# Hand Freezer Documentation

## Electric

**12V PSU,** powering: arduino, IR light, and LED through driver board.

**Arduino Uno**

**Shift Register Module:** shift register module designed by Amir for the Harp (74HC165D)

**LED driver:** FET for passing controlled 12V to the LED COB.

**IR lighting:** standard 12V security camera IR module (powered directly from PSU).

**2 IR** phototransistors (photodiodes?) connected to the Shift register board.

### Connections:

**Arduino**

|  |  |
| --- | --- |
| Pin | Description |
| A0 | To LD^ pin on ShiftRegister module |
| A1 | To CLK pin on ShiftRegister module |
| A2 | To SER\_OUT pin on ShiftRegister module |
| 4 | To LED driver digital input |

**Shift Register Module**

|  |  |
| --- | --- |
| Pin | Description |
| LD^ | To LD^ pin on ShiftRegister module |
| CLK | To CLK pin on ShiftRegister module |
| ER\_OUT | To SER\_OUT pin on ShiftRegister module |
| JP1 | Molex connector to Phototransistor #1 |
| JP2 | Molex connector to Phototransistor #2 |

## Code:

Code is hosted in github: <https://github.com/netanelf/hand-freezer>

## Pictures:

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