# RAPID Function Definitions:

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| **ID** | **Name** | **Number of args** | **Argument list** | **Description** |
| 1 | SetDigOutputs | 2 | Output, Value | Sets outputs including Vacuum Solenoid, Vacuum Pump, Conveyor Run, Conveyor Direction and Conveyor Status.  Value = 0 or 1 |
| 2 | Pause | 0 | n/a | Pause current task |
| 3 | Resume | 0 | n/a | Resume current task |
| 4 | Cancel | 0 | n/a | Cancel current task |
| 5 | MoveEF\_Pos | 7 | FrameOfReference, X, Y, Z, Roll, Pitch, Yaw | Move the end effector to a position relative to the frame of reference.  Measurement: meters, radians.  Frames of Reference: 1 = Table Home, 2 = Conveyor Home |
| 6 | MoveEF\_Linear | 4 | FrameOfReference, X, Y, Z | Move the end effector in linear mode relative to the frame of reference.  Measurement: meters(/s?)  Frames of Reference: 1 = Base Frame, 2 = End Effector Frame |
| 7 | MoveToPose | 6 | Theta1, Theta2, …, Theta6 | Set angles of joints 1-6. measurement: radians |
| 8 | ReorientEF | 3 | Roll, Pitch, Yaw | Reorient end effector without moving the tip. Measurement: radians(/s?) |
| 9 | JogJoint | 2 | Joint, Theta | Set angle of a single joint (1-6). measurement: radians |
| 10 | setSpeed | 1 | Speed | Set the speed of the robot [assumes the same speed is applied universally] |
| 11 | requestUpdate | 0? | n/a | Send an update of system status to MATLAB.  [assumes all info will be relevant and so all sent each time] |