Starter worksheet answers

Remember the Intelligent Cooling fan that we have been working on?

It did this:

The intelligent cooling fan turns on if the ambient temperature is warm and the solar store is more than half full, then off if the temperature is cold or the solar store is not full enough. In addition the program puts a message on the micro:bit which says YES when the fan is on and NO when the fan is off. Buttons A and B are provided for an override that allows you to request the fan manually. B overrides and A cancels the override.

In the box below describe any small alterations that you could make to your program.

| Modifications that I could make:   1. I could swap it around so that the fan comes on when it's cold and goes off when it’s hot. 2. I could change the micro:bit message from YES/NO to smiley/sad. 3. I could change the HOT temperature to a higher threshold e.g 26 4. I could combine the energy meter and intelligent cooling fan programs, so that I can see how much energy is on the solar store. |
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| New programs that I could make with the Monks make solar kit:   1. I could create a program that turns the low energy light on only when the solar store is up to half full. 2. I could create a program that puts a small heart on the micro:bit when the solar store is quarter full, then a large heart when it is half full then a sunshine when it is completely full, at which time the low energy light comes on and stays on until it is back to quarter full. 3. I could create a program that powers the fan for 20 seconds every five minutes. |
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https://microbit-micropython.readthedocs.io/en/v1.0.1/tutorials/images.html#animation