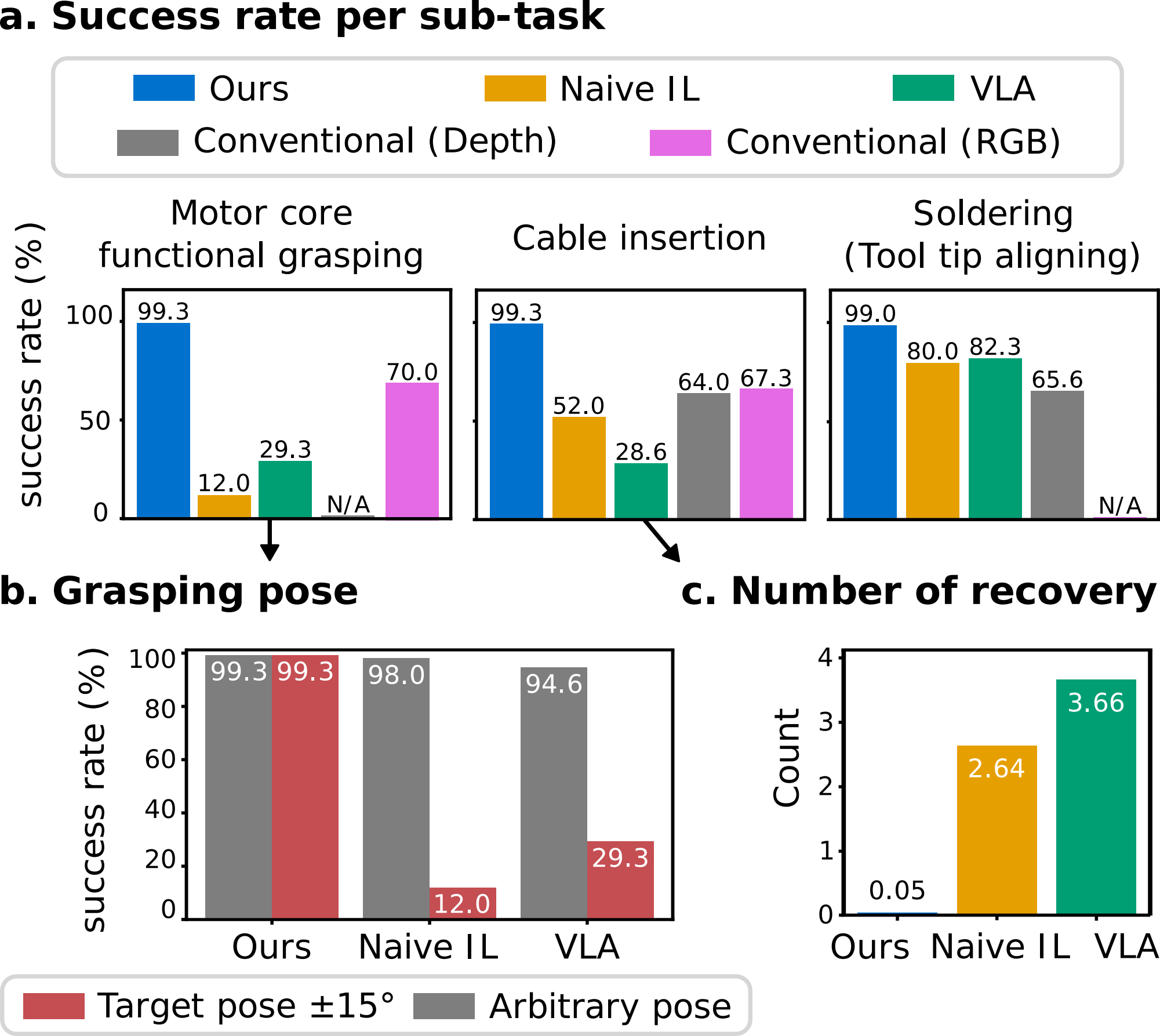

a. Success rate per sub-task
Ours
Naive IL
VLA
Conventional (Depth)
Conventional (RGB)
success rate (%)
Motor core functional grasping
Cable insertion
Soldering (Tool tip aligning)
100
50
0
99.3
12.0
29.3
N/A
70.0
99.3
52.0
28.6
64.0
67.3
99.0
80.0
82.3
65.6
N/A
b. Grasping pose
c. Number of recovery
success rate (%)
100
80
60
40
20
0
99.3
99.3
98.0
12.0
94.6
29.3
Ours
Naive IL
VLA
Count
4
3
2
1
0
0.05
2.64
3.66
Ours
Naive IL
VLA
Target pose ±15°
Arbitrary pose