IV-GO COLLIDER PROJECT

"Patients are a virtue"

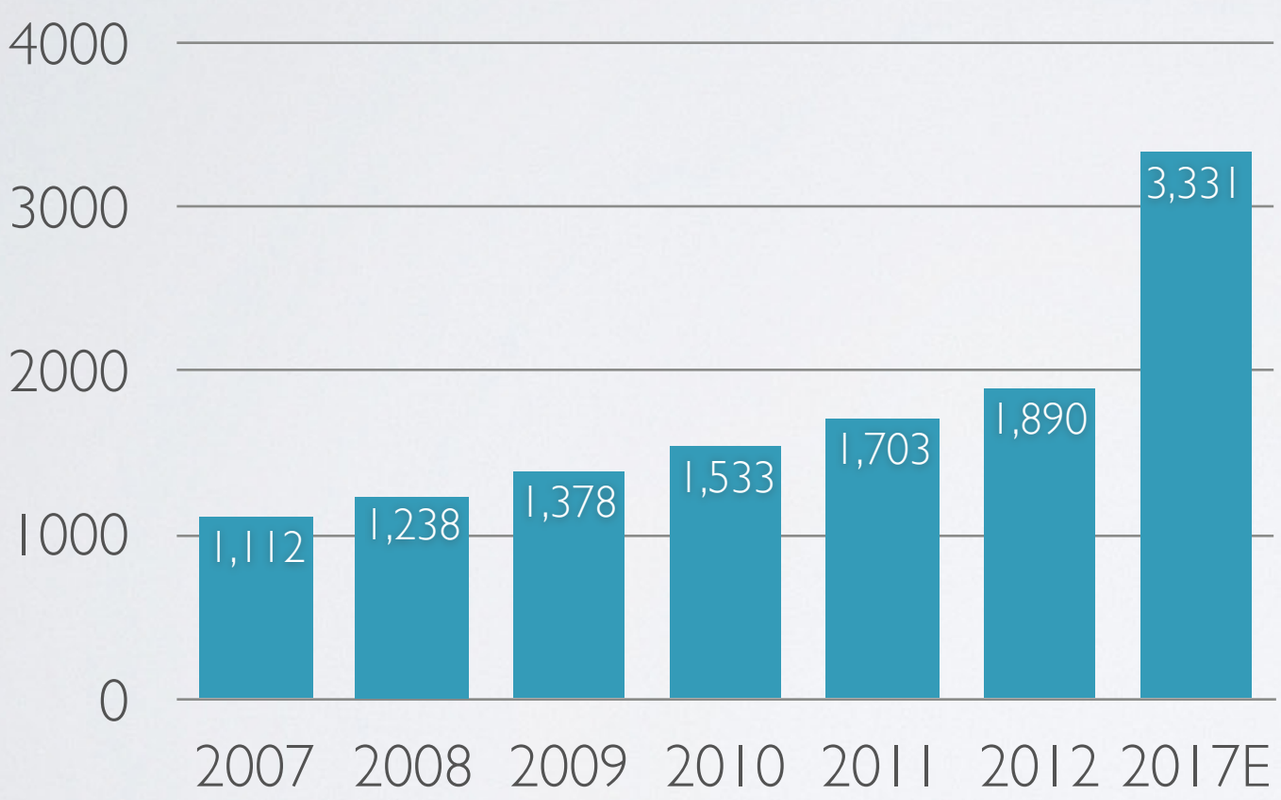
Typical Hospital in Rural India

Interviews with 15+ stakeholders:
Doctors, Nurses, EMTs,
Manufacturers, Medical Device Specialists…

Low & Middle Income Countries

100+ Patients / Nurse
Risk of HAI 2-3x higher

INDIA'S HEALTHCARE INDUSTRY IS ESTIMATED TO BE **$280B** AND GROWING



Demand for IV Bags

↑ 76%

A DEVICE PATIENTS WILL WANT TO WEAR

Simple & Elegant

Human-Centric Design

Functional

91% Accuracy on Drip Tests

Affordable

Unit Cost of $9.83

NEXT STEPS

Refine Mechanism

2 Months

Manufacturing Partners

3 Months

Approval Process

5 Months

Market Test in Gujarat

6 Months

Asher Saghian

M.Eng. Product Design

B.S. Biomedical Engineering

Lead Design at Medical Device Startup providing affordable Ventilators to Developing Economies (*1 year*)

Patrick Thelen

M.Eng. IEOR

B.S. Mechanical Eng. & Management

Technical Sales Engineer for Varying Industries - Pharma, Life Science, Medical Device (*5 years*)

APPENDICES

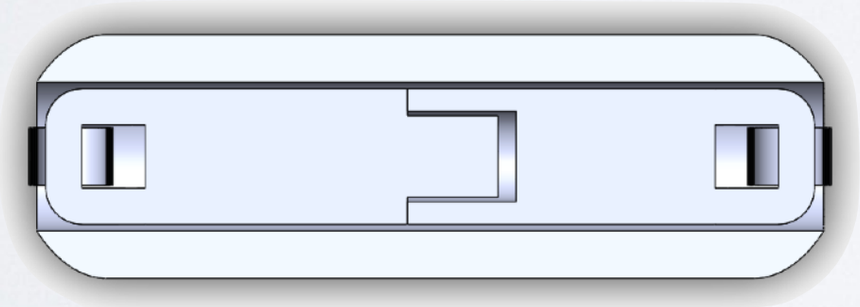
Design Renders & Next Steps

Mechanism reduces friction and
eliminates visibility and intrusion of springs

Roller Hooks hold roller in place to
provide easy IV bag assembly

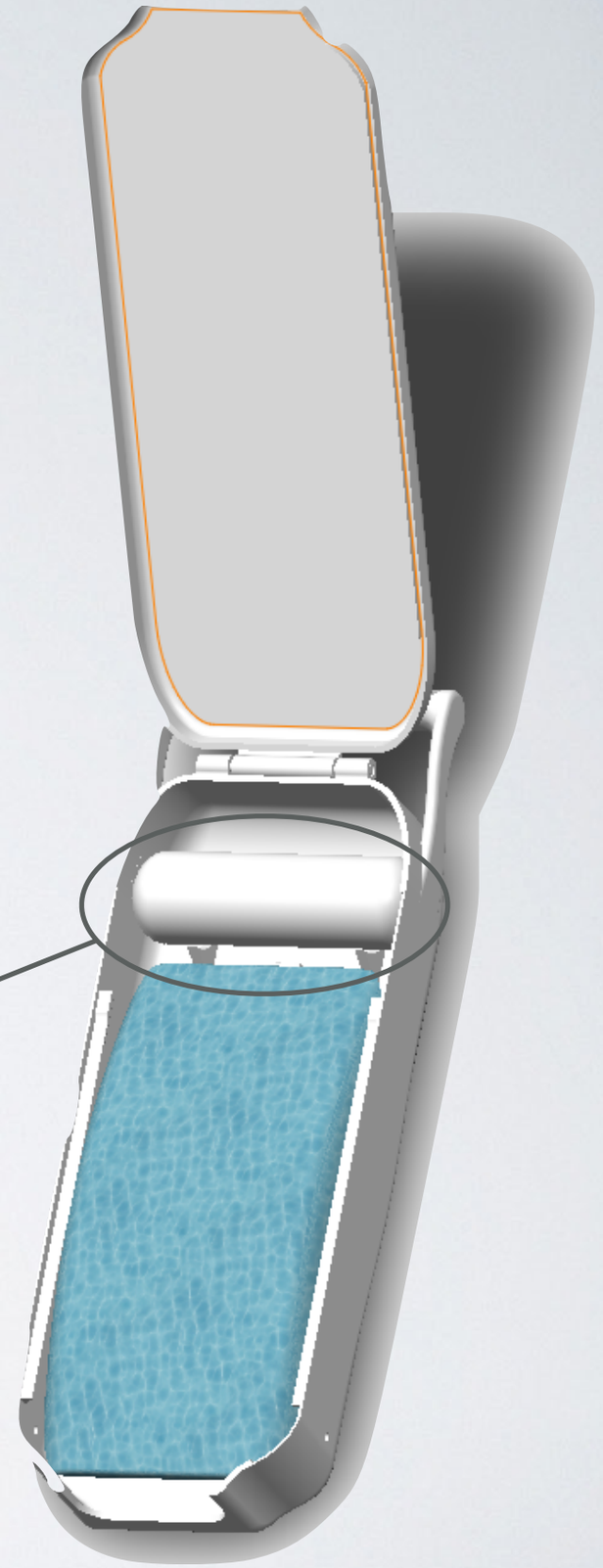
Velcro Hooks to redirect tubing
and prevent tangling

Future Additions: Flow Sensor and Air Filter in IV Tubing

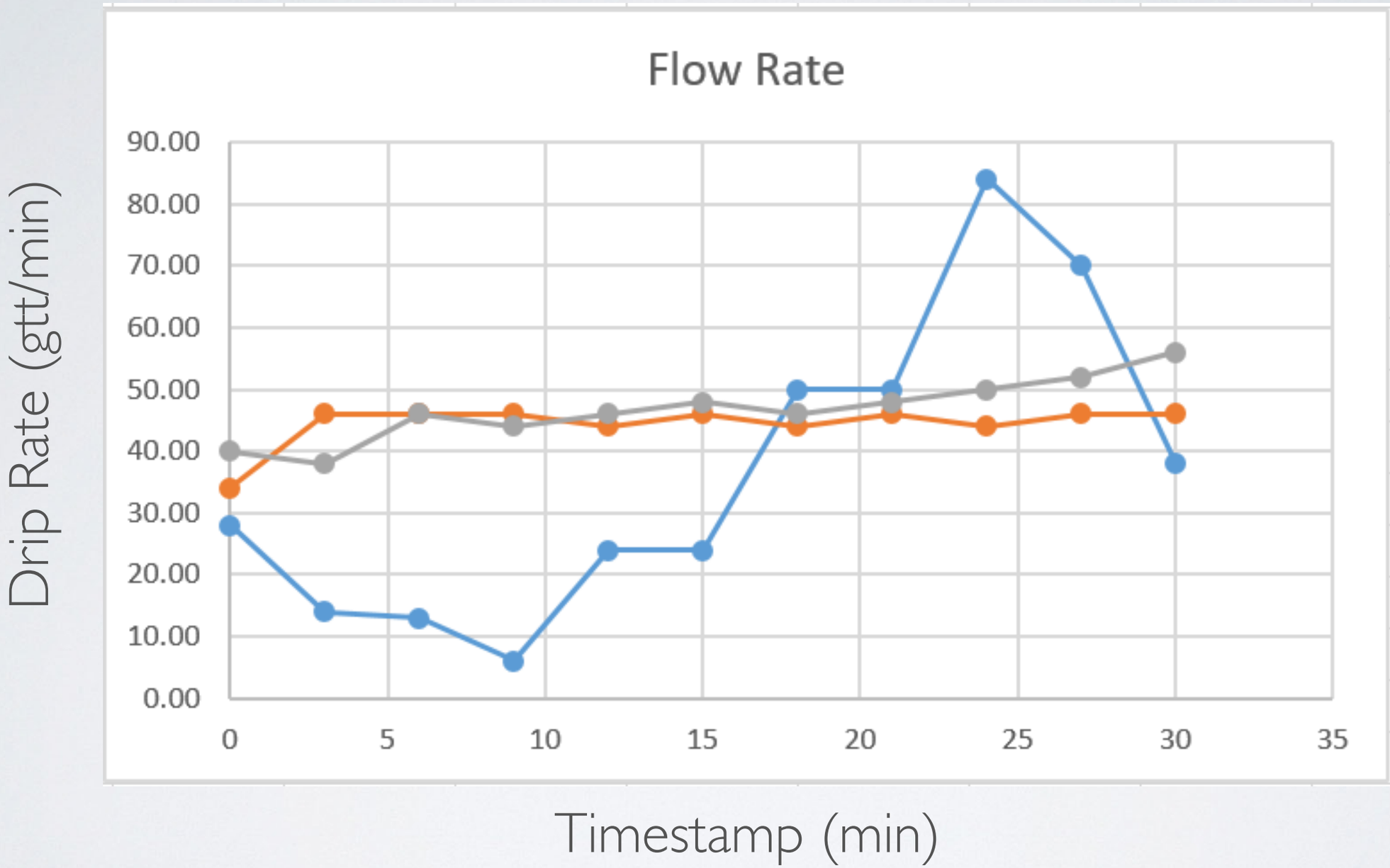


Cross Section of Roller Shaft Mechanism

Device Interior



DRIP RATE TESTS



BILL OF MATERIALS

Part #	Part Name	Quantity	Unit Cost	Total Cost
1	Main Enclosure	1	$3.00	$3.00
2	Enclosure Door	1	$1.07	$1.07
3	Hinge Pin	1	$0.01	$0.01
4	Roller Subassembly	1	-	-
4.1	Roller	1	$0.55	$0.55
4.2	Roller Shaft A	1	$0.42	$0.42
4.3	Roller Shaft B	1	$0.42	$0.42
5	Spring	2	$1.50	$3.00
6	Screw	2	$0.10	$0.20
7	Nut	2	$0.08	$0.16
8	Acryllic Window	1	$0.25	$0.25
9	Shoulder Strap	1	$0.75	$0.75
			Total Cost:	**$9.83**