

Create a Smart Home!

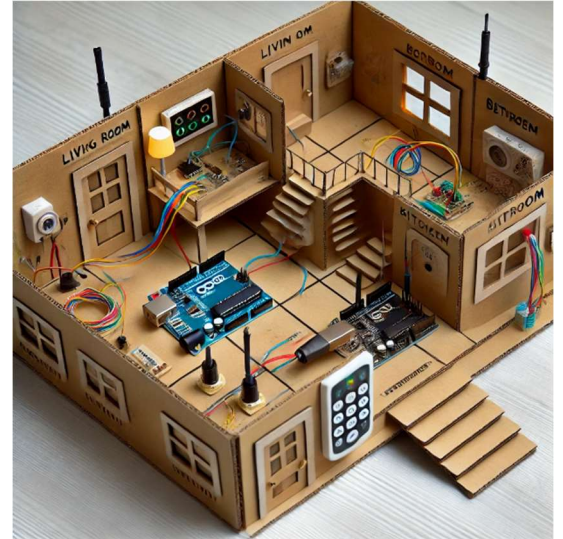
The world of the “Internet of Things” is growing every day. Your assignment is to create a mini floorplan of a house (in real life, out of cardboard!). In this floorplan you need to add either smart home features, or alarm system features, or both.

Smart Home Features?

- Motion sensing light activation
- Button to turn on lights throughout the home
- Automated curtains (button causes curtains to open/close)
- Voice-controlled activity. Ex: A light turns on when someone claps twice.

Home Security Features?

- When door is opened speaker starts blaring
- A security keypad that turns the light green when the correct code is entered
- RFID tags are used to “allow” entry. Either by literally having something in the way of the door that is removed when a tag is scanned, or a light turning from red to green.



Marking Rubric (this work may be done in groups of 2, as long as both members are capable of explaining all the work done):

- Level 1
 - o You have created a physical floorplan out of cardboard that has at least 3 rooms and a door
 - o There is at least one light
- Level 2
 - o You have at least one working feature that clearly interacts with the environment
 - IE: A button, door or sensor that triggers some kind of behaviour
- Level 3
 - o You have at least two working features
- Level 4
 - o You have at least three working features
 - o A significant effort has been made to make a clean and presentable demonstration
 - Meaning, wires are taped and tucked away, etc.
 - Cardboard is cut cleanly and secure