

At final checkoff, operation of the RFID reader will be demonstrated by waving 3 different ID cards in front of an RFID transceiver: one without trusted credentials, and two with trusted credentials. The RFID reader will illuminate an LED indicating activity. The ID card without trusted credentials will prompt generation of an “ACCESS DENIED” message on the vga display screen. The two ID cards with trusted credentials will prompt generation of an “ACCESS GRANTED” message as well as identifying information for the user on the vga display screen.

Code module descriptions

- *driver module*
 - Upon button press, enables transceiver to send interrogation signal.
 - Receives ID card data from transceiver.

- *database module*
 - Compares incoming ID card information with that stored in database ROM.
 - Based on success or failure of comparison, determines access level.

- *vga_display module*
 - Failure signal from driver module prompts printing of "ACCESS DENIED" string on screen.
 - Upon success, print "ACCESS GRANTED," user ID number, user name and user image from ROM on screen.

Operations to be demonstrated at final project checkoff:

- *Verify successful implementation of the **driver module** via:*
 - Holding up ID card to the transceiver and pressing activation button; the LED on the transceiver will illuminate, indicating interrogation of the card.

- *Verify successful implementation of the **database module** via:*
 - Manually inserting working and non-working ID numbers into driver module code; use Verilog testbench and/or run and display full program to determine if correct id, name and image data are successfully output to the vga display module.

- *Verify successful implementation of the **vga_display module** via:*
 - Observing display using both an ID card with trusted credentials and an ID card without trusted credentials.
 - Observing display upon accessing system using ID cards with different ID information.