

Create a walkthrough 3D model of a CS Department space.

This is a *Team Programming Project*: collaboration is not allowed except within your team. The project takes the place of the course final exam and is worth 30% of your grade. It is due via `'submit'` NLT **2359 Friday, 02 May**: no exceptions – **late submissions get zero credit**. You must also demo your project in person NLT **Wed 07 May 11:00**.

Teams:

Almond	}	
Fujimoto	}	Midn Study Area (MI310)
CollinsMinkel	}	
Shields	}	
Hartley	}	Dr. Stahl's office (MI356)
Ferguson	}	
Morse	}	Front office (MI346)

(See me for exactly what areas of these spaces I would like modeled)

Requirements:

- Be reasonably accurate in size proportions (i.e., take measurements!)
- Take digital photos to use as textures.
- Double-buffered, Z-buffered, face-culling disabled, perspective projection (120° FOV)
- All visible surfaces whether front or back facing will be lighted and shaded, or textured. Lighting: $k_a \approx 0.1$, $k_d \approx 0.4$. Your scene must show one or more obviously specular surfaces: $k_s \approx 0.5$, $n = 128.0$. Use Gouraud shading if a surface is not textured. All polygons will have a surface normal.
- Front-facing polygons are to have CCW vertex ordering.
- Allow for walkthrough of the space using the following interface:

```
'w'   move (translate) forward
LMB   move (translate) forward
'x'   move (translate) backwards
MMB   move (translate) forward
'a'   yaw (rotate) left
'<-'  yaw (rotate) left
'd'   yaw (rotate) right
'-'>' yaw (rotate) right
'↑'   pitch (rotate) up
'↓'   pitch (rotate) down
ESC   quits
'r'   resets to the initial state
RMB Menu:  Reset
          Exit
```

Submit: (1) All source code, (2) all textures, (3) a Makefile that builds the project, (4) a detailed summary of what each person on the team accomplished.