**Wiring table for tutorial escape room “Damned amulet”.**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | cable trace: from | | | cable trace: to | | |  |  |  |  |
| cable marking | element reference | room | channel | element reference | room | channel | minimal requirements | recommended cable | electrical interface | description |
| **speakers** |  |  |  |  |  |  |  |  |  |  |
| I#A1.1 | A1.1 | C | - | A1 | GM | 1 | 2x4.0 |  | audio | general sound speaker |
| I#A1.2 | A1.2 | C | - | A1 | GM | 2 | 2x4.0 |  | audio | general sound speaker |
| I#A1.3 | A1.3 | A | - | A1 | GM | 3 | 2x4.0 |  | audio | general sound speaker |
| I#A1.4 | A1.4 | B | - | A1 | GM | 4 | 2x4.0 |  | audio | general sound speaker |
| **CCTV** |  |  |  |  |  |  |  |  |  |  |
| I#CAM1 | CAM1 | C | - | CCTV note.2 | GM | 1 | - | IVUE CPV- 40AHD | video | analog video camera |
| I#CAM2 | CAM2 | A | - | CCTV note.2 | GM | 2 | - | IVUE CPV-40AHD | video | analog video camera |
| I#CAM3 | CAM3 | B | - | CCTV note.2 | GM | 3 | - | IVUE CPV-40AHD | video | analog video camera |
| I#MIC1 | MIC1 | C | - | CCTV note.2 | GM | 1 | 3x1.5 |  | audio + 12VDC | active microphone |
| I#MIC2 | MIC2 | A | - | CCTV note.2 | GM | 2 | 3x1.5 |  | audio + 12VDC | active microphone |
| I#MIC3 | MIC3 | B | - | CCTV note.2 | GM | 3 | 3x1.5 |  | audio + 12VDC | active microphone |
| **electromagnetic locks** |  |  |  |  |  |  |  |  |  |  |
| P#ML1.1note.1 | ML1.1 | H-A | - | CS | GM | out-1 | 2x1.5 |  | 12VDC-RELAY-CONTROL | entrance door |
| P#ML1.2 note.1 | ML1.2 | A-B | - | CS | GM | out-2 | 2x1.5 |  | 12VDC-RELAY-CONTROL | between rooms A-B |
| P#ML1.3 note.1 | ML1.3 | B-C | - | CS | GM | out-3 | 2x1.5 |  | 12VDC-RELAY-CONTROL | between rooms A-C |
| P#ML2.1 | ML2.1 | B | - | CS | GM | out-4 | 2x1.5 |  | 12VDC-RELAY-CONTROL | cache in the chest |
| P#ML2.2 | ML2.2 | C | - | CS | GM | out-5 | 2x1.5 |  | 12VDC-RELAY-CONTROL | cache in the chest |
| **lighting** |  |  |  |  |  |  |  |  |  |  |
| P#L3.1 | L3.1 | A |  | CS | GM | pwm-1,2,3 | 4x1.5 |  | 12VDC-PWM-CONTROL | RGB led strip |
| P#L3.2 | L3.2 | B | - | CS | GM | pwm-4,5,6 | 4x1.5 |  | 12VDC-PWM-CONTROL | RGB led strip |
| P#L3.3 | L3.3 | C | - | CS | GM | pwm-7,8,9 | 4x1.5 |  | 12VDC-PWM-CONTROL | RGB led strip |
| P#L2.1 | L2.1 | C | - | CS | GM | pwm-10 | 2x1.5 |  | 12VDC-PWM-CONTROL | green led strip |
| P#L4.1 | L4.1 | B | - | CS | GM | out-15 | 2x1.5 |  | VAC-RELAY-CONTROL | 110/220V UV-lamp |
| P#L4.2 | L4.2 | C | - | CS | GM | out-6 | 2x1.5 |  | 5VDC-RELAY-CONTROL | laser |
| **buttons** |  |  |  |  |  |  |  |  |  |  |
| S#B1.1 | B1.1 | H | - | CS | E | din-1 | 2x0.75 |  | DIN-PASSIVE | start button |
| S#BE1 | BE1 | H | - | ML1.1 note1 | H-A | - | 2x0.75 |  | - | emergency exit button |
| S#BE2 | BE2 | A | - | ML1.1 note1 | H-A | - | 2x0.75 |  | - | emergency exit button |
| S#BE3 | BE3 | A | - | ML1.2 note1 | A-B | - | 2x0.75 |  | - | emergency exit button |
| S#BE4 | BE4 | B | - | ML1.2 note1 | A-B | - | 2x0.75 |  | - | emergency exit button |
| S#BE5 | BE5 | A | - | ML1.3 note1 | A-C | - | 2x0.75 |  | - | emergency exit button |
| S#BE6 | BE6 | C | - | ML1.3 note1 | A-C | - | 2x0.75 |  | - | emergency exit button |
| **sensors** |  |  |  |  |  |  |  |  |  |  |
| S#T1.1 | T1.1 | A | - | CS | GM | din-2 | 2x0.75 |  | DIN-PASSIVE | reed |
| S#T1.2 | T1.2 | A | - | CS | GM | din-3 | 2x0.75 |  | DIN-PASSIVE | reed |
| S#T2.1 | T2.1 | A | - | CS | GM | din-4 | 3x1.5 |  | DIN-ACTIVE | RFID panel |
| S#T3.1 | T3.1 | C | - | CS | GM | ain-1 | 2x0.75 |  | AIN-PASSIVE | photoresistor (LDR) |
| S#T3.2 | T3.2 | B | - | CS | GM | ain-2 | 2x0.75 |  | AIN-PASSIVE | resistive pressure sensor |
| S#T3.3 | T3.3 | B | - | CS | GM | ain-3 | 2x0.75 |  | AIN-PASSIVE | resistive pressure sensor |
| S#T4.1 | T4.1 | B | - | CS | GM | din-5 | 3x1.5 |  | DIN-ACTIVE | noise barrier sensor |
| **gadgets** |  |  |  |  |  |  |  |  |  |  |
| P#SG1 | SG1 | C | - | CS | GM |  | 3x1.5 |  | VAC-POWER-SUPPLY | smoke generator 220V power |
| S#SG1 | SG1 | C | - | CS | GM | out-14 | 2x0.75 |  | CIRCUIT-RELAY-CONTROL | smoke generator switch |
| S#G1 | G1 | B | - | CS | GM | din-6 | 2x0.75 |  | DIN-PASSIVE | sequence of reeds |
| S#G2 | G2 | B | - | CS | GM | din-7 | 2x0.75 |  | DIN-PASSIVE | reed |
| S#G3 | G3 | A | - | CS | GM | ain-4 | 3x1.5 |  | AIN-ACTIVE | output: 0V if no rotate, 3.3V if speed is maximum. |
| S#G4 | G4 | C | - | CS | GM | din-8 | 3x1.5 |  | DIN-ACTIVE | triggers 1 second impulse when resolved |
| S#G5 | G5 | C | - | CS | GM | din-9 | 3x1.5 |  | DIN-ACTIVE | triggers 1 second impulse when resolved |
| P#TV1 | TV1 | A | - | CS | GM | - | 3x1.5 |  | VAC-POWER-SUPPLY | power supply for TV and raspberry pi (RPI) |
| I#TV1 | TV1 | A | - | CS | GM | - |  | UTP/FTP | Ethernet | ethernet connection for RPI |

**Notes.**

1. Buttons BE1+BE2 / BE3+BE4 / BE5+BE6 are installed in the circuit with electromagnetic lock ML1.1/ML1.2/ML1.3 with normal closed (NC) contacts to provide an opportunity of emergency door opening if required. Make schematics as following:



2. CCTV isstrongly recommended to locate in the gamemaster room. CCTV contains a video recorder, power supply for cameras and microphones, VGA/HDMI monitor, mouse and headphones.