Option 1. LED light On/Off

List of electrical and hardware components:

1. Wires. For Breadboard connections it is recommended to have Du-Pont type Male-Female wire connectors.

2. 1 x Breadboard.
3. 1 x Red LED (5mm THT). LED1 on schematics

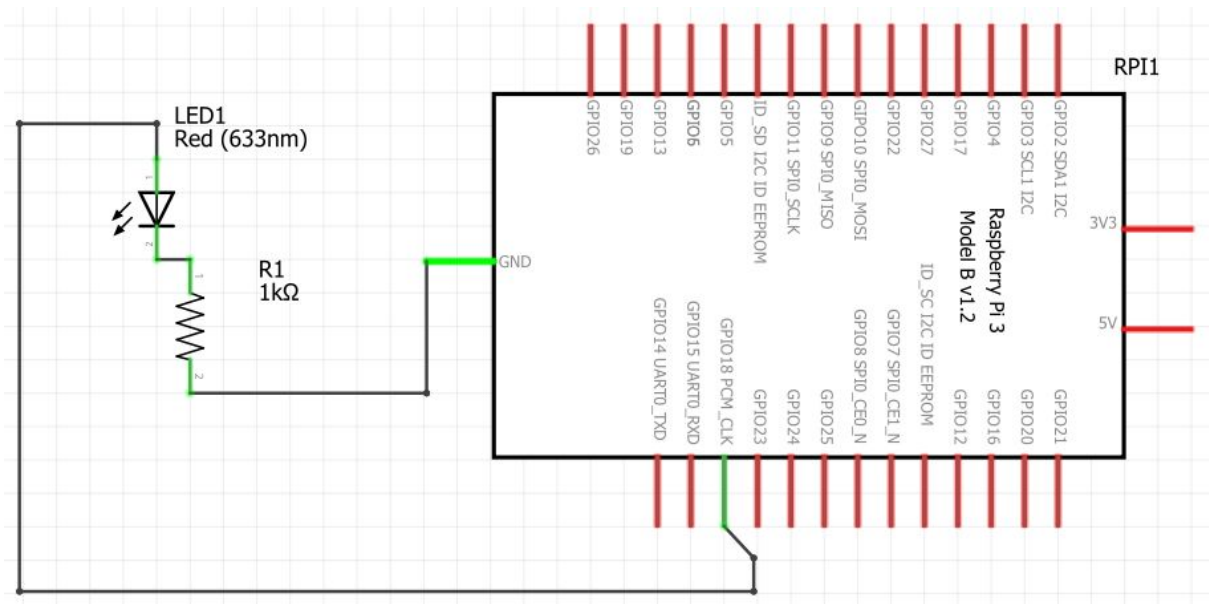4. 1 x 1kΩ Resistor (THT). R1 on schematics
    Variations:

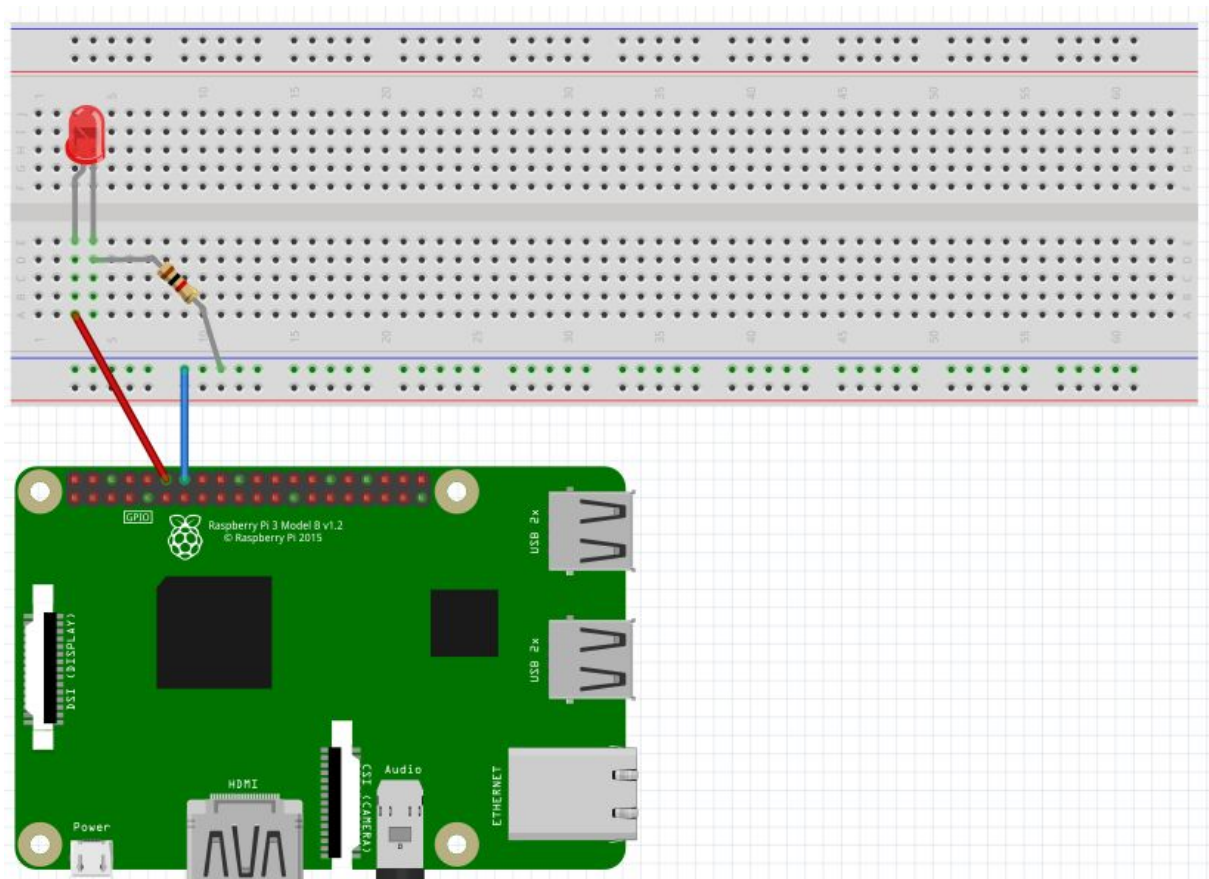5. 1 x Raspberry Pi model 3 or 4 mini computer. RPI1 on schematics

6. 1 x USB Power supply for Raspberry Pi.
7. 1 x MicroSD card with minimal 16GB capacity.
8. 1 x USB Keyboard. It will be used for the first time Operating system and software installation.
9. 1 x USB Mouse. It will be used for the first time Operating system and software installation.

Electrical schematic diagram

Breadboard diagram

Option 2. Text output on 16 x 2 LCD Display

List of electrical and hardware components:

1. Wires. For Breadboard connections it is recommended to have Du-Pont type Female-Female wire connectors.

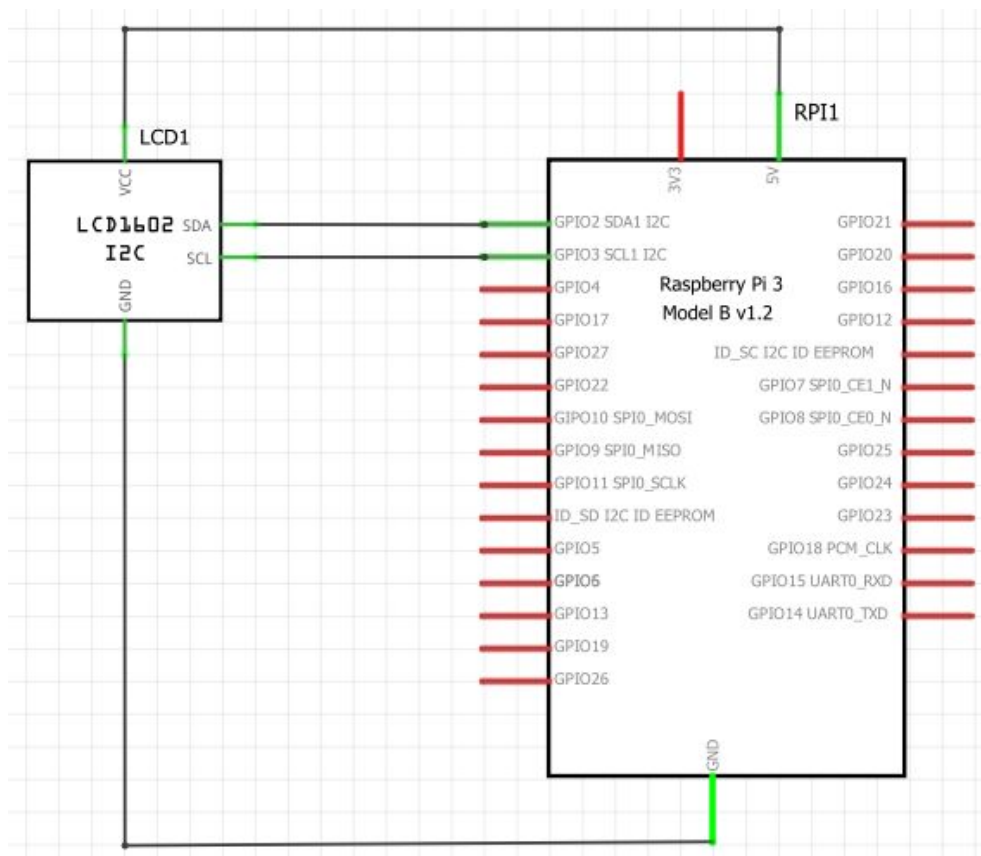
2. 1 x LCD 1602 I2C. LCD1 on schematics

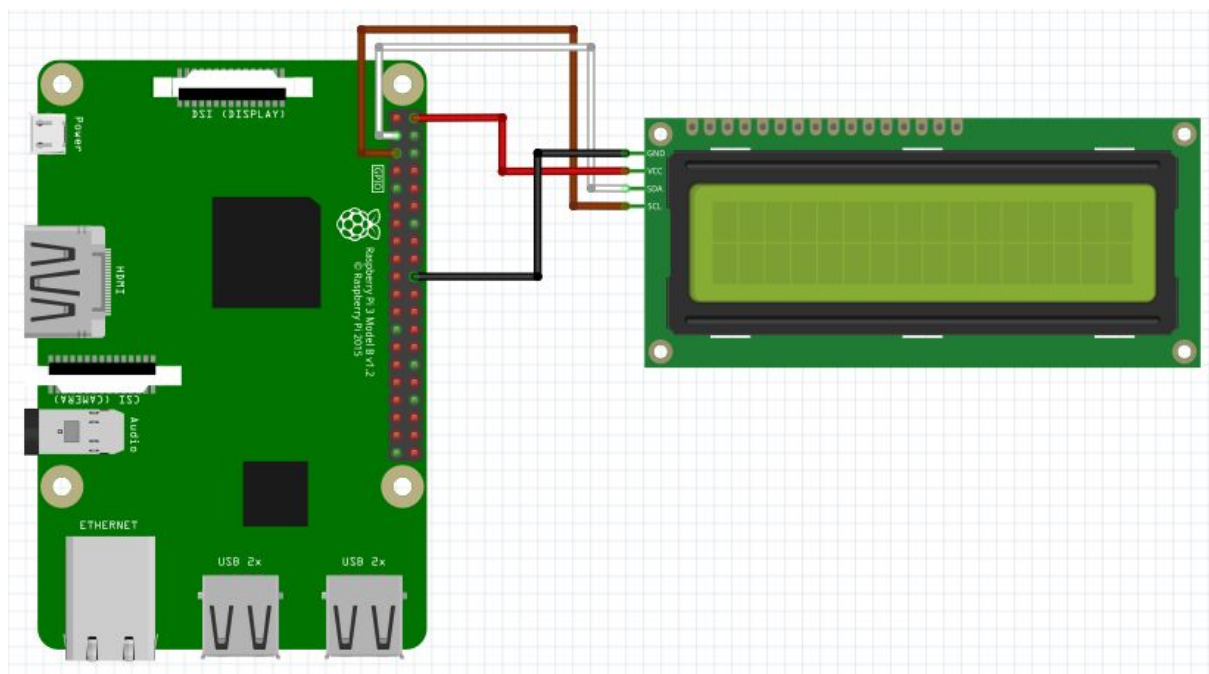3. 1 x Raspberry Pi model 3 or 4 mini computer. RPI1 on schematics

4. 1 x USB Power supply for Raspberry Pi.
5. 1 x MicroSD card with minimal 16GB capacity.
6. 1 x USB Keyboard. It will be used for the first time Operating system and software installation.
7. 1 x USB Mouse. It will be used for the first time Operating system and software installation.

Electrical schematic diagram

Breadboard diagram

Option 3. Servo motor

List of electrical and hardware components:

1. Wires. For Breadboard connections it is recommended to have Du-Pont type Male-Female wire connectors.
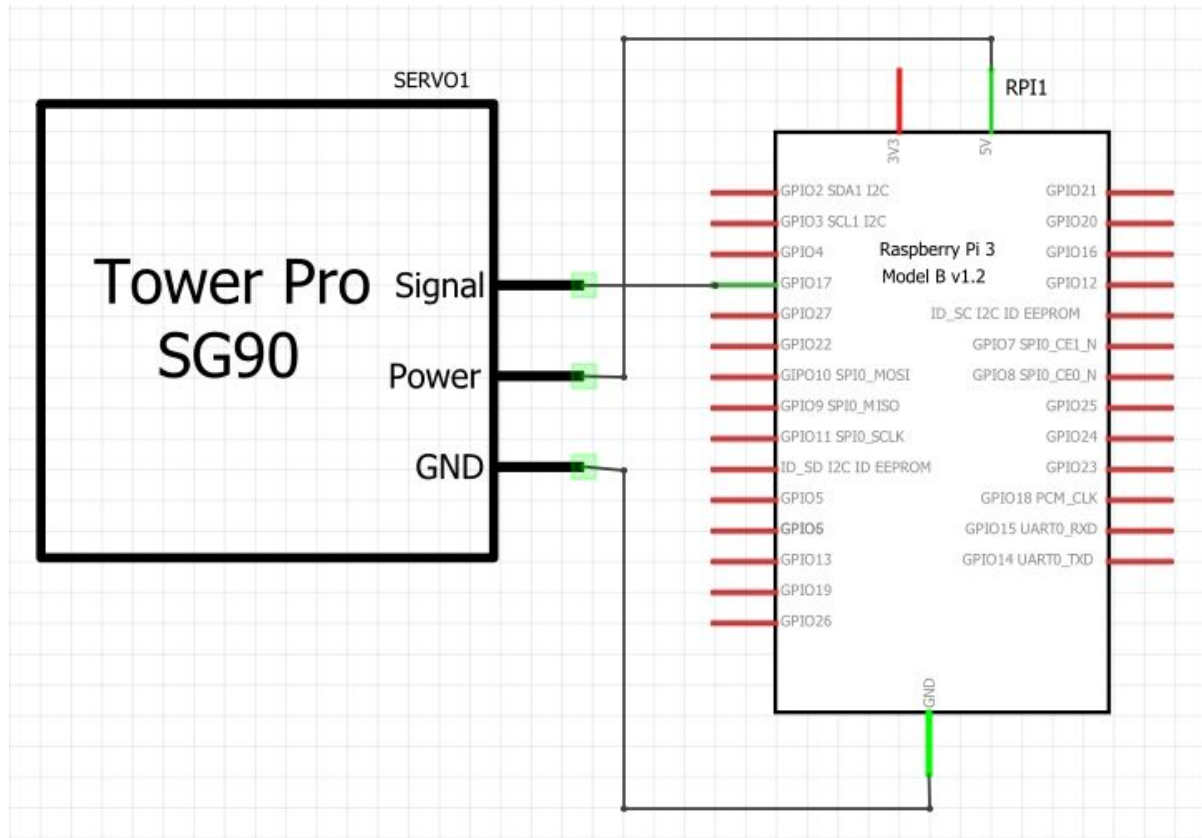

2. 1 x Servo motor SG90. SERVO1 on schematics

3. 1 x Raspberry Pi model 3 or 4 mini computer. RPI1 on schematics
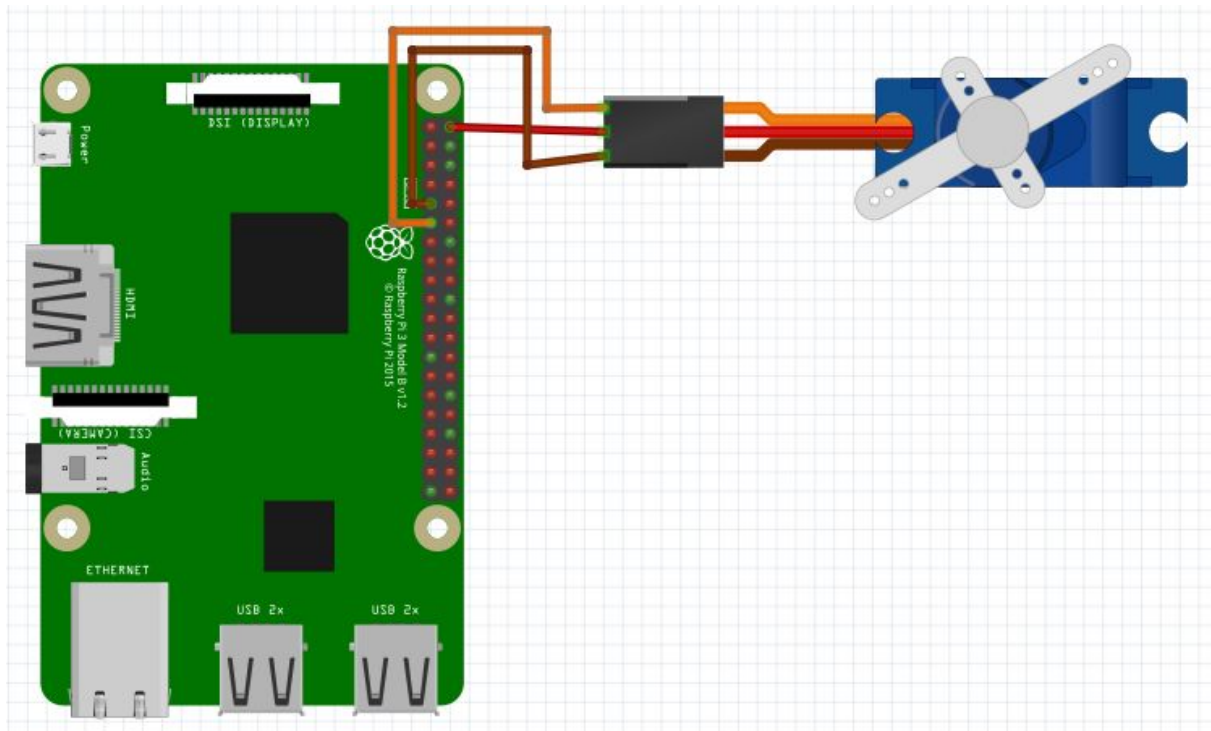

4. 1 x USB Power supply for Raspberry Pi.
5. 1 x MicroSD card with minimal 16GB capacity.
6. 1 x USB Keyboard. It will be used for the first time Operating system and software installation.

7. 1 x USB Mouse. It will be used for the first time Operating system and software installation.

Electrical schematic diagram

Breadboard diagram

Option 4. All in One solution.

List of electrical and hardware components:
1. Wires. For Breadboard connections it is recommended to have Du-Pont type Male-Female wire connectors.

2. 1 x Breadboard.
3. 1 x Red LED (5mm THT). LED1 on schematics

4. 1 x 1kΩ Resistor (THT). R1 on schematics
   Variations:

5. 1 x LCD 1602 I2C. LCD1 on schematics

6. 1 x Servo motor SG90. SERVO1 on schematics

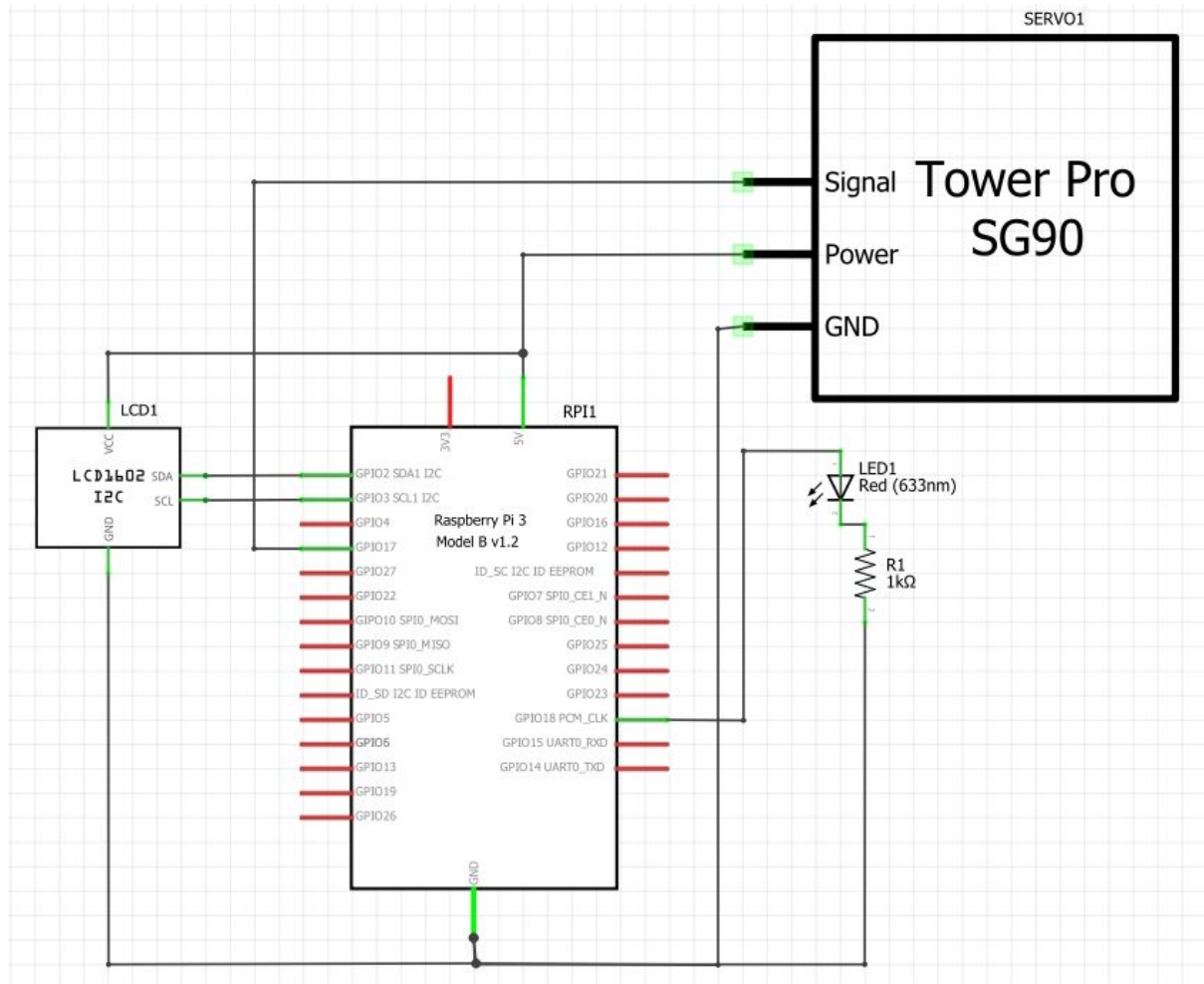7. 1 x Raspberry Pi model 3 or 4 mini computer. RPI1 on schematics

8. 1 x USB Power supply for Raspberry Pi.
9. 1 x MicroSD card with minimal 16GB capacity.
10. 1 x USB Keyboard. It will be used for the first time Operating system and software installation.

11. 1 x USB Mouse. It will be used for the first time Operating system and software installation.

Electrical schematic diagram

Breadboard diagram