

Develop Bicycle Schedule

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Plan, Direct, Control Project

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Develop Bicycle Schedule

Developing the schedule is the process of analyzing activity sequences, durations, resource requirements and schedule constraints to create the project schedule. The benefit of this process is it creates a schedule with durations and planned dates for completing project activities. This is a repetitive process used to determine start and finish dates for project activities and milestones based on accurate input from those working the project (Project Management Institute, 2013).

For the bicycle project, Team 4 used Microsoft project with data from the WBS Dictionary to create bicycle production schedule. Once the data was entered the team determine the start and finish dates for the overall project as well as for each WBS activity. The schedule also helped in creating the cost estimates and budget for the bicycle project as well. Figure 1 shows the schedule created in Microsoft Project.

Table 1-Bicycle WBS Schedule

| Task Name | Duration | Start | Finish | Predecessors |
|-----------------------|-------------------|--------------------|--------------------|--------------|
| Bicycle | 14.48 days | Thu 6/15/17 | Wed 7/5/17 | |
| Frame Set | 0.28 days | Tue 6/27/17 | Tue 6/27/17 | |
| Secure Frame | 0.28 hrs | Tue 6/27/17 | Tue 6/27/17 | |
| Install Handlebar | 0.03 hrs | Tue 6/27/17 | Tue 6/27/17 | 5 |
| Install Fork | 0.18 hrs | Tue 6/27/17 | Tue 6/27/17 | 3 |
| Install Seat | 0.03 hrs | Tue 6/27/17 | Tue 6/27/17 | 3 |
| Crank Set | 0.4 days | Tue 6/27/17 | Tue 6/27/17 | |
| Mount Pedals | 0.03 hrs | Tue 6/27/17 | Tue 6/27/17 | |
| Install Bearings | 0.06 hrs | Tue 6/27/17 | Tue 6/27/17 | |
| Install Crank Arms | 0.06 hrs | Tue 6/27/17 | Tue 6/27/17 | |
| Mount Sprocket | 0.03 hrs | Tue 6/27/17 | Tue 6/27/17 | |
| Wheels | 0.42 days | Tue 6/27/17 | Tue 6/27/17 | |
| Install Front Wheel | 0.04 hrs | Tue 6/27/17 | Tue 6/27/17 | |
| Install Rear Wheel | 0.09 hrs | Tue 6/27/17 | Tue 6/27/17 | 11 |
| Braking System | 0.01 days | Tue 6/27/17 | Tue 6/27/17 | |
| Mount Brake Levers | 0.1 hrs | Tue 6/27/17 | Tue 6/27/17 | 3 |

DEVELOP BICYCLE SCHEDULE

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|-----------------------------------|-------------------|--------------------|--------------------|----|
| Route Brake Cables | 0.03 hrs | Tue 6/27/17 | Tue 6/27/17 | 3 |
| Install Brake Pads and Mechanisms | 0.05 hrs | Tue 6/27/17 | Tue 6/27/17 | 3 |
| Shifting System | 0.02 days | Wed 6/28/17 | Wed 6/28/17 | |
| Install Derailleurs | 0.06 hrs | Wed 6/28/17 | Wed 6/28/17 | 3 |
| Route Shift Cables | 0.04 hrs | Wed 6/28/17 | Wed 6/28/17 | 3 |
| Mount Shift Levers | 0.13 hrs | Wed 6/28/17 | Wed 6/28/17 | 3 |
| Integration | 4.56 days | Thu 6/15/17 | Wed 6/21/17 | |
| Concept | 3 hrs | Thu 6/15/17 | Thu 6/15/17 | |
| Design | 6.75 hrs | Thu 6/15/17 | Fri 6/16/17 | 24 |
| Assembly | 1.5 hrs | Mon 6/19/17 | Mon 6/19/17 | 25 |
| Testing | 1.56 days | Tue 6/20/17 | Wed 6/21/17 | |
| Component Test | 1.25 hrs | Tue 6/20/17 | Tue 6/20/17 | |
| Product Test | 8 hrs | Tue 6/20/17 | Wed 6/21/17 | 28 |
| Customer Test | 3.25 hrs | Wed 6/21/17 | Wed 6/21/17 | 29 |
| Phone Dock | 5.28 days | Mon 6/19/17 | Mon 6/26/17 | |
| Install Dock Mount | 0.25 hrs | Mon 6/19/17 | Mon 6/19/17 | |
| Mount Power Supply | 4.4 hrs | Mon 6/19/17 | Tue 6/20/17 | 32 |
| Connect Bluetooth | 5 hrs | Mon 6/26/17 | Mon 6/26/17 | 33 |
| Project Management | 14.48 days | Thu 6/15/17 | Wed 7/5/17 | |
| Initiation | 1.88 hrs | Thu 6/15/17 | Thu 6/15/17 | |
| Preliminary Plan | 5.63 hrs | Fri 6/16/17 | Mon 6/19/17 | 36 |
| Planning | 0.63 hrs | Mon 6/26/17 | Mon 6/26/17 | 37 |
| Production | 6.25 hrs | Tue 6/27/17 | Tue 6/27/17 | 38 |
| Closeout | 0.75 hrs | Wed 7/5/17 | Wed 7/5/17 | 39 |

References

Project Management Institute (PMI). (2013). *A guide to the project management body of knowledge (PMBOK® guide) (5th ed.)*. Newton Square, Pa: Project Management Institute.