

Teach Resistbot to send a message to a US Governor

Resistbot lets any American easily write a message to their governor. After you teach Resistbot to use a governor's official web contact form, Resistbot will be able to deliver messages immediately to that governor. You'll have made it faster and easier for everybody to be heard in local politics.

Background

After the Resistbotter finishes writing their message, Resistbot takes care of delivering the message to the governor. In order of preference, Resistbot will:

1. Use a headless browser to fill out the governor's official web contact form. This is the preferred method because it is immediate and free. Furthermore, governors themselves prefer to receive communication via their official web contact form.
2. If Resistbot does not know how to fill out the governor's web contact form, then Resistbot will send a fax via Twilio API. This is unreliable, slow, and costs Resistbot some money.
3. If Resistbot does not know how to fill out the governor's web contact form, and the governor does not have a public fax number, then Resistbot will send a physical mail via Lob API. This is extremely slow and costs Resistbot a lot of money.

This document describes how to teach Resistbot how to fill out a governor's web contact form. Our goal is for Resistbot to know how to contact every governor with their official web contact form so we can always ensure Resistbotters' messages are delivered immediately!

Part 1. Set up development environment

First, clone `resistbot/mercury` repo, then inside that checkout, clone `resistbot/contact-officials`:

```
git clone git@github.com:resistbot/mercury.git
cd mercury
git clone git@github.com:resistbot/contact-officials.git
```

We'll be writing a yaml file that describes the steps that Mercury can take to fill out a governor's web form. Before we start work on a new form config for a governor, let's make sure we're able to run through form submission for a test message for one of those existing forms.

From within `mercury` directory, replace YOUREMAIL with your actual email (i.e., me@example.com) and run the following:

```
./docker-build-local.sh && \  
docker run --rm -it --shm-size=1024m resistbot/mercury:local \  
  sh -c "python form-debugger.py --email='YOUREMAIL' \  
--bioguide='R000584,ID'"
```

(The first time you run this, it will take a long time to build the docker container.)

This will use a headless browser to fill out the Florida governor contact form, and should eventually print that it succeeded in submitting a test message. (That is, you did actually just submit a real communication that the governor's staff will process. Be aware that as we test forms, we are generating real communication, so don't test successfully more than necessary.)

Part 2. Write a new form config!

The contact-officials repo has a list of 'issues' for the high-priority governors' form configs we've yet to write:

<https://github.com/resistbot/contact-officials/issues>

Pick your favorite open issue for a governor's form config and assign it to yourself. Let's say you've picked state with two-letter code XY. First, create a directory in `contact-officials/states` if one doesn't already exist.

```
mkdir -p contact-officials/states/XY
```

You'll create a `governor.yaml` file in this directory (i.e. `contact-officials/states/XY/governor.yaml`). Your new yaml file will follow a schema described in [this document](#) and [this document](#) but those references, while comprehensive, are quite dry and not necessary to read to get up to speed.

The best way to learn how to write a form config is to copy existing ones :) Take a look at the existing governor form configs:

```
$ find contact-officials -name governor.yaml
contact-officials/states/FL/governor.yaml
contact-officials/states/TX/governor.yaml
contact-officials/states/MD/governor.yaml
contact-officials/states/AZ/governor.yaml
contact-officials/states/OH/governor.yaml
contact-officials/states/WI/governor.yaml
```

I recommend opening the URL of the governor contact form you're going to write a config for, take stock of what kinds of fields it has, and then browse the existing governor.yaml configs and choose one that seems like a close starting point. Then copy it to your governor.yaml and begin editing it to match your governor's actual form.

Google Chrome's right-click->Inspect is very useful for figuring out form elements' names and ids:.)

To know what \$VARIABLES you can use, see SAMPLE_FORM_DATA in mercury/mercury/sample_data.py.

Continue to refer to existing governor.yaml files. For example, if you encounter the following challenges, check out how these configs handle it:

- Multi-step form (i.e. >1 click): CA/governor.yaml
- Choose topic (hard-coded "OTHER"): CA/governor.yaml
- Fill in subject line: MD/governor.yaml
- Choose title like "Mrs.": TX/governor.yaml
- Check a checkbox: TX/governor.yaml
- Recaptcha: AZ/governor.yaml

Or you can read to the reference schemas linked above ([this document](#) and [this document](#)).

Part 3. Test your new form config!

Change email and state XY (in three places in bioguide and form_config args) and run this:

```
--email='YOUREMAIL@gmail.com' docker container rm mercury; \
./docker-build-local.sh; \
docker run \
  --name=mercury \
  -it \
```

```

--shm-size=200m \
-v screenshots:/app/screenshots \
resistbot/mercury:local \
sh -c \
    "SCREENSHOT_ENABLE=true SCREENSHOT_CLEANUP_FILES=false \
    SCREENSHOT_LOCAL_PATH=/app/screenshots LOG_HUMAN=True \
    python form-debugger.py \
\
    --bioguide='XYG000001,XY' \
    --form-config='/app/contact-officials/states/XY/governor.yaml' \
    --debug" &&
rm -r /tmp/screenshots; \
docker cp mercury:/app/screenshots /tmp && open /tmp/screenshots/*

```

If the form submission does not succeed, this will copy a screenshot of what the browser window looked like immediately before each click. You can use that, along with the terminal output, to help understand what is going wrong. Iterate on your config until running that command succeeds.

Part 4. Test your new form config!

Quick, make a pull request! After it's reviewed (ping #message-delivery to find a reviewer) and merged to master, it will go live at the top of the next hour. Then congratulations!!! Resistbot users will now be able to write efficaciously to this governor!

FAQ

The form asks the user if they want a response?

Yes, we assume the user wants a response.

There is a required drop-down topic selector. What should we choose as the topic?

If possible, hard-code the "other" option. If not possible, fill in \$TOPIC; Mercury will then choose a random topic (this is obvs less ideal).

When fields are optional, should we fill them in anyway?

Yes. Except for user's phone number — it's a judgment call, but especially for state governors, where most correspondence becomes public record, we try to not fill in phone number unless it's required.

Any other questions, we'd love to help in #message-delivery on Resistbot slack :)

And please contribute to this FAQ and how-to as you learn more; anybody can edit.