

```
in mat4 model, view, projection;  
in vec4 position; // in object space  
in vec4 light_position; // in world space  
void main() {  
    vec4 position_camera = view * model * position;  
    vec4 position_world = model * position;  
    // ...  
    vec4 light_direction = light_position - position_world;  
}
```