



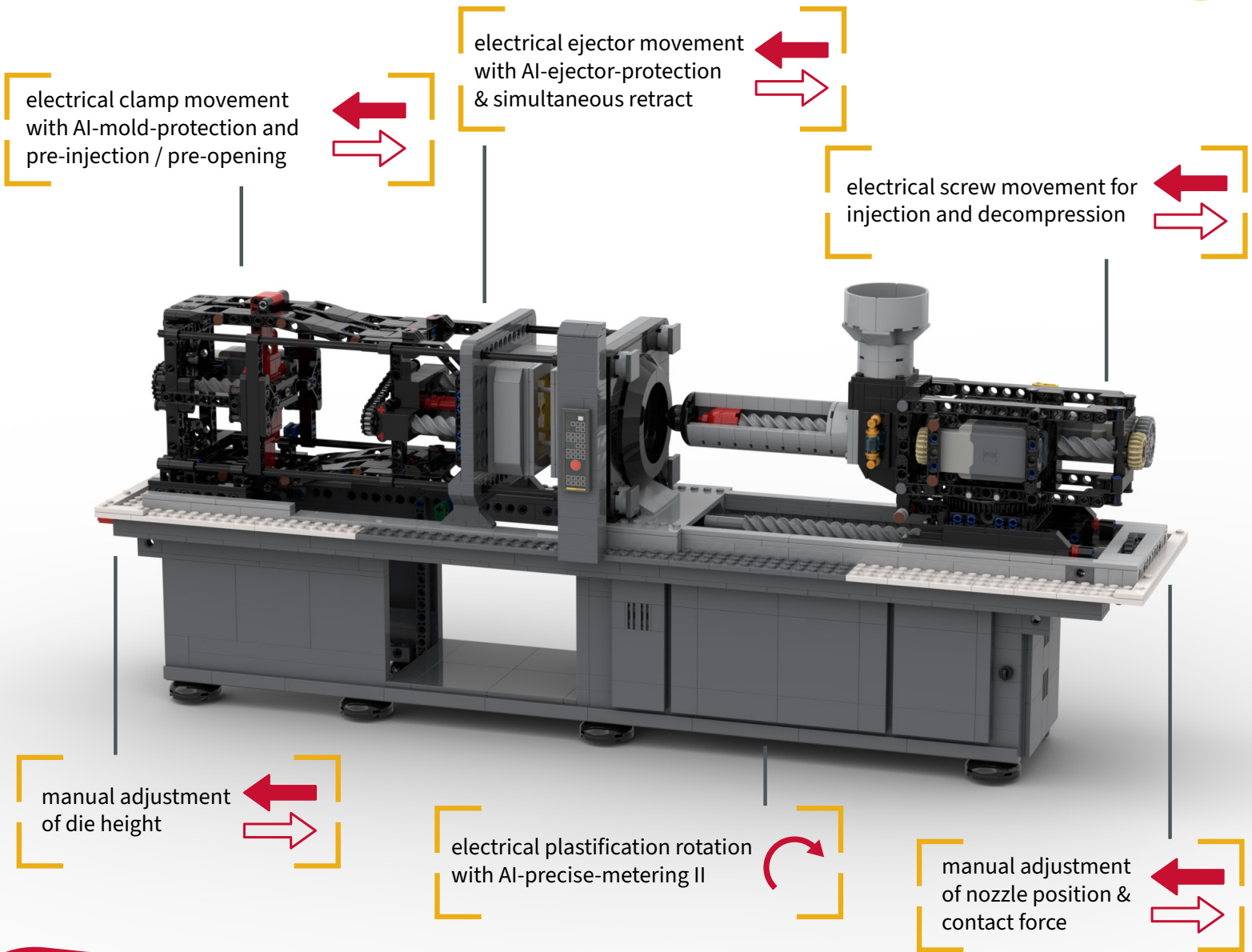
miniature

FANUC ROBOSHOT S180C

build . watch . understand

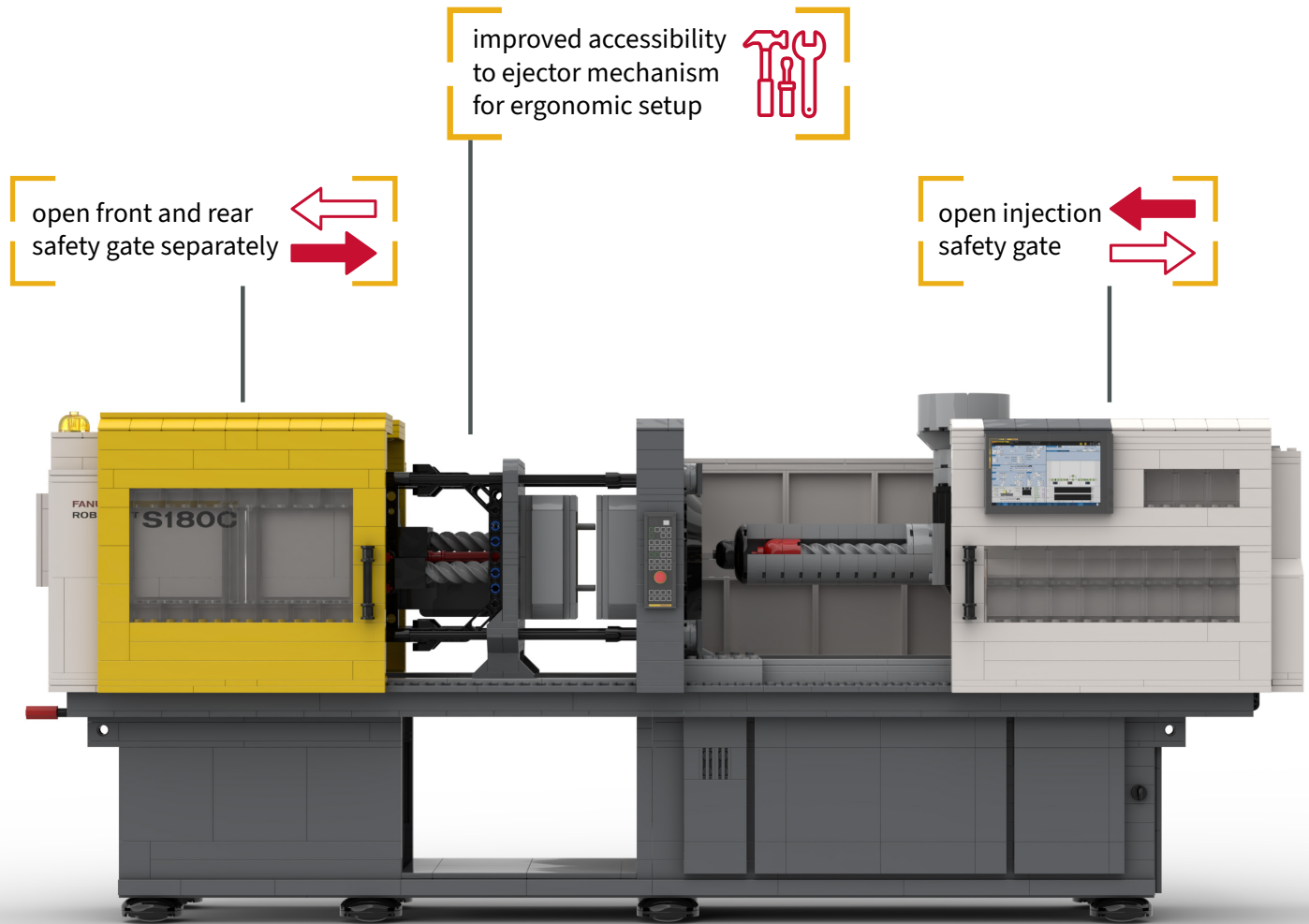
KEY FEATURES

TRUE TO ORIGINAL DESIGN



DETAILS

DISCOVER FUNCTIONALITIES



open front and rear safety gate separately

improved accessibility to ejector mechanism for ergonomic setup

open injection safety gate

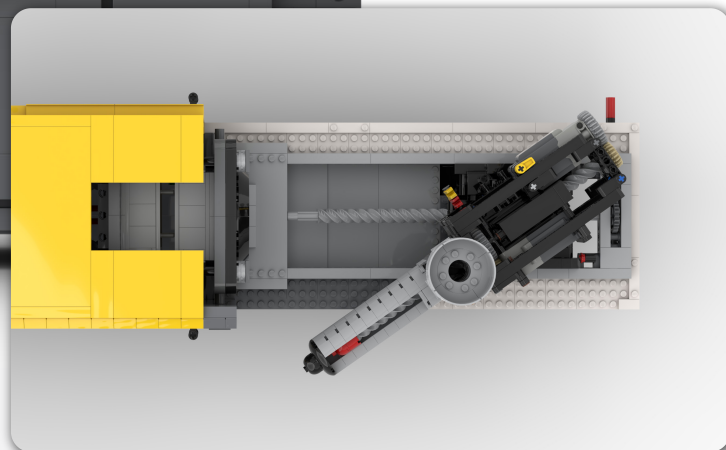
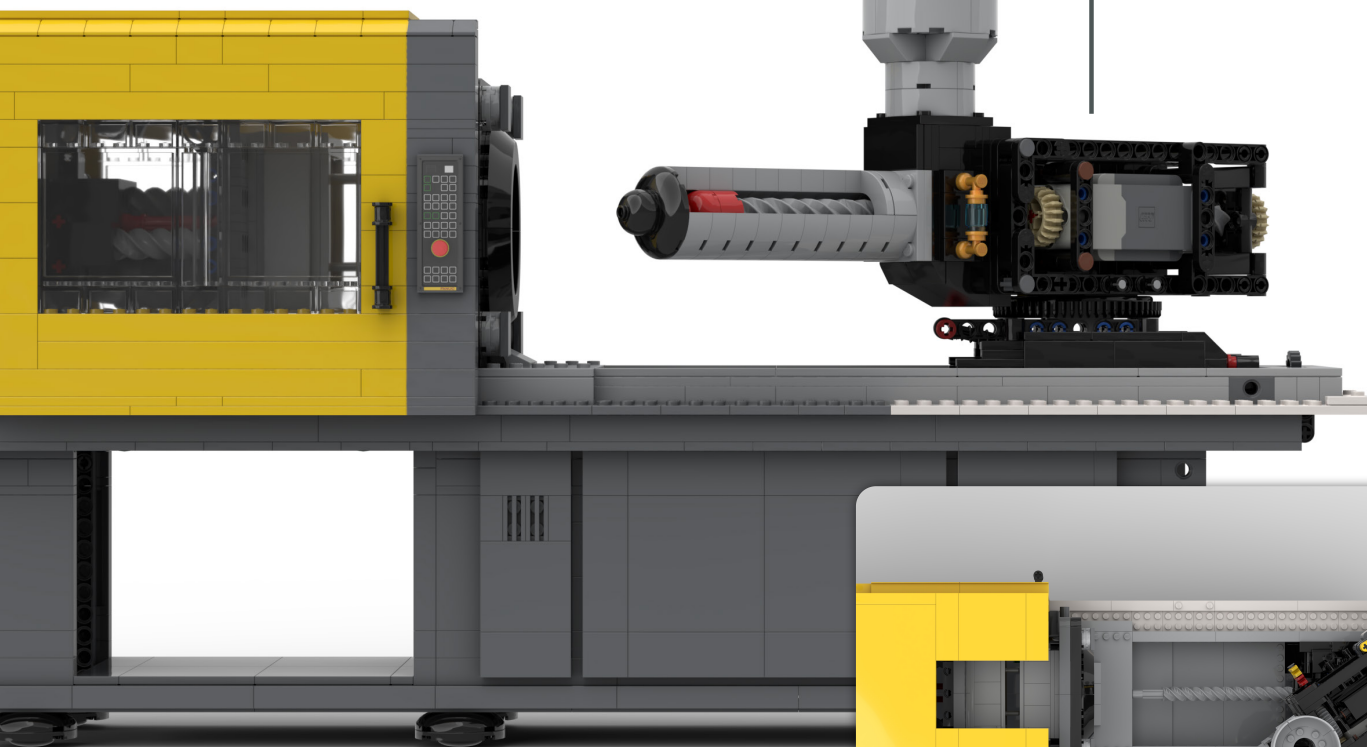
see running demo on video



DETAILS

DISCOVER FUNCTIONALITIES

pivoting injection unit for
better accessibility of
operator maintenance



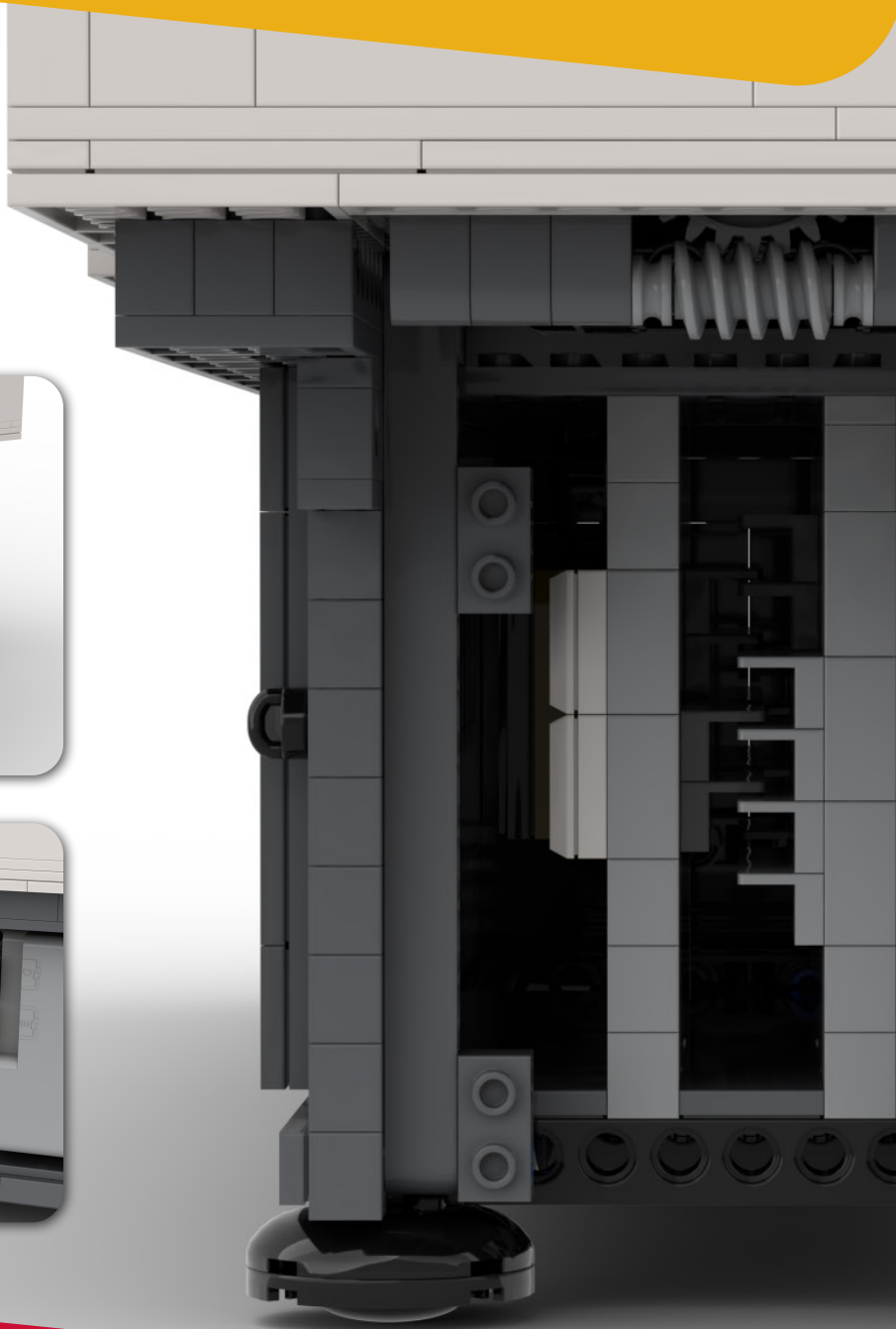
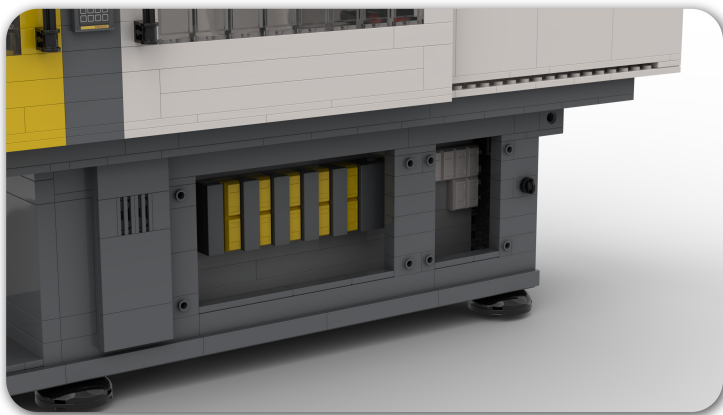
CORE VALUES

TRUE TO ORIGINAL PHILOSOPHY

own cnc-control, inverter and servo motors lift the ROBOSHOT to an excellent level of productivity, reliability and ease of use.



all components are proudly manufactured by FANUC CORPORATION in JAPAN.



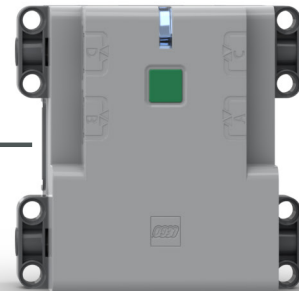
EASY TO USE

INSIGHTS INTO FUNCTIONALITY

the safety housing is designed for quick release to offer direct visibility and accessibility



single button operation:
1st press turns the model on
2nd press starts it
after set cycles, model stops
could it be easier?



use 6x 1.5V AA batteries for automatic demonstration



a self-test at startup checks whether the model has been assembled correctly



HOW IT WORKS

CREATE A BETTER UNDERSTANDING

the set comes along with a ready-to-run injection molding program, simulating the real process on a simplified model. FANUC's AI-mold and AI-ejector protection, precise metering II, pre- injection with pre-opening & simultaneous ejector movements during clamp activity is included to enrich standard application process.



```
149 #MOULDING CYCLE PARAMETER
150 CYCLE_COUNTER = 100 #in number cycles
151 CORE_COOLING_TIME = 4000 #in ms (no clamp movement in this time)
152 FORCE_REDUCED_COOLING_TIME = 1000 #in ms (start open the mould slowly during additional cooling time)
153 CLAMP_PRE_INJECTION_DELAY = 500 #in ms (closing mould after start injection)
154 BACK_PRESSURE_DELAY = 500 #in ms
155
156 for count in range(CYCLE_COUNTER): #re-do cycles for CYCLE_COUNTER
157     print("-----")
158     print("--      START MOULDING CYCLE      --")
159     print("-----")
160     hub.light.on(Color.YELLOW) #set visualization to active cycle
161
162     print("...close mould with AI mould protection...")
163     while True: #re-do till clamp is closed or AI mould protection occurs
164         CLAMP.run(CLAMP_SPEED)
165         CLAMP_POS_ACTUAL = CLAMP.angle()
166         CLAMP_LOAD_ACTUAL = CLAMP.load()
167         print("CLAMP POS:", CLAMP_POS_ACTUAL, "LOAD:", CLAMP_LOAD_ACTUAL)
168
169         #observe: target position reached?
170         if CLAMP_POS_ACTUAL >= CLAMP_POS_PRE:
171             print("...mould closed successful...")
172             CLAMP.stop()
173             wait (0)
174             break
175
176         #observe: AI mould protection violated?
177         if CLAMP_LOAD_ACTUAL < CLAMP_AI_PROTECTION_LIMIT:
178             print("ai mould protection active! Shutdown")
179             CLAMP.stop
180             hub.light.animate([Color.RED * (0.5 * sin(i / 15 * pi) + 0.5) for i in range(30)], 40)
181             CLAMP.run_target (CLAMP_SPEED, CLAMP_POS_OPEN)
```

build . watch . understand:

improve your understanding of complex functions by examining the code included in the documentation. power-users are given **live access** via web plugin*, allowing to modify parameters like "set cycle number" or "cooling time". experts are able to extend or switch to their own ideas in python coding language. a transparent system without restrictions but with all possibilities.



*requires a Bluetooth-enabled device with internet access, not included. external service, long-term availability not guaranteed.

BUILD YOUR OWN

STEP BY STEP INSTRUCTION

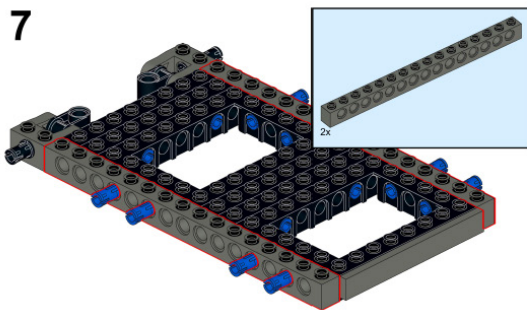
500+ pages detailed step by step instruction with operator guide on USB-Stick included



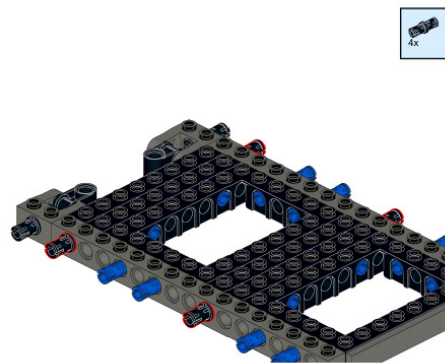
designed for age 18+ kids only with parents



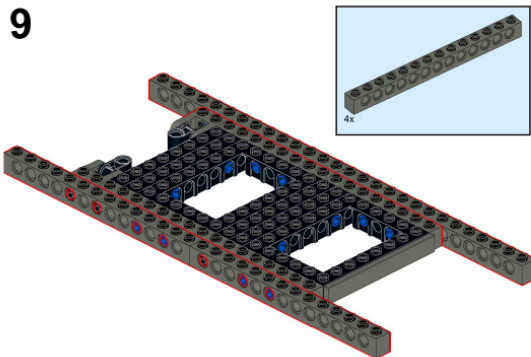
7



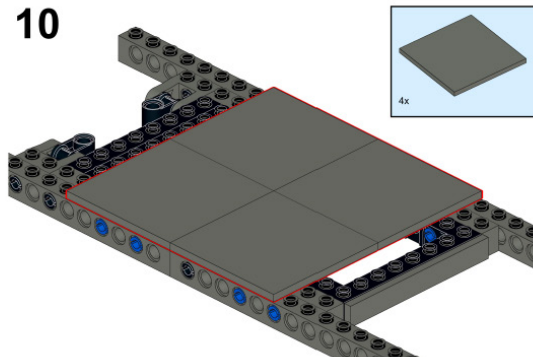
8



9



10



no special skills necessary



not to use for age 0-3 small parts that can be swallowed



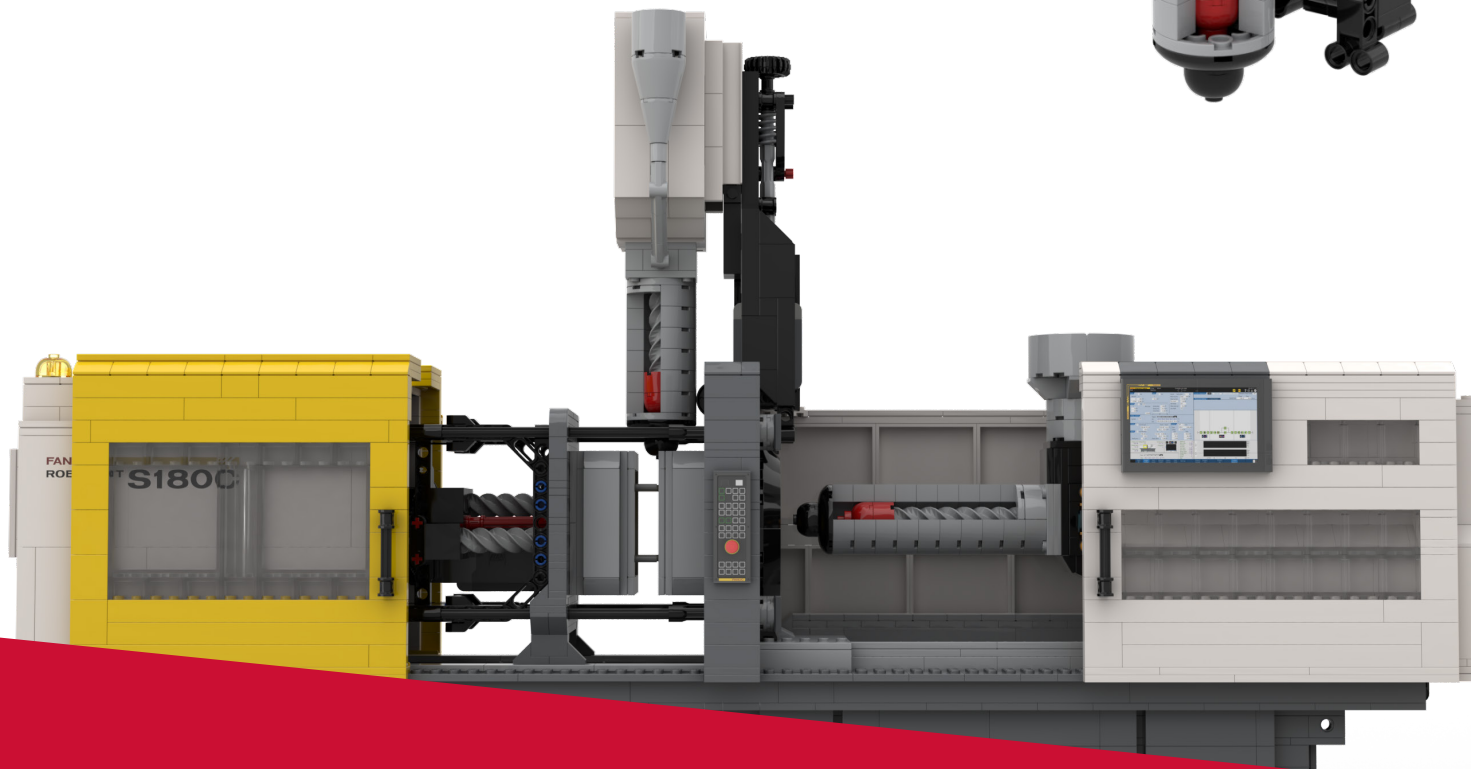
ACCESSORIES

MULTI-COMPONENT EXTENSION KIT

FANUC ROBOSHOT SI-20A VERTICAL INJECTION UNIT

Upgrade your miniature ROBOSHOT S180C for 2-component (2K) applications by adding the miniature SI-20A on top of the stationary platen - just like the full-scale original!

The SI-20A extends the system with advanced **electrical** functionalities, including the **newly integrated nozzle movement**, as well as **injection** and **dosing**. The nozzle engages the mold's parting plane shot by shot and retracts after injection/dosing, enabling smooth clamp movement.



ACCESSORIES

MULTI-COMPONENT EXTENSION KIT

The unit is supplied with a dedicated control cabinet trolley, equipped with representative control elements such as converters and I/O modules, providing a realistic and application-oriented visualization of FANUC's industrial control architecture.

The S180C **connects wirelessly** to the SI-20A via Bluetooth®, enabling automatic recognition of the extension unit. When the 2K control is activated, the system switches to 2-component (2K) mode; if deactivated, it operates in standard 1-component (1K) mode. **Bridging both application worlds.**



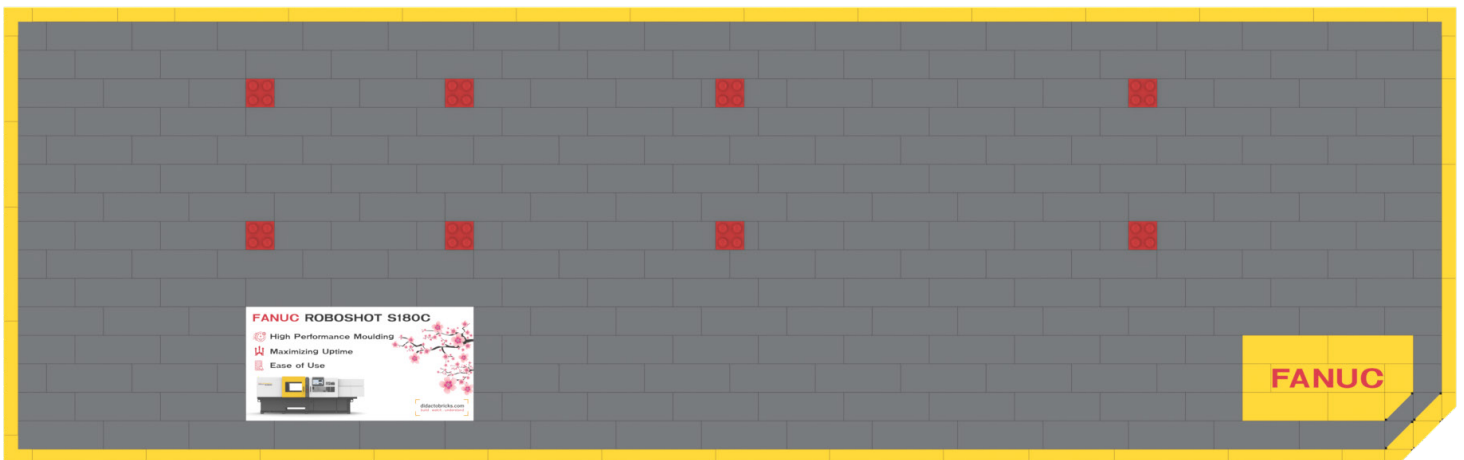
use 6x 1.5V AA batteries for automatic demonstration



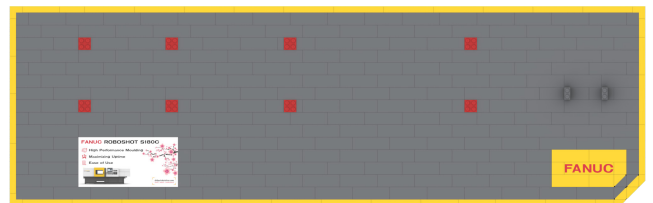
ACCESSORIES

PROMOTIONAL BASEPLATE KIT

Designed for display purposes, the baseplate showcases the machine in a visually appealing and realistic manner, **simulating its environment on a production site**. This makes it ideal for presentations, exhibitions, or as a desk model. The included nameplate highlights the **key features** of the ROBOSHOT: **High Performance Molding, Maximizing Uptime, and Ease of Use.**



Packaging dimension: 380 x 260 x 115mm, 2 KG
Product dimension: 816 x 256 x 10mm, 1,2 KG



Designed to use with or without the SI-20A vertical injection unit extension kit.

CUSTOMIZATION

INDIVIDUAL PRINTS

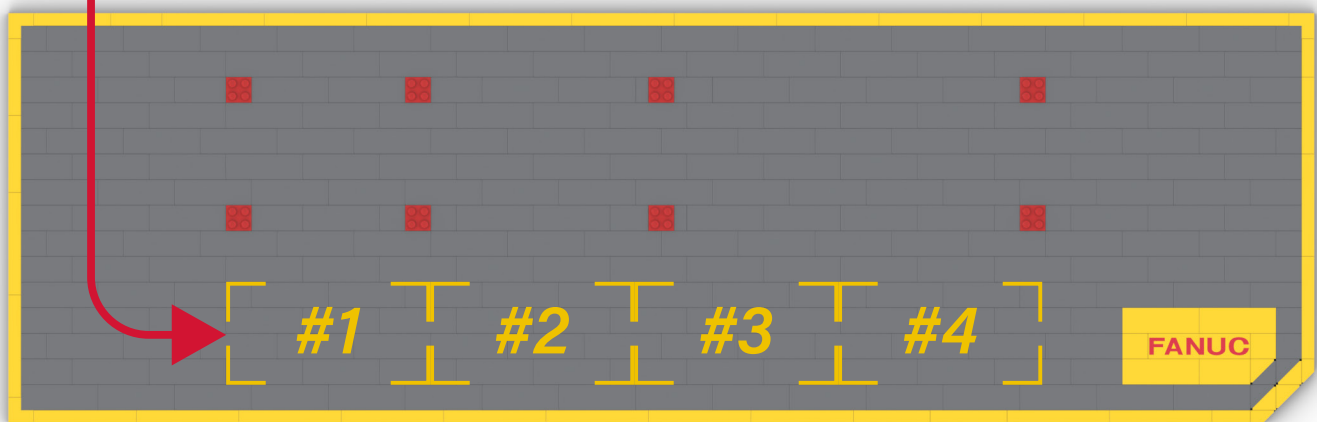
enhance your presentation with your printed highlight on a white tile — positioned next to or instead of the standard “key features” tile. Grab attention with your own logo, message, or product highlights with premium quality printing.



Please provide your artwork in PNG format with transparent background - digital rendering of your solution is included.

Tile-Size: 128 × 64 mm

Recommended resolution: 3000 × 1500 pixels

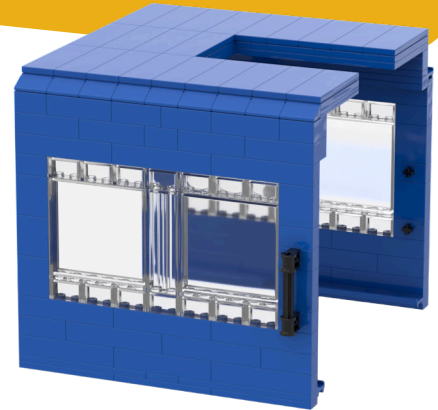


CUSTOMIZATION

INDIVIDUAL DOOR COLOUR

To better align with your corporate identity, the following special colours are optionally available: **White | Orange | Red | Blue | Dark Azure**

This allows you to customize the appearance of your miniature ROBOSHOT to match your company's branding. Please note that, for organizational reasons, the coloured door is supplied as a additional item on request.



The clamp cover be supplied without a type designation upon request, allowing flexible labeling to better match your corporate identity.

USE CASES

PROFESSIONAL AND PRIVATE

eye-catcher and attention magnet at fairs and exhibits



quality time with your child

display piece for home or office use



premium promotional gift or donation including your custom printed logo

real explanatory model for USP product presentation



emotional connector even in professional environments

promoting young talent for molding application



unifying employee incentive



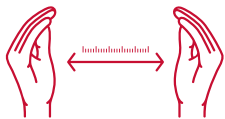
DIMENSIONS

MINIATURE SCALE 1:8

length 65 cm | width 18.4 cm | height 27.1 cm

weight: 3700 Gramm (without batteries and packaging)

quantity: 2582 bricks | types of bricks: 400



packaging dimension | 500x350x180mm, 4,8 KG



ABOUT

THE STORY BEHIND

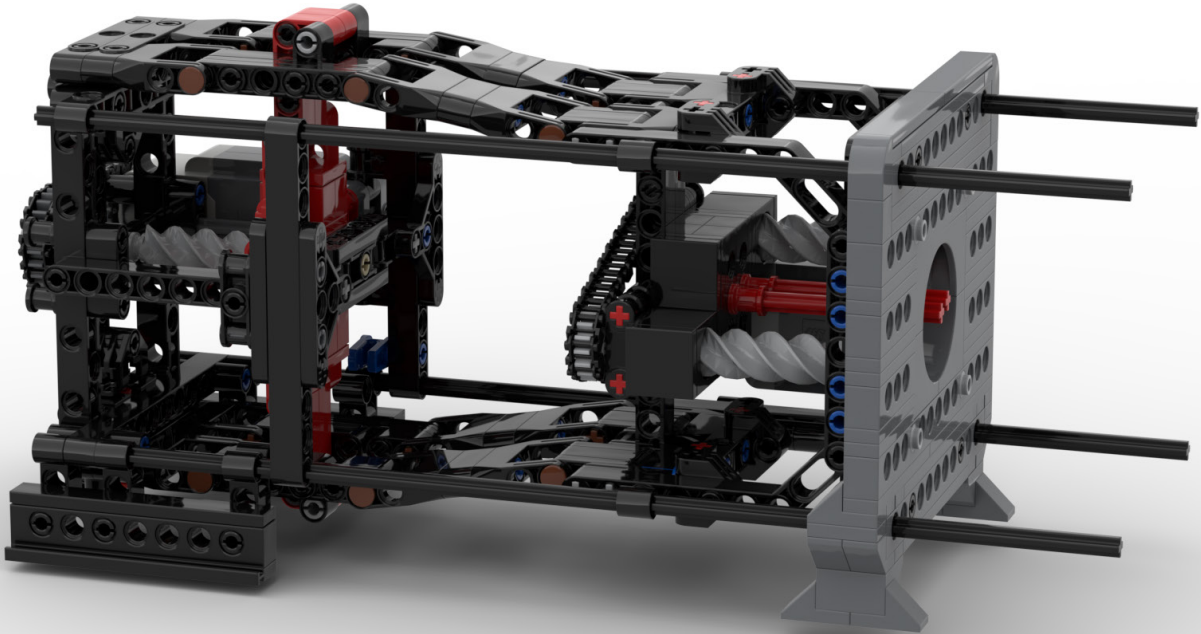
didactobricks.com offers miniature models of industrial production machines built from standardized components compatible with LEGO® and LEGO® Technic systems. The models are independently designed to replicate real-world industrial processes in a visually and technically illustrative way. Following the principle – **build · watch · understand** – users gain a playful and interactive understanding of mechanics, electronics and process thinking.

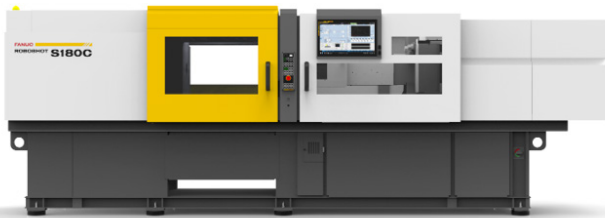
Rediscover what once inspired you – and transfer it directly into your professional environment.



Daniel Armbruster | didactobricks.com

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FANUC

Experience the original: www.fanuc.co.jp/en/product/roboshot/

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