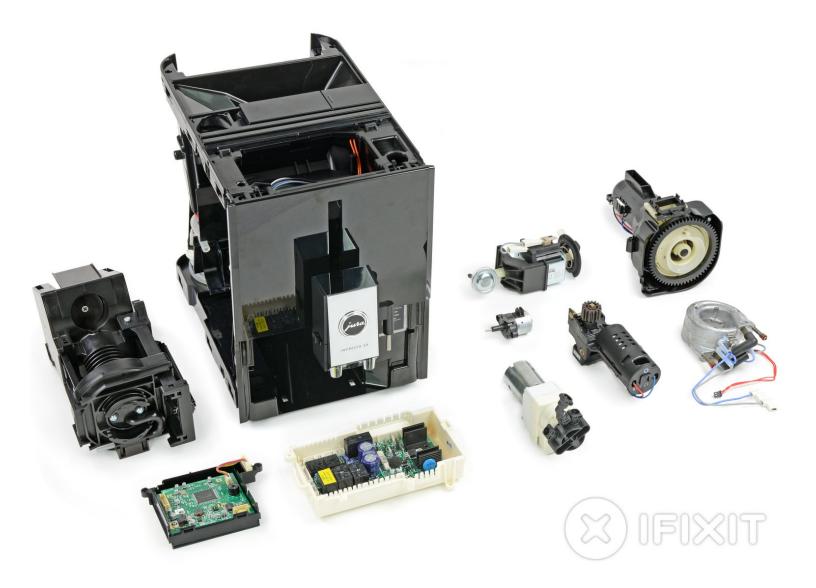


Jura Impressa A9 Teardown

Mid 2016 we discovered new terrain and took apart the Jura Impressa A9 coffee maker.

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INTRODUCTION

Look alive! We are going to tear down the Jura Impressa A9—your award-winning machine for your favorite cup 'o Joe.

What's more annoying than arriving at the office looking forward to a nice latte macchiato doppio and the machine won't grind or brew, or fails to steam the milk properly? Time to summon your last caffeine reserves and fix that source of acuteness of mind. It's teardown time!

What's the buzz about? Find out by following us at <u>Facebook</u>, and be sure to keep us up to speed by sharing *your* latest repair stories on <u>Instagram</u> and <u>Twitter</u>!

FOOLS:

- Spudger (1)
- Heavy-Duty Suction Cups (Pair) (1)
- Heat Gun (1)
- Oval Drive Bit (1)
- Manta Driver Kit 112 Bit Driver Kit (1)
- T15 Torx Screwdriver (1)
- Jimmy (1)
- Tweezers (1)
- Mini Locking Pliers (1)

Step 1 — Jura Impressa A9 Teardown



- This machine cranks out caffeine at the touch of a button screen. Here are some of the highlights straight from Jura:
 - Touchscreen display
 - Twelve specialty coffees
 - High efficiency grinder
 - Height-adjustable dual spout with fine foam technology



- First things first—before we go for guts and glory we start with the basic, "user-replaceable" parts.
- Removing the drip tray at the front and the water tank in the back is a cinch.
 (i) This can *probably* be performed half asleep, even before having your first cup in the morning.



- Next up, we remove the Jura cover plate with a quick counterclockwise twist and find ourselves in an awkward situation...
- This oval-headed screw isn't unique, but it's a rarity for sure. We had to dig through our 64 Bit and Macro Bit Kit before finding the right Oval bit in our Universal Bit Kit. If you just need the single Oval bit <u>we have it here</u>.
 - We were prepared for such an obstacle this time around, but finding security screws (when a simple Phillips could do the job) is always frustrating.
- With the security screw defiantly removed, we slide up the side-panel locking latch and move right along.



- Even with the latch released, the side panels don't want to budge, so we turn our attention to the top of the case for more clues.
- Our slim and sturdy <u>Jimmy</u> comes in handy to handle the mechanism on both sides beneath the cover plate.



- As a short intermezzo we take a look at the display which seems to have some kind of service port to gather information in case of a malfunction.
- We flip it over, unscrew two small Phillips screws and discover the brains of this piece of modern coffee technology:
 - Renesas <u>R5S72660W144FP</u> 32-bit microcontroller
 - Macronix <u>MX25L12835F</u> 128Mb serial multi I/O NOR flash memory
 - Unisonic Technology MC34063A DC-DC converter
 - STMicroelectronics <u>L7805CV</u> 1.5 A voltage regulator
 - Oscillator



- Now all we have to do is simply grab a hold on the machine, poke the top latch, release the lower clasp, then slide the side panel out to the back. Right?
 - (i) Despite all poking, prodding, doing the hokey pokey *and* turning ourselves around, the panel refuses to move.
- Left with few options, we bring out the big guns to help negotiate our way inside.
- With the right application of heat and strength, we finally manage to muscle the glass panel off the machine.

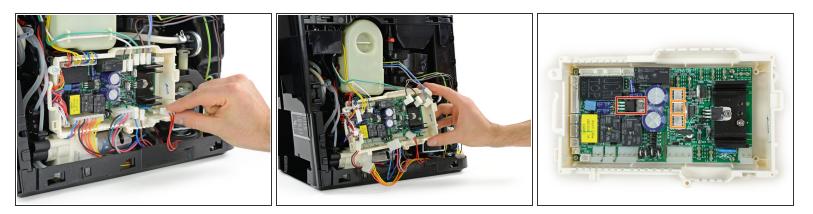


- Finally, with no glass panel to obfuscate its clip-in mechanism, we can see exactly where to focus our efforts.
- The second time around our four-handed effort pays off and ... et voilà, off comes the side panel.
- No more heat gun drama on the other side—we can safely add this to the list of teardown skills we've mastered.

Step 8

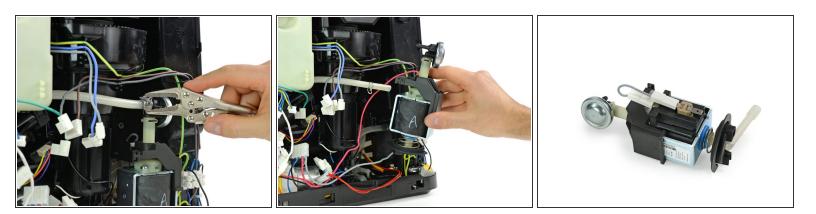


 After all this hustle we're relieved to find a handful of Torx screws securing the brewing unit on the machine's port side.

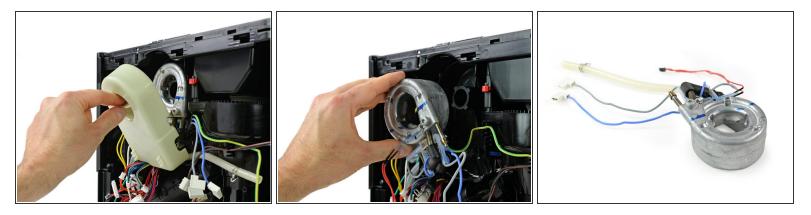


- Having found the brain behind the display, this would be the heart of the machine, providing power to every component.
- Removing those colorful connectors and three Torx screws lets us get our hands on this junction.
 Getting those back on in the right order <u>will be a challenge</u>, so we take a reference picture.
- STMicroelectronics <u>L7805CV</u> 1.5 A / 5 V regulator
- ON Semiconductor (formerly Fairchild Semiconductor) MOC3062M triac driver optocoupler

Step 10

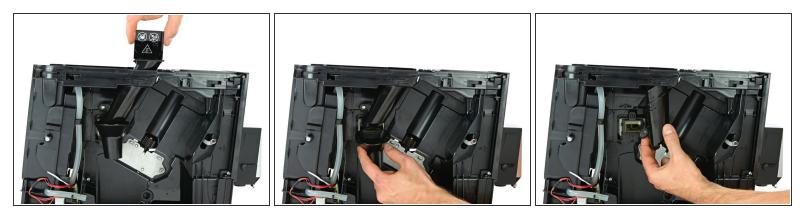


- Next we focus on the pump. After opening the metal clamp we unplug the hose running from the pump to the thermoblock.
- The tube at the bottom can simply be pulled off by hand when taking out the unit.

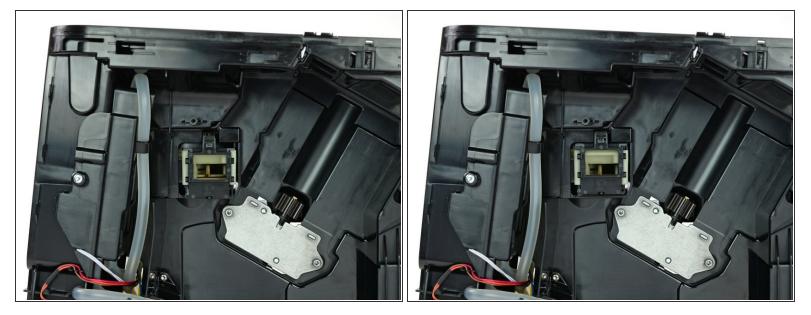


- We follow the flow and remove the cover of the thermoblock which is secured by small plastic clips.
- The thermoblock itself can be taken out by rotating it counterclockwise no screws for this little nautilus.

Step 12

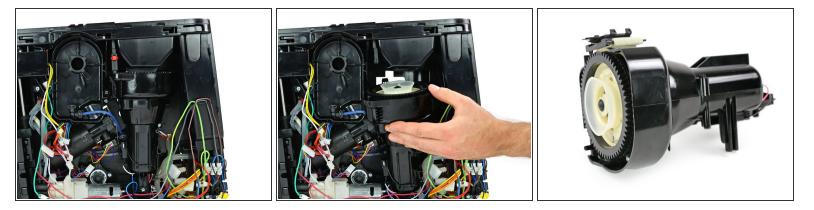


- On our way to taking out the grinder we first have to take a look at the other side of the machine.
- Here we will remove the powder chute for pre-ground coffee as well as the funnel and the guide tube for the powder chute.

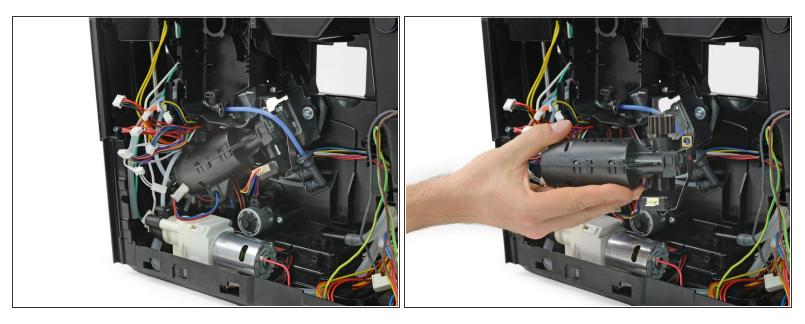


• This reveals a small plastic frame which needs to be moved upwards to unlock the grinder.

Step 14

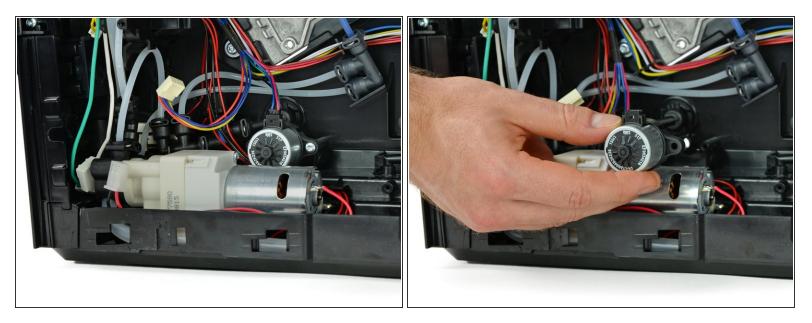


 Back on the dark side of the moon the packed side of the machine we remove a small pin and three Torx screws to make the grinder pop out.

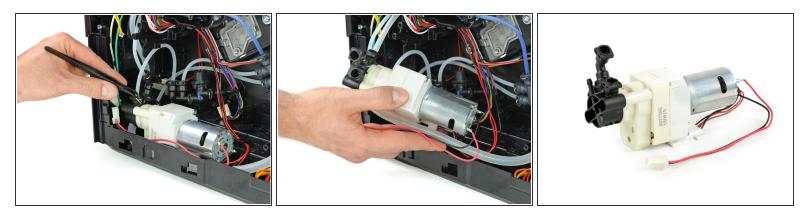


• The gear motor with its encoder attached is fixed with only two Torx screws.

Step 16



• The connector of the drainage motor can easily be unplugged. Two more familiar Torx screws come loose and the motor is free.



• The ceramic valve is a little bit more tricky to get out. We need to remove some small tubes as well as two screws from the bottom where we also have to handle a pair of plastic notches to finally slide it out.



- With the bulk of the modules spread across our teardown table, the remaining guts are just a few hoses and pipes. We've earned a cup of coffee and the Impressa A9 has earned a repairability score of 7 out of 10 (10 is the easiest to repair):
 - The coffee maker is built with modular components that can be maintained separately. All screws inside are standard Torx.
 - There are no adhesives or one-way-clips used inside the machine. However the side panels with their glass front and tiny, invisible hooks are a major drag (even authorized technicians might struggle at this point).
 - The oval head screw behind the logo plate is one proprietary screw too many. The sole purpose of it is to keep you out.
 - There is no official documentation for repairs of internal components.