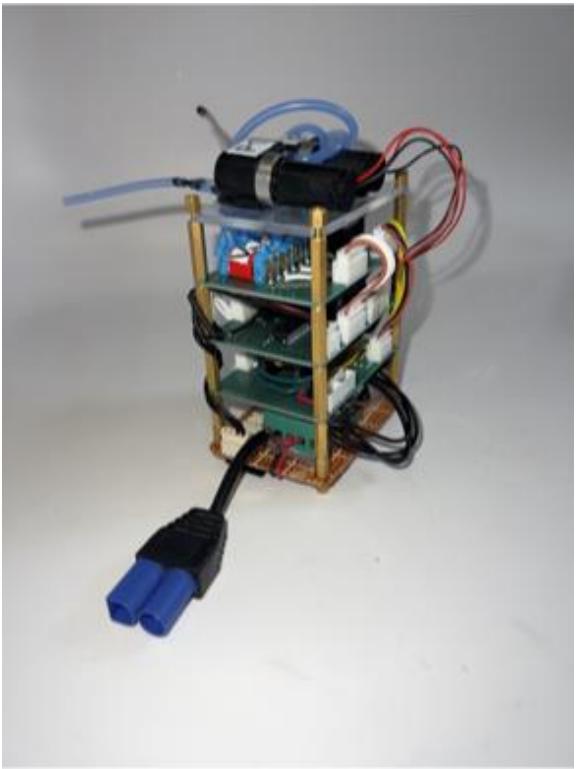


ONR Annual Review Slides

Turtle Robot Electronics Updates – Esteban Figueroa

Hardware



V1

Volume: 180 cm³

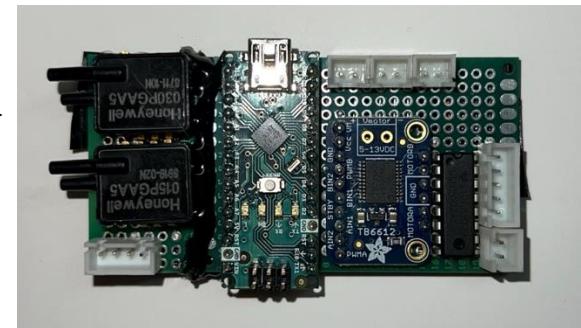
Weight: ~ 150 g



V2

Volume: 94.5 cm³

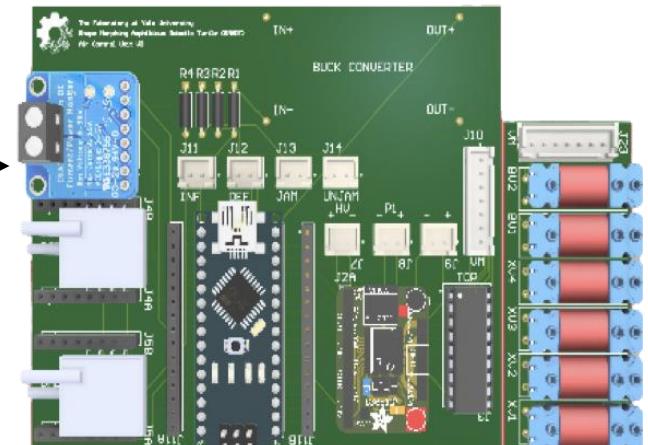
Weight: ~ 64.2 g



V3

Volume: 32 cm³

Weight: 34 g



V4

Volume: cm³

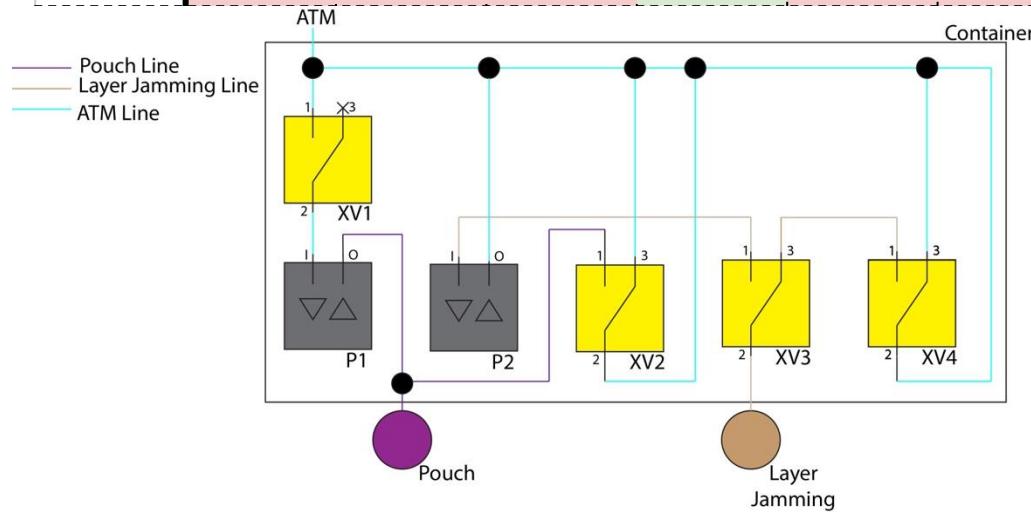
Weight: g

Pneumatic System V2-4

Functionality

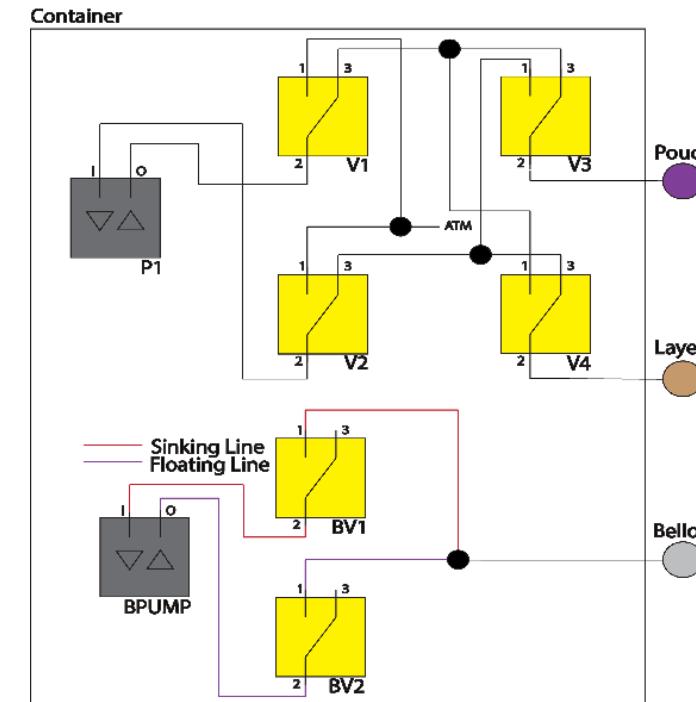
Pneumatic System V1

	XV1	XV2	XV3	XV4	P1	P2
Inflation	1	0	0	0	1	0
Jam	0	0	1	0	0	1
Deflation	0	1	0	0	0	0
Unjam	0	0	0	1	0	0



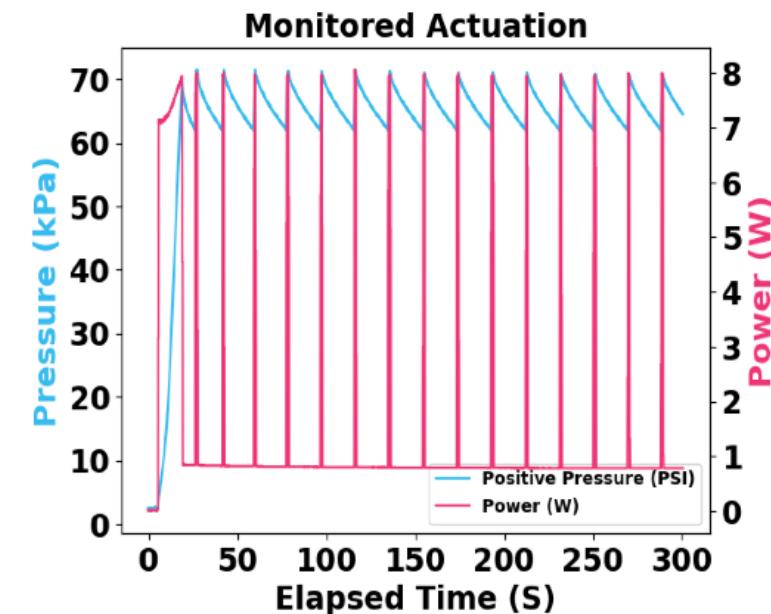
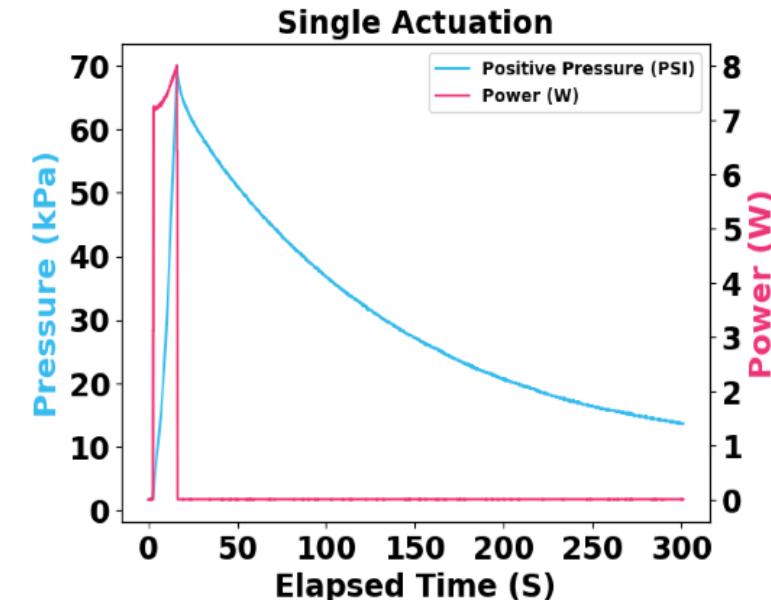
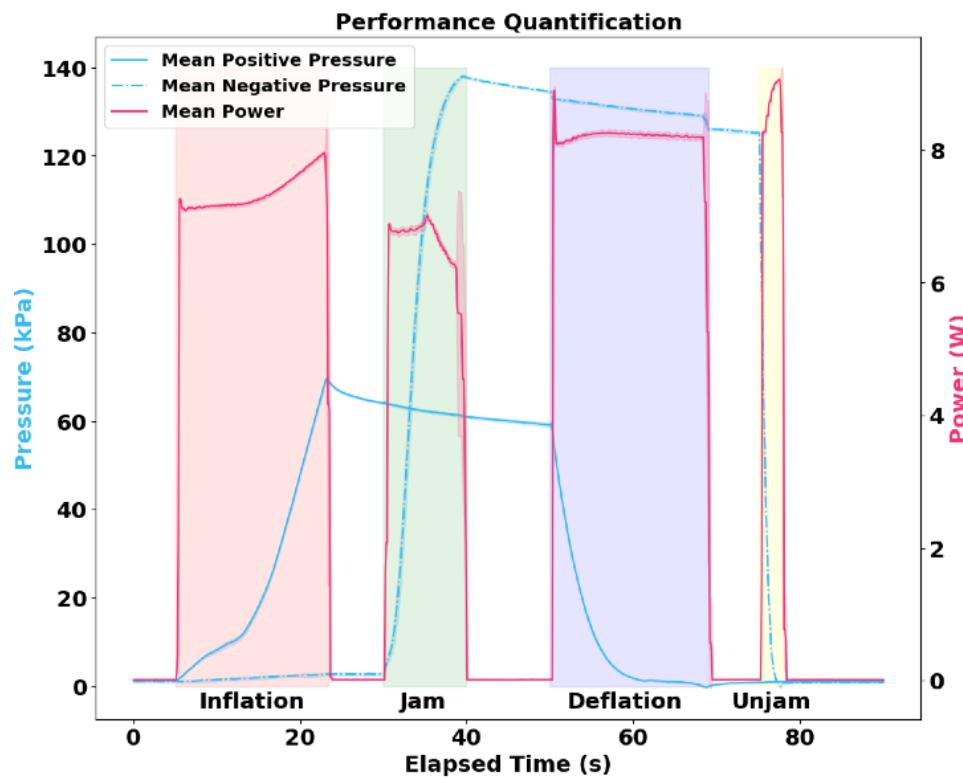
	V1	V2	V3	V4	P1
Inflation	0	1	0	0	1
Jam	1	0	0	0	1
Deflation	1	0	1	1	1
Unjam	0	1	1	1	0

	BXV1	BXV2	BPUMP
Inflation	1	0	1
Deflation	0	1	1



Performance

	Max Pressure (PSI)	Time (s)	Power Consumption (W)
Inflation	10	18	7.16
Jam	20	9	6.36
Deflation	0	18	8.04
Unjam	0	3	8.42



Cost of Morphing

(MARTY – Current Iteration)

