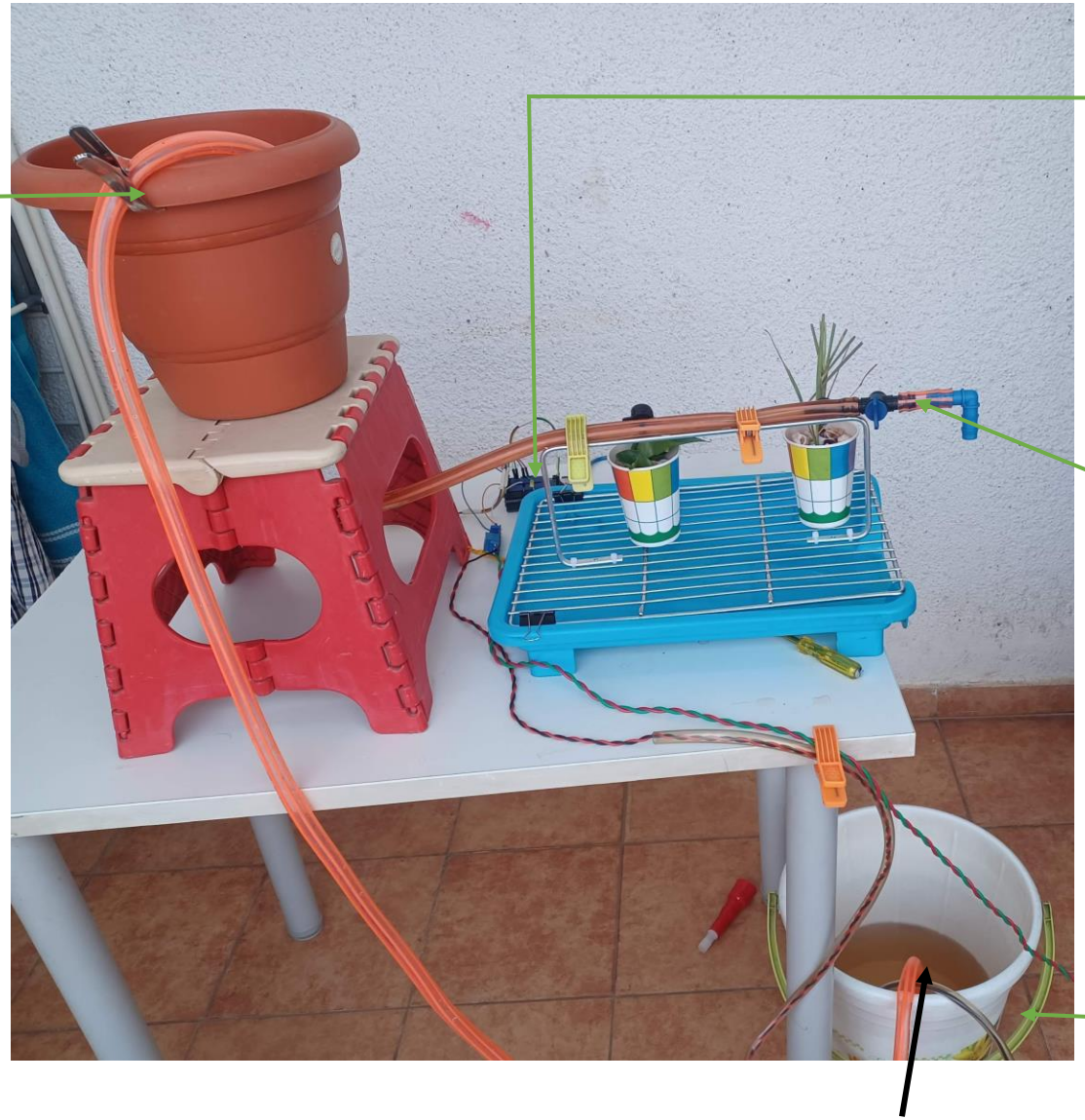
Buffer Reservoir:
Water is delivered from the main reservoir. This acts as a buffer to temporarily store water while irrigation is in progress.
Note: This reservoir must be at a height from the crops, which is proportional to the length of the pipe, or the number of plants.



Arduino UNO:
The computer that controls the water pump. It is attached to a RTC (Real Time Clock). It's like a clock that keeps track of the time even when the power is off. It has a small battery that keeps it running all the time. The Arduino can "ask" for the time from the RTC

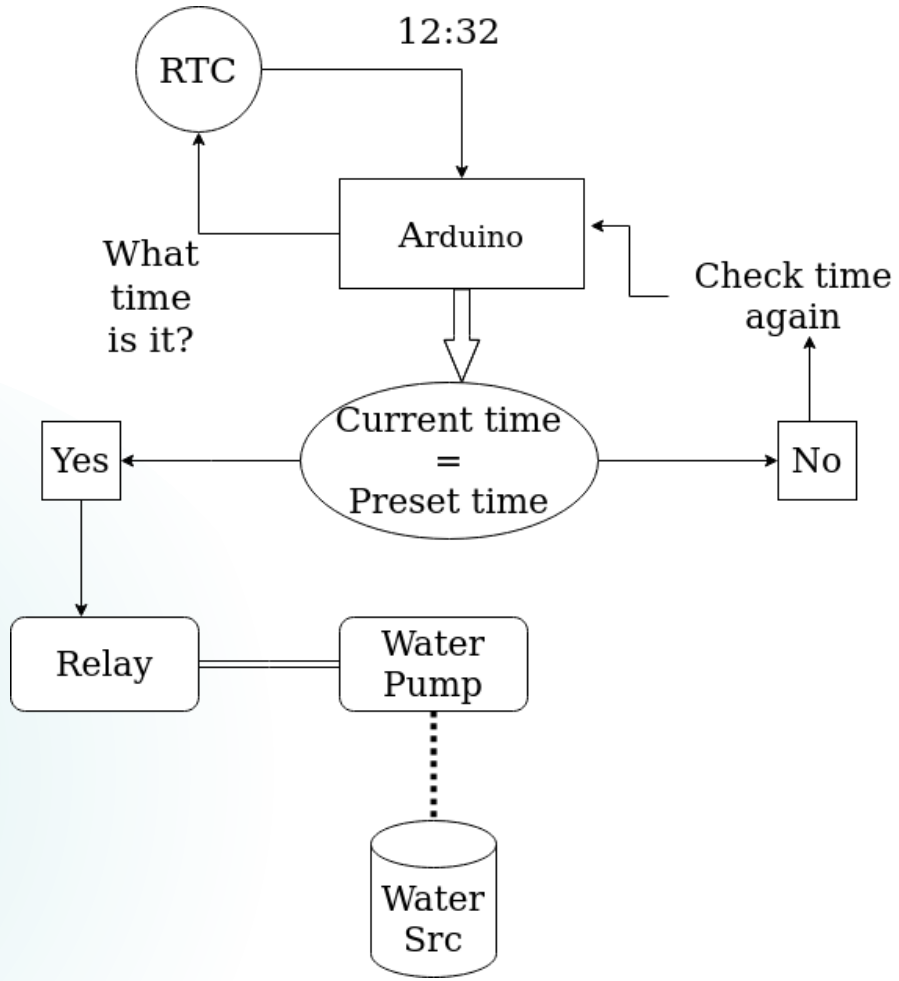
Irrigation Pipe:
This pipe runs above the entire field, while still reaching all the plants.
It also has irrigation holes attached over all plants.

Main Reservoir:
All the water in the system is stored here. There won't be a risk of flooding as at any given time, only a limited amount of water is present.

Water Pump and Pipe

Salient points

1. Fail-Safe
2. Scalable
3. Reliable
4. Configurable
5. Cost Effective


RTC
12:32
Arduino
What time is it?
Check time again
Current time = Preset time
Yes
No
Relay
Water Pump
Water Src

List of Components Used

- Arduino UNO
- RTC
- Relay
- 240v Dessert Cooler Pump
- Drip Irrigation pipes
- Reservoir