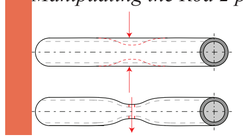
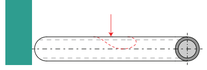
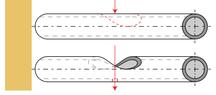
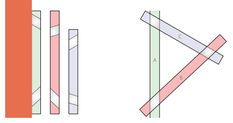
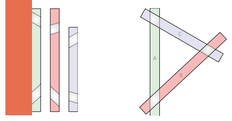
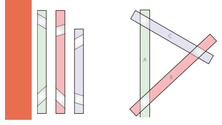
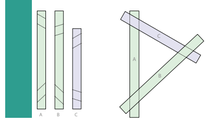
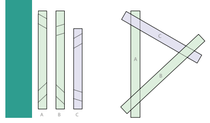
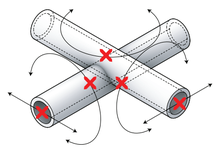
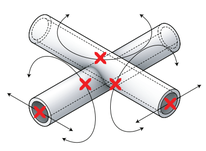
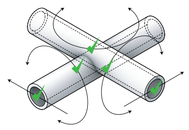
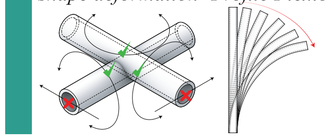
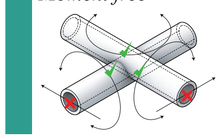
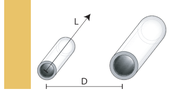
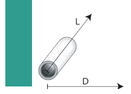
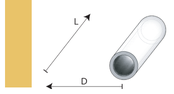
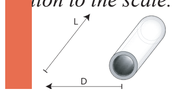
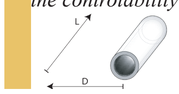
	
Fabrication Complexity	*Medium Complexity - Manipuating the Rod 2 processes* 	*Low Complexity - Manipuating the Rod 1 process* 	*Medium Comp' Manipuating the Rod - 2 processes Connector Fabrication* 	*Medium Comp' Rod-No manipulation Connector - High Complexity*  	*Medium Comp' Rod-No manipulation Connector - Medium Complexity - not manifactured in a single piece*
Data Complexity/Stock Management	*High Complexity - Mass Customization* 	*High Complexity - Mass Customization* 	*High Complexity- Mass Customization* 	*Low Complexity - Generic Parts* 	*Low Complexity - Generic Parts* 
Robotic Assembly	*Pipe gripper+Drill+press+manual Locking* 	*Pipe gripper+Drill+Disc Cutter* 	*Pipe gripper+Connector Gripper Disc Cutter+Drill* 	*Pipe gripper+Connector Gripper* 	*Pipe gripper+Connector Gripper* 
Profile Properties	*- Thin Aluminum Pipe -Flattening will affect strength in compression* 	*-Big Rod Diameter (Carving without affecting structural intergrity) -Aluminum/steel Pipes, Wooden Profiles* 	*-could be both Hollow or full -Aluminum/steel Pipes, Wooden Profiles* 	*-Flexible/thin Pipes or Long Rods* 	*-Rigid Profile - hollow or full* 
System Freedom/Flexibility	*-Translation and Moment Fixed* 	*Translation and Moment Fixed* 	*Translation and Moment Fixed Connector as a structural Weak point* 	*-Translation and Moment Locked -shape deformation -Profile Flexibility* 	*-Translation Locked -Moment free* 
Profile Limitation	*The unit has small scalability range* 	*Minimal Diamater is limited Maximal size depends on the size of the robot.* 	*Relation between the scale of the profile to the scale of the connector* 	*-Relation between the scale of the profile to the scale of the connector -The bending properties change in relation to the scale.* 	*-Relation between the scale of the profile to the scale of the connector -Scale of connector and profile affect the controlability on the movement* 
Robotic Aggregation - Possibility/challenges is there an advatage and what is it	*1.Saves routine and accurate tasks 2. rod manipulation while assembly - saves the need for stock Management. 3. allows variance in geomtery 4. flattening techqnique creates a geometrical tolerance*	*1. in 2.5d surface - saves routine and accurate tasks 2. advatage if the manipulation of the rods happend while assembly - saves the need for stock Management. 3. allows variance in geomtery*	*1. in 2.5d surface - - saves routine job 2. advatage if the manipulation of the rods happend while assembly - saves the need for stock Management.*	*1.can bend in accordance with material behaviour. 2. after removing from platform - shape is deformed to equalibrium*	*1.Setting the exact angle with the robot can pose a problem 2.saves a repetitive task 3. a better accuracy with the angles and the placement of the connector*
Complexy of assembly proccess - what is manual what is robotic - pre aasemble//post assembly	*Manipulating the rods and placement - Robotic. screwing rivets after placement - manual manual post assembly*	*Manipulating the rods and placement - Robotic. screwing rivets after placement -manual manual post assembly*	*Manipulating the rods and placement - Robotic. Connecting the rods - Robotic Manual Post assembly*	*placing the connectors - Robotic Placing and bendong the rods -Robotic final locking - manual Removing from Platform - Manual post assembly*	*placing the connectors - Robotic Rotating the rod to place -Robotic final locking - manual post assembly//post folding*
Geometrical Posibilities	*2.5d grid// stacking // patterns 2. when allocating the connection on a single axis - surface can be folded.*	*2.5d grid// stacking // patterns*	*2.5d grid// stacking // patterns*	*2.5d grid The bending makes the surface more rigid -further strain affects needs to be investigated*	*2.5d grid// stacking // patterns// deployable structures//3d geometry from a 2d surface*
Translation to Architectural Element	*1.planar surfaces that can be connected to form a 3d mesh (flat faces) or space frames.*	*1.planar surfaces that can be connected to form a 3d mesh (flat faces) or space frames.*	*1.planar surfaces that can be connected to form a 3d mesh (flat faces) or space frames.*	*1.planar surfaces that can be connected to form a 3d mesh (flat faces) or space frames. 2. connection is by the normal to the surface - or through nodes - bended profiles makes the planning of continues surface more complex*	*1. By letting one of the axes free (moment //translation) can achive folding of the produced 'sub element' - creating a 3d sub element in 2d manufacturing*