Project Members

- Tallscreen

Idea

Make a clock which shows the time of the next train between two particular stations, based on data from the interwebs.

Hardware

I bought a clock from a pound shop, and removed the clock-module. I took it apart, and discovered that it seems to work by sending pulses through a coil which alternate in polarity every other second.

Since the clock will only be moving forwards, and usually only by 15-60 minutes at a time, I tried just driving the clock as fast as possible.

Connecting the two pins to an Arduino, I managed to increase the rotation speed so that one hour passes in 36-odd seconds. This is still a bit slow - if your next train is in an hour, you don't want to stand for 30 seconds before the clock displays this properly. I've decided to make a new pair of hands, and treat the second hand as a minute hand, and the minute hand as an hour hand, so I can drive them 60x faster.

Unfortunately, I can't work out how the original circuit made sure that the movement was clockwise. Currently, the direction it sets off in seems fairly random! :S

Software

Currently very basic. Created a “tick” function to advance by one second, which energizes the coil with a polarity which depends on whether it's an odd or even second.

Present Status

I've recently acquired a more expensive clock module. Hopefully this will be more consistent. I need to take it apart and investigate.

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