

# MagicHOLLO Optoelectronic Experiment Solution

Design different for U

## Atmospheric turbulence simulation experimental system Based on SLM

UPOLabs

EXPLORE PHOTONS ARCANE



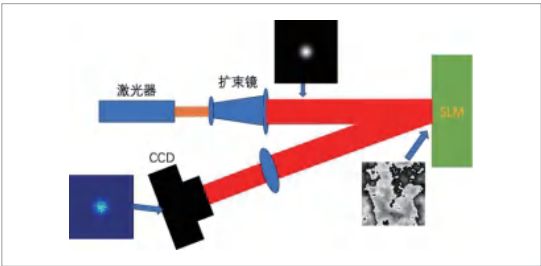
# Overview

Atmospheric turbulence is an important form of atmospheric motion and an important factor affecting space optical communication and astronomical telescope imaging.

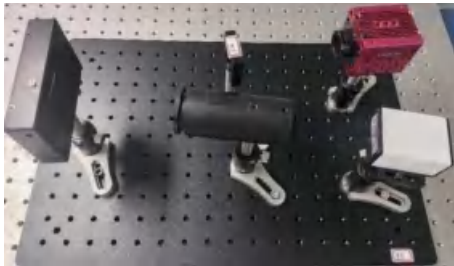
UPOLabs Atmospheric Turbulence Simulation Experimental System supports you for a better understanding on:

- 1.Simulation principle of atmospheric turbulence based on spatial light modulator(SLM).
- 2.Theoretical model of atmospheric turbulence and phase screen algorithm based on power spectrum method.
- 3.A transmission process of the Gaussian beam through atmospheric turbulence.

To achieve laser spot correction while a light beam passing through a turbulence system, we offer customizable adaptive optical distortion correction module for this product.



Atmospheric turbulence simulation experimental system Based on SLM schematic photo



Atmospheric turbulence simulation experimental system Based on SLM physical object

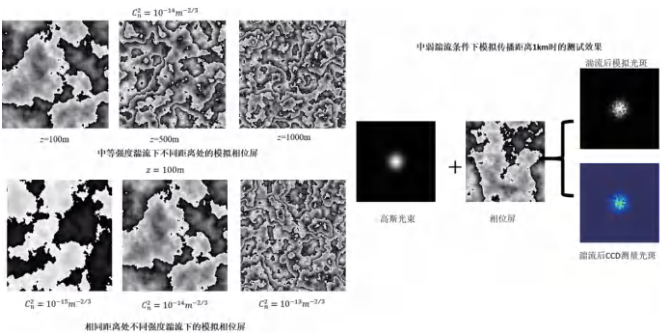
## Typical Configuration

| Magicholo-AT-80R          |                       |
|---------------------------|-----------------------|
| Laser                     | Wavelength: 1550 nm   |
| Optical Attenuation Slice | Based on Requirements |
| Beam Expander             | 2-5x                  |
| Spatial Light Modulator   | HD8SLM80R             |
| Lens                      | f=100 mm              |
| Polarizer                 | Based on Requirements |
| Camera                    | Based on Requirements |
| Adjustable Bracket        | Based on Requirements |

| Magicholo-AT-45R          |                       |
|---------------------------|-----------------------|
| Laser                     | Wavelength: 520 nm    |
| Optical Attenuation Slice | Based on Requirements |
| Beam Expander             | 2-5x                  |
| Spatial Light Modulator   | HD8SLM45R             |
| Lens                      | f=100 mm              |
| Polarizer                 | Based on Requirements |
| Camera                    | Based on Requirements |
| Adjustable Bracket        | Based on Requirements |

Regarding detailed introduction for the system configuration, please consult [sales@realic.cn](mailto:sales@realic.cn).

## DEMO



## Application

It is suitable for astronomical high-resolution imaging systems, adaptive optics systems .