



# Suzuki FA50 Moped Teardown

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## INTRODUCTION

My 1984 Suzuki FA50 was exhibiting some interesting problems. Although it ran fine a year ago, I could not get it running for the life of me. The problem was most likely a stuck throttle cable that I unstuck using some brute force. However, I figured it would also be nice to get my hands dirty and do an overhaul of the carburetor and engine. So here it is!

Note: The teardown was done backwards. I already disassembled the moped, and then took pictures reassembling it together. You may notice that some parts look new -- it's because they are.

Note #2: I figured it would be good to ring in the new year with a solid teardown, so I published it right on 12:00 AM PST, January 1, 2010 :)

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### TOOLS:

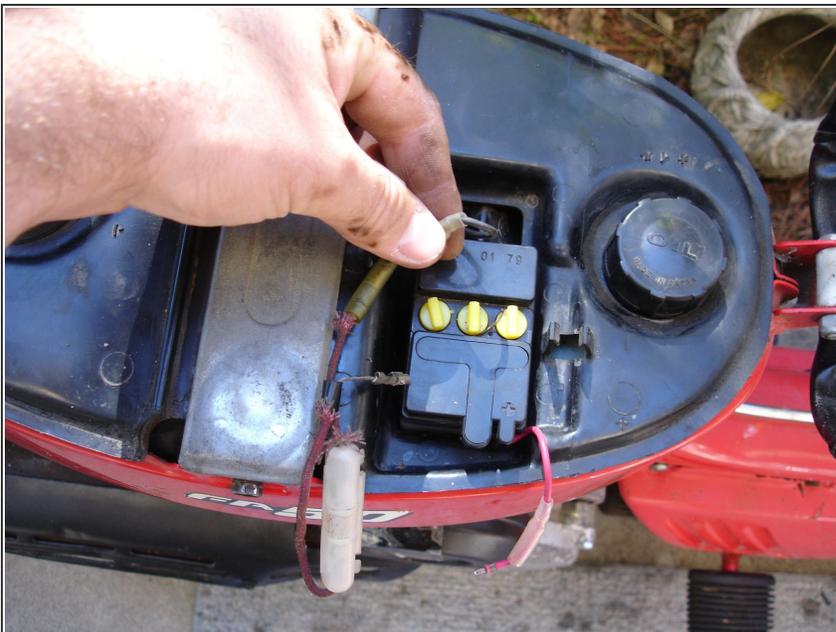
- [14 mm socket](#) (1)
  - [17 mm Socket Wrench](#) (2)
  - [8" Needle Nose Plier](#) (1)
  - [Phillips #2 Screwdriver](#) (1)
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## Step 1 — Suzuki FA50 Moped Teardown



- There's no rage against *this* machine.
- Looks great, except it doesn't run.
- Its 50 cc engine lets me go downhill at almost 28 MPH when it does run. Uphills, not so much. Depending on the hill (and my head start), I may or may not have to walk it up.
- ⓘ The seat advertises "185 LB max." In the USA??
- ⓘ The above weight limit can be used in a "Yo mamma" joke. Note that I said *can be*, and not *should be*.

## Step 2



- ⚠ Safety first. Disconnect the battery and store it in a safe place.
- ⓘ The battery's readily accessible underneath the seat.

### Step 3



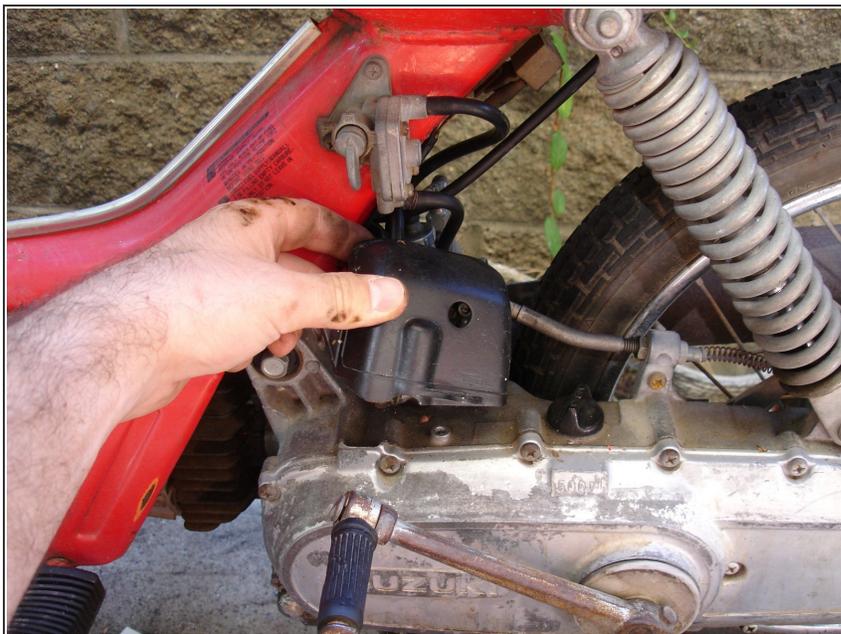
- In retrospect I figured out i that I didn't need to remove the exhaust cover, but what the heck... When in Rome, right?

### Step 4



- Took off the air intake box.
- That's contractor-grade 3M packing tape holding the airbox together. Only the best for my moped.

## Step 5



- I went to the other side of the bike and removed the carb/oil pump protective cover.

## Step 6



- The foot rest came off next, in order to gain access to the engine and spark plug.

## Step 7



- While down there, I unplugged the spark plug cover.

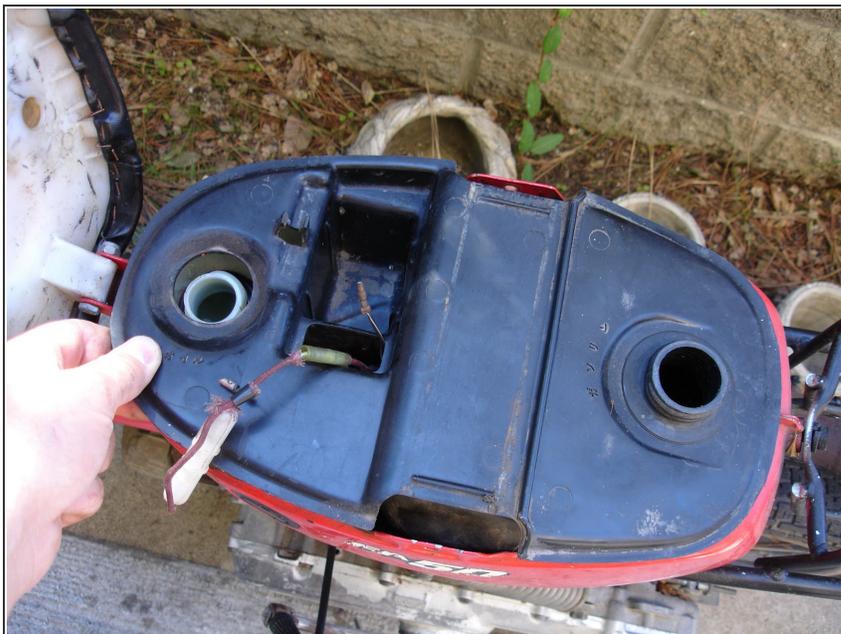
## Step 8



- I then proceeded to access the wiring underneath the gas tank.
- ⓘ The wires needed to be disconnected in order to remove the frame away from the engine/crankshaft.
- First I removed the protective brace on top of the oil/gas tanks using a 10 mm socket wrench.

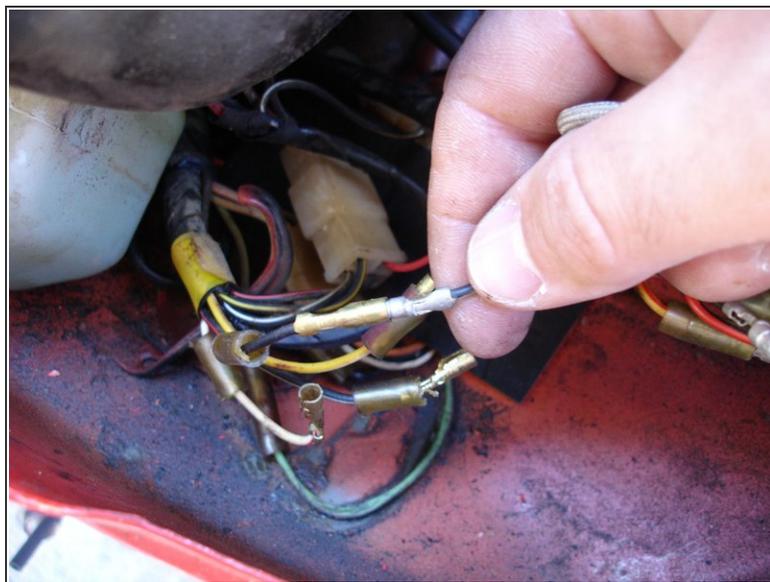
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## Step 9



- I had to take off both oil and gas caps in order to remove the plastic protective cover.

## Step 10



- I set aside the fuel tank and bam! -- the wires were ready to be disconnected.
- The wires must have been minding their own business since '84... Separating them was quite a challenge. Thankfully they had those round connectors on them, so I didn't have to solder or crimp anything when reassembling the moped.

## Step 11



- I then unplugged the emergency fuel valve .
- ⓘ The valve should remain in the "On" position while working on the moped.

## Step 12



- I paused for a minute to enjoy a cold cup of Diet Coke, and to drain all the 2-cycle oil...
- I got the Goliath "freezer" mug in Six Flags Magic Mountain about 6-7 years ago. Best investment I ever made, aside from marrying the wife. It's the gift that keeps on giving!
- Ikea bowls come in quite handy. Turns out there was enough 2-cycle oil to fill the entire bowl to the brim!

## Step 13



- I had a difficult time figuring out what I was doing in these pictures. According to the manual, I was removing the oil pump cover and oil hose.

## Step 14



- Unscrewing the smaller valve, which I believe to be the carburetor choke cable.
- My culprit resides beneath the carburetor top cover. Even though I reassembled the moped, I'll have to investigate the throttle cable going into the carburetor.

## Step 15



- Rear brake gets disconnected next. The cable needs to be free since the brake lever will come off with the rest of the frame.

## Step 16



- The rear spring gets unsprung using a 14 mm socket wrench.
- ⚠ Disconnecting the spring may be potentially dangerous, as it may be under tension.
- Nothing crazy happened when I disconnected it, however.

## Step 17



- Finally, the large frame screw can be removed. This is the last piece of hardware holding the frame to the rear wheel / engine.
- I had to use two 17 mm wrenches -- a socket on one side, and a ratcheting wrench on the other.

## Step 18



- And just like that, the frame comes off!

## Step 19



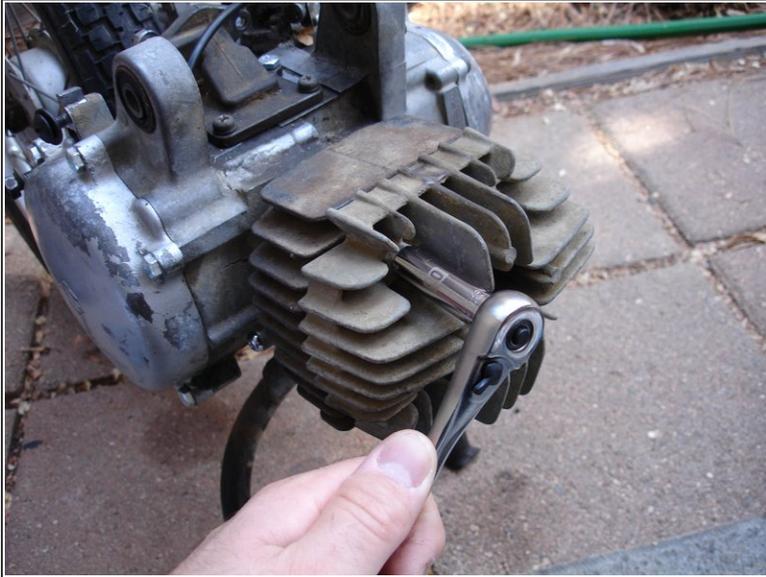
- A 12 mm and 10 mm hex socket take care of the muffer.

## Step 20



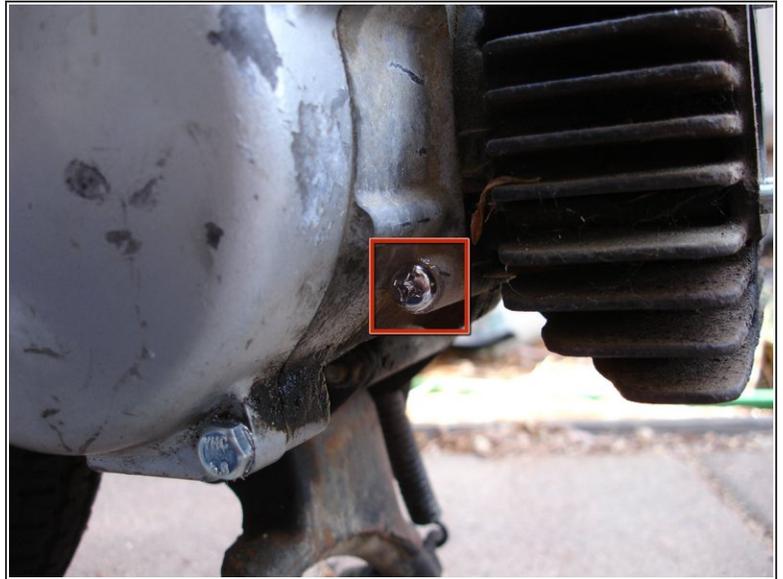
- Now on to the engine.
- Spark plug comes out with a strong flick of the wrist.
- The plug looked like it was the original one that came with the moped. Dirty dirty!

## Step 21



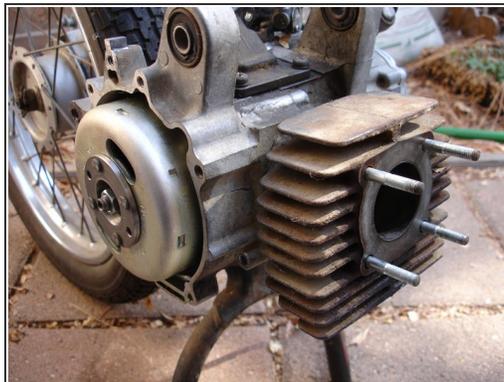
- I continued by removing the front part of the engine using a 10 mm socket wrench. I found plenty of buildup inside.

## Step 22



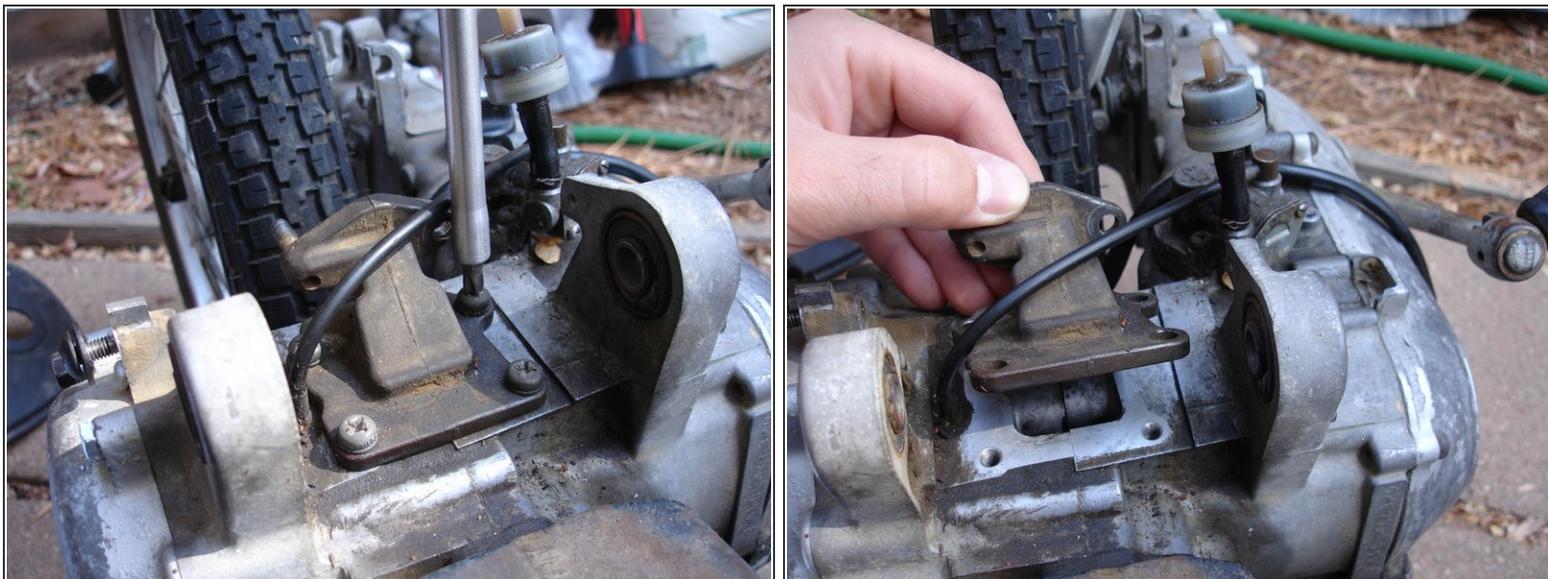
- I wanted to see what a "flywheel magneto" looked like, so I decided to remove this cover. I figured anything named after an X-Man is worth a look...
- I stripped the Phillips originals while taking the cover off. I replaced them with appropriately-sized 20 mm hex-head screws.
- This is a 65 mm replacement I ordered online, along with news seals and stuff.

## Step 23



- Some shots of the engine...

## Step 24



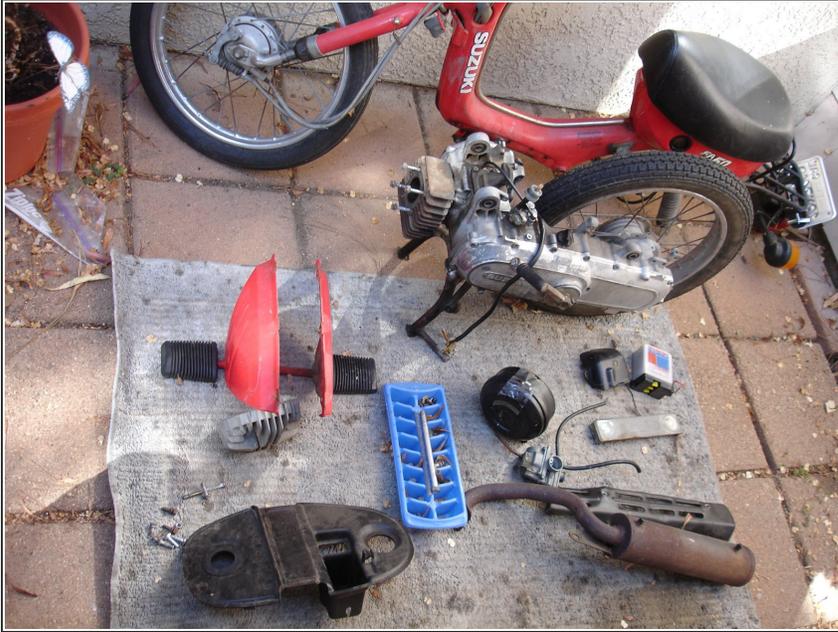
- The reed valve comes right off. You can see the engine internals from the hole -- cool!
- ⓘ I was careful not to accidentally put any crap inside the engine. I figured the Shuttle wouldn't run well on dirt and Cheerios.

## Step 25



- The reed valve is a very important part of the moped, according to the service manual. The metal bars have to be bent a certain way, and other stuff.

## Step 26



- I had quite a difficult time shooting a "final layout" shot. I gave up after 5-10 pictures; this one was the best of the bunch.
- That's it! Hope you enjoyed my teardown!