



# THE CRUNCHINATOR

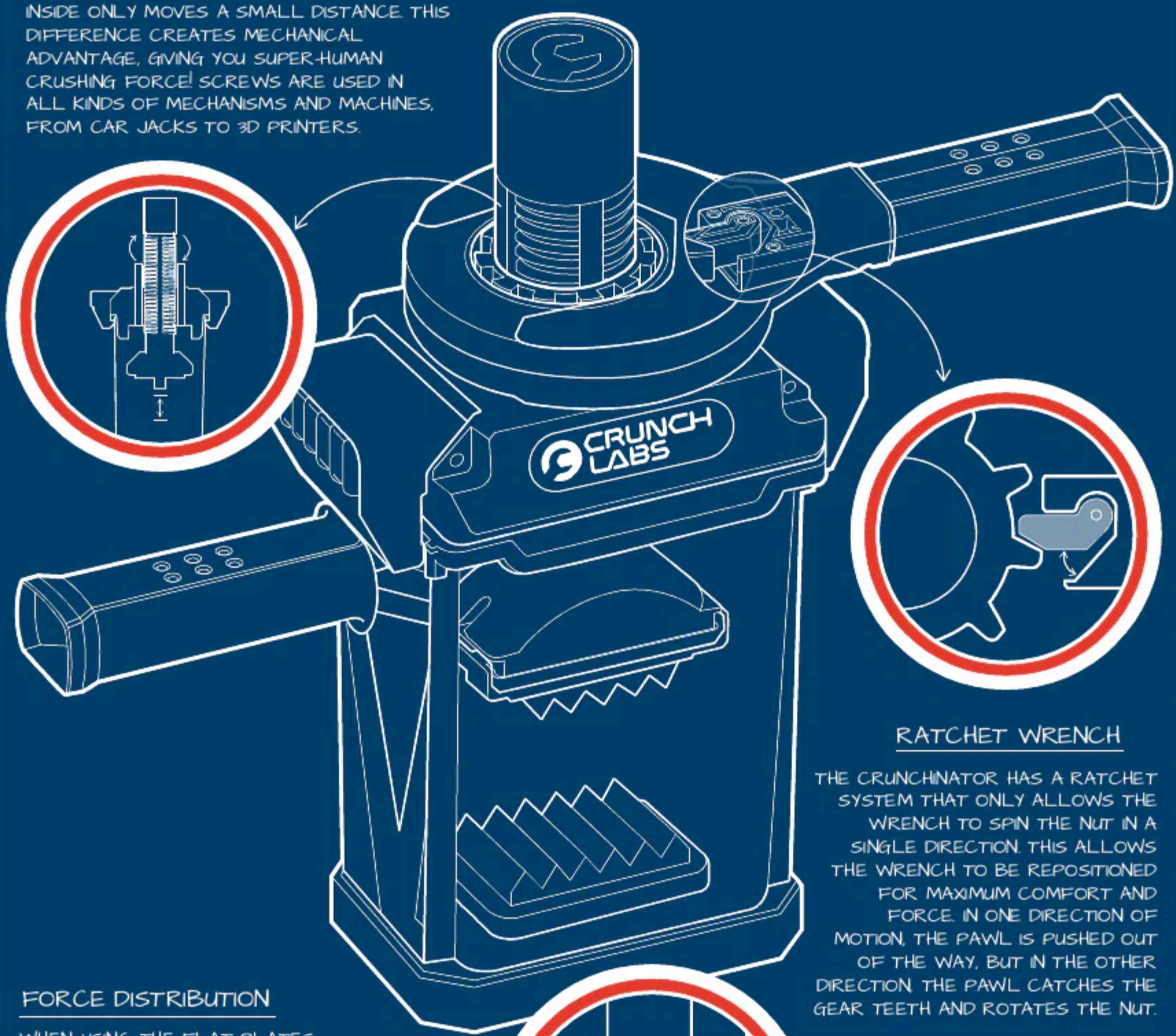


PRISON BREAKING ENGINEERING

### SCREW

THE CRUNCHINATOR USES A SCREW TO CONVERT ROTATION INTO LINEAR MOTION AND MULTIPLY YOUR FORCE! WHEN YOU ROTATE THE HANDLE, YOUR HAND MOVES A LARGE DISTANCE, BUT THE SCREW INSIDE ONLY MOVES A SMALL DISTANCE. THIS DIFFERENCE CREATES MECHANICAL ADVANTAGE, GIVING YOU SUPER-HUMAN CRUSHING FORCE! SCREWS ARE USED IN ALL KINDS OF MECHANISMS AND MACHINES, FROM CAR JACKS TO 3D PRINTERS.

SCREWS ARE POWERFUL TOOLS USED FOR MORE THAN JUST CRUNCHINATING! IN HIS VIDEO 'HOW TO ESCAPE ALCATRAZ WITH BASIC ENGINEERING' MARK SHOWS HOW PRISONERS USED A SCREW MECHANISM TO BEND APART STEEL BARS AND SQUEEZE THEIR WAY TO FREEDOM!



### FORCE DISTRIBUTION

WHEN USING THE FLAT PLATES, THE FORCE APPLIED BY THE CRUNCHINATOR SCREW IS SPREAD OUT OVER A LARGE AREA, MAKING IT GOOD FOR FLATTENING AND SQUISHING SOFTER ITEMS. WHEN YOU USE THE IMPACT WEDGE, ALL THAT FORCE IS CONCENTRATED INTO A MUCH SMALLER AREA. THIS MEANS THAT THE WEDGE CAN PUSH HARDER ON A SINGLE POINT THAN THE FLAT PLATES CAN, MAKING IT BETTER FOR BREAKING THINGS APART.

### RATCHET WRENCH

THE CRUNCHINATOR HAS A RATCHET SYSTEM THAT ONLY ALLOWS THE WRENCH TO SPIN THE NUT IN A SINGLE DIRECTION. THIS ALLOWS THE WRENCH TO BE REPOSITIONED FOR MAXIMUM COMFORT AND FORCE. IN ONE DIRECTION OF MOTION, THE PAWL IS PUSHED OUT OF THE WAY, BUT IN THE OTHER DIRECTION THE PAWL CATCHES THE GEAR TEETH AND ROTATES THE NUT.

FRONT

	THE CRUNCHINATOR OFFICIAL BLUEPRINT		THE CRUNCHINATOR
	REVISION: 10	SCALE: 13 : 1	