## Wiring a House Challenge



Task: You will be wiring THREE rooms in a house using series & parallel circuits.

## <u>Guidelines:</u>

- You will set up your house in GIZMO Circuit Builder first <u>THEN</u> build it using the following materials:
  - > Lightbulbs
  - 1 switch to shutoff lights from all the rooms
  - > Alligator clip wires
  - Power Pack

## House Requirements:

- SWITCH if you turn the switch OFF, ALL the lights in the entire house turn off
- ROOM 1 if you remove one light, all the lights in that room turn off but the other house lights stay on.
- ROOM 2 if you remove one light, the other lights in that room stay on <u>and</u> the rest of the house stay on
- **ROOM 3** 1 light is brighter than the others in the room
- ALL ROOMS must have a minimum of 3 lights



## Rubric:

Criteria	Mark
SWITCH - if you turn the switch OFF, all the lights turn off	0 1
<b>ROOM 1</b> – if you remove one light, all the lights in that room turn off but all other house lights stay on.	0 1 2
${\bf ROOM}~{\bf 2}$ - if you remove one light, the other lights in that room stay on and the rest of the house stay on	0 1 2
<b>ROOM 3</b> – 1 light is brighter than the others in the room	0 1 2
ALL ROOMS - must have a minimum of 3 lights	0 1
Stable wiring	0 1 2
TOTAL	/10

