# **Polygon Modeling Tips and Tricks**

#### Vertex Extrusion and Chamfer Vertex

- You can use the Vertex Extrusion tool to add details such as spikes.
- Using the Vertex Extrusion tool on a vertex of a quad, will create triangles on the extrusion and turn the original quads into n-gons.
- Chamfer Vertex replace the vertex with a flat polygon face. Turns the triangle faces
  made with the vertex extrusion into quad faces. Also makes quad face in the place of
  the original vertex point.

### Splitting polygons

- Use the split polygon tool to create more precise edges compared to using the edge loop tool. It gives you much more control when adding detail.
- If you make a vertex in the wrong spot while using the split polygon tool, you can hit delete to remove the last vertex added, and continue placing new vertexes.
- When you are done placing the new vertex points, hit enter to create your new edge.
- If you create triangles and n-gons while using the split polygon tool, and that doesn't work with what you are making, you can select two vertices in the n-gon/triangle, and merger them, which turns them back into quads.

#### **Add Divisions**

- you can use the add division tool, to divide a selected face into more face creating high resolution.
- using the exponential controls, you can split a quad face in to 4 faces,2x2 (division level 1) or 16 faces 4x4 (division level 2)
- you can change the setting and create triangle divisions in exponential as well.
- You can change the lateral control settings to to control the amount of divisions on the u and v axis, (2x3, 2x4, 3x4, etc.)
- The add division tool does not function like the smooth tool, the extra divisions do not alter the shape at all.

## Append to polygon tool

- You can add an appendage to an existing polygon edge.
- add two points to create quad face to the existing polygon, add 3+ points to create ngon.

- In the append polygon setting, you can change the options with how many division are created in each appendage created.
- You can also use the append tool to fill in holes in existing polygons.