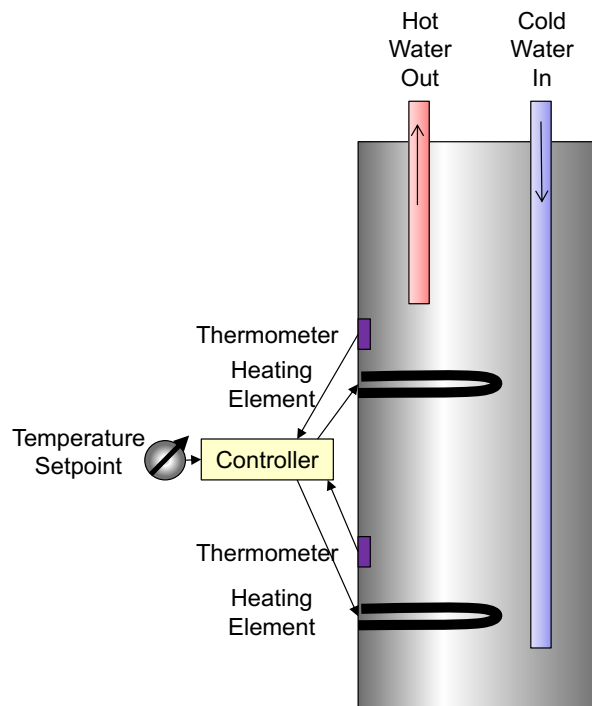


## Introduction to Embedded Systems Design – Exercise

Consider a controller for an electric water heater (as shown below) as an embedded computer system.



1. What are the inputs devices?
2. What are the outputs?
3. Name at least two safety features to include, and specify what hardware and/or software is needed for each.
4. Describe a useful feature which could you add in software without requiring additional hardware.
5. Describe two useful energy-saving features which could you add in software if the controller could keep track the time of day.
6. Describe a useful feature which could you add in software if the water heater included an internet connection.