Progress Tracker

An Agent-Based Model of Urban Economics:

Evaluating Emergence & Evolution

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| **Week** |  |  |  | **Issues** | **Status** |
| 1 | Landlords | Build Land Area |  | Landlords placed at random on map in setup, travel random directions around map claiming free space. |  |
|  |  | Colouration/ Ownership |  | When creating their own land area, if there was a single patch left within their land they had to travel around at random to find it. | Fixed: If all 4 neighbours (NSEW) were belonging to the same landlord, it will change. |
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|  | Firms | Wage output | Randomised number for the wage gap based on the number of firms. | Overlapping firms. | Fixed: “in-radius” – each firm claims the space around them so they are unable to stack.  Extend: When the radius is decreased below the limit that allows all firms to be placed within it, reduce the maximum amount of firms on parameter slider. |
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|  |  | Place within Radius of City |  |  |  |
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|  | People | Love of Variety |  |  |  |
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|  | Calculations | Budget | Y is the budget: this is a Person’s wage after any commute cost has been subtracted. |  |  |
|  |  | Product Cost | PG is the price of goods and PL is the price of land/density. |  |  |
|  |  | Goods Cost | The total cost of the good PG is a function of its non-spatial base cost pg, the distance it needs to move (d), and the delivery cost to ship it over a unit of distance (c). |  |  |
|  |  | Land Cost |  |  |  |
|  |  | Utility Cost |  |  |  |
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