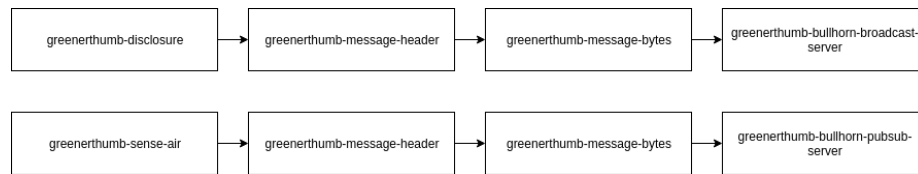# run Design

`run` contains implementations of runners for components. The runners are implemented by composition of subprograms which allows the to be flexibally modified without recompilation. Before running, `util/activate.sh` needs to be sourced from the project root after building the right component.
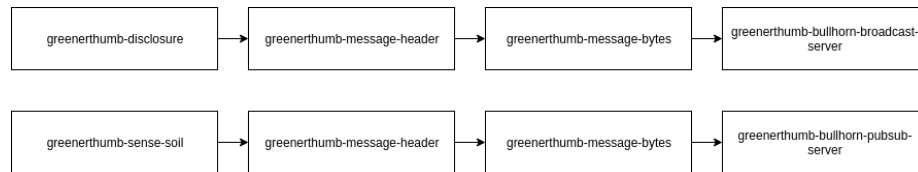
greenerthumb-run-air

`greenerthumb-run-air` runs the air temperature sensing device.
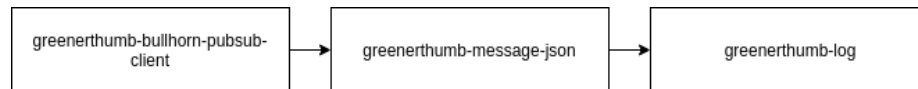
greenerthumb-run-soil

`greenerthumb-run-soil` runs the soil moisture sensing device.

greenerthumb-run-logger

`greenerthumb-run-logger` runs a logger which receives messages from a signle publisher.

greenerthumb-run-plotter

`greenerthumb-run-plotter` runs a plotter which receives messages from a single publisher.

```
┌──────────────────────────┐     ┌──────────────────────────┐     ┌──────────────────────────┐           ┌──────────────────────────┐
│ greenerthumb-bullhorn-    │ ──▶ │ greenerthumb-message-json │ ──▶ │    greenerthumb-fan        │ ──┬──▶ │    greenerthumb-plot       │
│      pubsub-client        │     │                           │     │                            │   │     └──────────────────────────┘
│          client           │     │                           │     │                            │   │
└──────────────────────────┘     └──────────────────────────┘     └──────────────────────────┘   │     ┌──────────────────────────┐
                                                                                                   └──▶ │    greenerthumb-log        │
                                                                                                        └──────────────────────────┘
```