Requirements:

Low Level Requirements:

ID	Description
HL1_LL1	If the person is detected the PIR sensor should give a active high signal
HL1_LL2	If the person is not detected the PIR output signal should remain in voltage low state.
HL2_LL1	If PIR sensor gives an active high signal the BBB should give a active high output to the channel 1 relay input.
HL2_LL2	If PIR sensor does remain in low state, the input signal to both the relay channel should be 0.
HL3_LL1	The BBB is expected to in delay mode for 10 secs allowing the person to pass the exit. And the output pin 26 and 44 is both in low state.
HL4_LL1	After the BBB delay the PIR sensor check the presence of person.
HL4_LL2	If the PIR sensor still detects the presence of person, the BBB is expected to keep the GPIO 26 and 44 in low state.
HL4_LL3	If the PIR sensor detects no presence of human, then the PIR gives active high signal to BBB.
HL4_LL4	If BBB receives an active low, then active high signal is sent to the relay channel 2 through GPIO pin 44. And the motor turns anticlockwise closing the door.

Table 1: Low Level Requirements.

High Level Requirements:

ID	Description
HL1	PIR sensor should detect any obstacle/Person.
HL2	If the presence of human is detected the door opens.
HL3	The PIR should halt for the person to pass.
HL4	The System should close the door after the person exits.

Table 2: high Level Requirements.