NO

YES

NO

YES

NO

YES

NO

Check if there is incoming serial data via bluetooth

YES

->Set the relay state to LOW ->Turn off the relay, ->Disable the PIR motion sensor, ->Print "Bluetooth OFF command received"

->Set the relay state to HIGH ->Turn on the relay, ->Enable the PIR motion sensor, ->Print "Bluetooth ON command received"

If the received data is "1"

Delay for a short period

* Turn off the relay
* Set the relay state to LOW
* Turn off the buzzer
* Print "OFF"

Check if the delay time has passed and the relay is on

Check if the PIR motion sensor is enabled

Initialize variables and pin configurations